

Prejudice, Discrimination, and the Internet

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That which makes the study of prejudice and discrimination on the Internet exciting also makes it particularly challenging. Specifically, there are many topics and questions that have not yet been empirically explored, so while we currently have only a partial, nascent literature to draw upon, the opportunities are great. Nevertheless, while a small number of hypotheses have been directly tested, there is a growing literature that helps to establish a useful framework for the study of intergroup bias on the Internet. First, we would be well advised to look for relevant precedents regarding major communications innovations, really paradigm shifts, such as the advent of the telegraph, telephone, radio, and television. The Internet represents a shift in human communication and entertainment of comparable proportions. Thus, we may at the very least identify and describe a useful context for understanding the impact of communications technology on social psychology in general, if not intergroup bias more specifically.

Not surprisingly, others before us have made this connection. For example, Kraut et al. (1998), in discussing social involvement, noted that the advent of television likely has had a negative effect in that realm. This has relevance for intergroup bias because social involvement, or at least intergroup contact, is a demonstrated mechanism for reducing bias (e.g., Pettigrew & Tropp, 2000). To the extent that the Internet reduces direct personal contact it may undermine progress in this regard, as we will discuss further below. McKenna and Bargh (2000) have noted that the telephone and television, as with many technological innovations, were first met with considerable skepticism and apprehension and that a similar reaction has occurred to some extent with the Internet, due in no small part to perceptions of the prevalence of pornography on the Web.

What is not in doubt is that the Internet facilitates communication in many respects.

Information, including music, graphics, and video, is easily posted and retrieved from the World Wide Web. Audiovisual two-way communication on the Internet is possible, although not yet widely utilized. Electronic mail and chatrooms allow for free and, in some cases, real-time communication without borders. To the extent that communication builds bridges and breaks down barriers, one would expect the Internet to be a bias-reducing force. That, of course, depends on the type of information being shared and the nature of the interactions.

The nature of Internet-based interactions is crucial to the understanding of prejudice and discrimination on the Internet. Because these interactions have been, to date, mostly text-based, they lack much of the information conveyed in traditional, face-to-face, or even audio-only communication, such as tone, volume, gesture, facial expression (Bargh, 2002) as well as communicator characteristics such as age, size, gender, race/ethnicity, or physical stigma. This state of affairs leads us to make some interesting projections about prejudice and discrimination in cyberspace. Some of these projections are informed by classical research on prejudice and discrimination, but diverge meaningfully because of historical changes and the unique qualities of the Internet and the nature of computer-mediated social interaction.

In 1934, LaPiere published his now classic study investigating the relation between attitudes and behaviors, specifically with regard to racial prejudice and discrimination. LaPiere found that formal, written requests for hotel and restaurant accommodations for minorities were almost always rejected, but most of these people were accommodated when the services were requested in person. Wax (cited in Allport, 1954) and Linn (1965) observed similar discrepancies. Thus, one might predict that people's felt and expressed prejudice exceeds their discriminatory capacities. However, in a post civil rights era, where modern (McConahay,

1986), aversive (Gaertner & Dovidio, 1986), ambivalent (Glick & Fiske, 2001), and implicit (Banaji & Greenwald, 1995) forms of bias prevail and explicit expressions of prejudice are taboo, subtle, perhaps unintended forms of discrimination appear to persist (e.g., Correll, Park, Judd, & Wittenbrink, 2002; Greenwald, Oakes, & Hoffman, 2003) in the absence of overt bias. Consequently, we are inclined to predict the opposite of what LaPierre (1934) and his contemporaries observed. Specifically, decisionmakers today would not be likely to make an explicit decision to deny some resource or service on the basis of group membership, but, in the moment, might find an excuse to behave discriminatorily, as is borne out in research employing unobtrusive measures (Crosby, Bromley, & Saxe, 1980).

These conditions lead us to make some interesting, and seemingly paradoxical predictions about prejudice and discrimination on the Internet. Specifically, due to the anonymous, spontaneous, impersonal, and disinhibited nature of much Internet-based communication, prejudice may, in many ways, be more likely to be expressed overtly. On the other hand, due to automation and the ability of potential targets to also remain anonymous, perhaps concealing group-identifying cues, many forms of discrimination may be less common in cyberspace. Consequently, even though the Internet is in many ways the epitome of societal progress, prejudice and discrimination online may at least superficially resemble the pre-civil rights state of being reflected in LaPiere's (1934) research better than it does contemporary face-to-face interaction.

In this chapter, we will explore the important relation between the unusual mode of social interaction the Internet engenders and intergroup prejudice and discrimination. In doing this, we will attempt to apply theoretical coherence while covering the numerous interesting social and psychological aspects of the Internet as it relates to prejudice and discrimination. Making a

distinction between the internal mental processes of stereotyping and prejudice as opposed to the behavior of discrimination, this chapter will discuss these separately. First, we will consider the role of the anonymity emblematic of Internet-based communication in promoting stereotyping and prejudice, as well as the proliferation of hate-group activity online. We will then discuss the potential of the Internet to promote the reduction of bias, including the facilitation of research on that topic. With regard to discrimination, we will review the various means by which it can be reduced and enhanced online, including, again, the role of anonymity, but also such phenomena as cyberostracism, harassment, and institutional discrimination. Given the breadth of this topic and the relative dearth of extant research, this discussion will not be definitive, but we hope it will serve, at the least, as a useful foundation for further analysis.

### *Stereotyping and Prejudice on the Internet*

The “triarchic” theory of attitudes in social psychology divides this important construct into affective, cognitive, and behavioral components (e.g., Hilgard, 1980; McGuire, 1985, 1989). Similarly, intergroup bias (a specific type of attitude) can be broken down into its corresponding components -- prejudice, stereotypes, and discrimination. Traditionally, the term “prejudice” has often been used as the overarching rubric, under which there are attitudes, stereotypes, and discrimination (e.g., Allport, 1954). However, this strikes us as awkward and tautological, so we prefer to use the global term “intergroup bias” (Blair, 2001) and to reserve “prejudice” for the more affective (emotional or evaluative) component.

Having said that, we are going to group stereotyping and prejudice together for the sake of this discussion. This is not because we conflate these two distinct constructs (quite the contrary, e.g., Glaser, 1999). Rather, given our thesis about the paradoxical effects of the

Internet, it makes sense to group together the internal mental processes (stereotyping and prejudice) and contrast them with the outward, behavioral process (discrimination). There are many theories, such as Realistic Group Conflict Theory (Sherif, Harvey, White, Hood, & Sherif, 1961) and Social Identity Theory (Tajfel & Turner, 1979) that seek, with considerable success, to explain the origins of intergroup bias and conflict. We do not have space here to review them, or the vast literature on stereotype content, structure, formation, and change that indirectly informs the present discussion. In the interest of clarity and parsimony, we will take a simpler approach, assuming that there are multiple, non-mutually exclusive determinants of intergroup bias, and we will discuss them where they are specifically relevant to some feature of Internet-based social processes.

Our primary, and admittedly simple thesis with regard to stereotypes and prejudice is that they are more likely to be expressed and transmitted on the Internet than in most modes of communication. This would be the case because of the unusual level of anonymity that prevails online, thus leading people to express themselves in less self-conscious and socially desirable ways. On a less banal level, this same anonymity, coupled with the efficiency and unbounded nature of Internet-based communication, has led to the proliferation of racist hate-group activity, thus promoting intergroup bias. Lest one be thoroughly discouraged by these implications of the Internet for intergroup relations, it is heartening to consider that the Web offers promising opportunities for reducing bias as well. Each of these premises will be considered below, before turning to the effect of the Internet on discrimination.

*The effect of anonymity on prejudice.* Anonymity is one of the most distinctive and influential features of Internet-based communication (Back, 2002; Friedman & Resnick, 2001; McKenna & Bargh, 2000; Spears, Postmes, Lea, & Wolbert, 2002; Winter & Huff, 1996) and is

perhaps the most important aspect with regard to stereotyping and prejudice. McKenna and Bargh (2000) have rightly noted that the remarkable anonymity afforded on e-mail and in chatrooms can disinhibit and even “deindividuate” (Zimbardo, 1970) people, leading to relatively high degrees of expression of prejudice. Compounding this, they say, is the possibility that people expressing such attitudes will be reinforced by those who write in support, perhaps creating an “illusion of large numbers” (McKenna & Bargh, 2000, p. 64). Winter and Huff (1996), in their analysis of women’s efforts to find safe environments online, also indicate that this anonymity can lead to high levels of gender harassment on the Internet. Spears et al. (2002) caution that anonymous interaction should not be confused with nonsocial interaction and, in fact, argue that group identification can even be strengthened in anonymous, computer-mediated communication. Such enhanced ingroup identification could, in turn, contribute to stronger prejudice above and beyond the disinhibiting effects of anonymity.

Reference to the general literature on intergroup bias indicates that people are less likely to express biases when their identity is knowable (e.g., Fazio, Jackson, Dunton, & Williams, 1995; Plant & Devine, 1998). Furthermore, the relation between anonymity and setting (i.e., private vs. public) has been more generally explored in the domain of computer use. Richman, Kiesler, Weisband, and Drasgow (1999) performed a meta-analysis of computer-administered questionnaires, pencil-and-paper questionnaires, and face-to-face interviews to examine their effects on the social desirability of responses, finding that less social desirability distortion was exhibited when people’s computer use occurred in private. Computer use most often occurs in private; therefore, the private environment effects may be a better simulation of real computer use. The private setting may instill a greater assurance of anonymity and the ability to respond more freely with relative impunity. With regard to Internet-based expressions of prejudice, this

possibility was tested directly by Evans, Garcia, Garcia, and Baron (2003) who found that on Internet-based questionnaire measures of racial bias, respondents exhibited greater degrees of bias when giving their responses in a private setting, specifically, in the absence of an experimenter.

Spears et al. (2002) offer another manner in which the protection of anonymity may promote the expression of bias. They argue that online social behavior combined with anonymity augment group identities, making individuals more “socially responsive.” Results of experiments on identity salience conclude that social influence reaches its highest and most pronounced effects when individuals are isolated (in private) and when their identity is effectively hidden from the salient group. Therefore, group-based social effects including stereotyping, discriminatory actions, and group conformity are more likely to occur.

Postmes, Spears, Sakhel, and De Groot (2001) conducted an experiment testing the effect of anonymity on social behavior occurring on the Internet. Group members were either anonymous or identifiable and then primed with a social norm of efficiency or prosocial behavior. Anonymous group members exhibited the social norm primed to them consistently more often than identifiable members. In a second study, non-primed group members followed the behavior of primed group members only in the anonymity condition. It appears that anonymity can bolster group normative behavior, enhancing the potential for the expression of prejudice or discrimination if it is a group norm. Postmes, Spears, and Lea (1998) reached similar conclusions. When online users form common identity groups, and a feature of those groups is anonymity, adherence to group influence is enhanced. Instead of breaking down social boundaries, quite the opposite effect occurs. The social boundaries are strengthened. Hence, the substance of group norms significantly affects behavioral responses online (Postmes, Spears, &

Lea, 1999). Furthermore, in a study on self-stereotyping in online discussions, anonymity was shown to actually breed gender-stereotypic behavior (Postmes & Spears, 2002). Hence, intergroup biases are not necessarily reduced, but may still persist, and even be enhanced, in spite of anonymity's barriers.

In sum, for a variety of reasons, it seems reasonable to infer that people will be more likely to express bias in the anonymous and impersonal conditions that much of cyberspace affords. Nevertheless, this would be a worthwhile and fruitful direction of further study. Specifically, it would be useful to determine if, given increased expression of bias in anonymous computer-mediated communication, transmission of such biases occurred. One must consider that persuasiveness of messages is dependent to some degree on the reputation of the source (McGuire, 1985) and it is possible that anonymity undermines source credibility (Friedman & Resnick, 2001).

*Hate-groups online.* Less subtle than the effects of anonymity on normal discourse on the Internet is the proliferation of extremist activity. Estimates of the number of “hate sites” on the Web range in the hundreds (e.g., Anti-Defamation League, 2000; Back, 2002; Franklin, 2003; Gerstenfeld, Grant, & Chiang, 2003) and by some accounts, the thousands (Simon Wiesenthal Center, 2002), extending at least across the U.S., Canada, South America, and Europe (Beckles, 1997). The Anti-Defamation League (ADL, 2000), having compiled an extensive inventory and analysis of Internet-based extremism, warns that the Internet provides an excellent venue for hate-group promotion: “Whereas extremists once had to stand on street corners spewing their hate and venom—reaching only a few passersby—now they can rant from the safety of their own homes; anyone can easily create a Web site, propelling their message, good or bad, to the entire world” (p. 1). The ADL further notes that extremist presence in

cyberspace is not limited to e-mail and chatrooms, but includes sales of hate-group rock music, merchandise, racist video games, special kids' sites, and even the provision of Internet service because many mainstream Internet service providers (ISPs) and several countries prohibit hate speech or hate sites (see also Back, 2002; Gerstenfeld, et al., 2003; HREOC, 2002). Extremist groups also effectively promote their agenda by circulating racist and anti-Semitic urban legends online (Back, 2002; Lee & Leets, 2002). Lee and Leets (2002) experimentally tested the effectiveness of online "persuasive storytelling," specifically of racist urban legends, on adolescents, finding that explicit, low narrative messages (i.e., lacking plots or compelling characters) – perhaps corresponding best to most contemporary urban legends – had the most lasting persuasive effects.

Because of their prevalence and the breadth of ventures, extremist groups are likely increasing prejudice in society, and across societies, by disseminating racist rhetoric and by recruiting membership. Several scholars have noted that the qualities of the Internet are especially well suited to hate-group recruitment. The importance of anonymity, for example, in the extensive use of the Internet by extremists and their putative recruiting success, is explained by Levin (2002), who notes that people can access sites and even participate without disclosing their identity. Gerstenfeld et al. (2003) note that the posting of web pages allows for a high degree of image control, something extremist groups might have difficulty with in more traditional forms of mass media. Similarly, Burris, Smith, and Strahm (2000) have observed that "soft core" hate sites, those that are more subtle and perhaps even misleading, such as sites for children, may serve as effective recruiting tools, and that the borderless nature of the Internet allows supremacists to actively recruit in countries where such activity is illegal (see also Back, 2002). The promotion and provision of activities typically attractive to young people (e.g., rock

music, video games) appears to serve extremist recruitment well (Back, 2002) by appealing to an impressionable audience and making intolerant behavior normative. Simultaneously, it provides an acceptable and safe outlet for those who might otherwise try to avoid the stigma associated with such behavior (McKenna & Bargh, 1998).

### *Reducing Stereotyping and Prejudice with the Internet*

The preceding discussion has highlighted how the nature of the Internet, primarily due to anonymity, may contribute to stereotyping and prejudice in society by disinhibiting expressions of bias in the general public and by facilitating recruitment, organization, and information dissemination by extremists. Lest we be completely demoralized by this analysis, we should consider that the Internet also affords opportunities to reduce intergroup bias, through the active promotion of tolerance capitalizing on the ability to reach a broad audience, the facilitation of intergroup contact, the possibility of a long-term reduction in the importance of social categories as Internet-based communication becomes ever more commonplace, and the promise of the Internet for studying and thereby gaining greater understanding of intergroup bias. We consider these possibilities next.

*Promoting tolerance.* Perhaps the most direct effect on reducing bias on the Internet would be active programs to promote tolerance. This is not a theoretical premise. In addition to groups such as the ADL and the Southern Poverty Law Center (SPLC), with active websites tracking prejudice and discrimination, there are now sites that explicitly promote tolerance. Prominent among these is the SPLC's Teaching Tolerance program ([www.tolerance.org](http://www.tolerance.org)). The Simon Wiesenthal Center hosts the Museum of Tolerance (<http://www.wiesenthal.com/mot/>) which features an online learning center. The "Understanding Prejudice" site

(<http://www.understandingprejudice.org/links/reducing.htm>) is a clearinghouse of school-based activities, diversity training programs, community development programs, and other tolerance enhancing resources. Beyond Prejudice ([http://www.beyondprejudice.com/reduce\\_org.html](http://www.beyondprejudice.com/reduce_org.html)) is a website dedicated to helping reduce bias within organizations. Other organizations, not primarily devoted to promoting the reduction of prejudice and discrimination, such as the National Association of School Psychologists (see <http://www.nasponline.org/NEAT/tolerance.html>), offer prejudice-reducing materials on the web. Additionally, numerous organizations, from individual schools and libraries to statewide education departments (e.g., <http://www.cde.ca.gov/spbranch/safety/hmb/hmb.asp>) to national organizations (e.g., <http://www.peacecorps.gov/wws/guides/looking/lesson33.html>) to international organizations (e.g., <http://www.unesco.or.id/prog/culture/cl-promo.htm>), incorporate intergroup tolerance-promoting sections in their websites.

One information technological approach to decreasing prejudice that takes into account the potential of the Internet itself for promoting prejudice is to restrict a user's access to bigoted sites. Several software companies offer filtering software, particularly for sheltering children from interfaces their parents prefer they do not access, that can include hate-group or racist sites. The ADL has produced and offers Hatefilter, a filtering program that is tailored for hate sites.

According to the ADL,

Hatefilter is a free software product designed to act as a gatekeeper. It protects children by blocking access to World Wide Web sites of individuals or groups that, in the judgment of the Anti-Defamation League, advocate hatred, bigotry or even violence towards Jews or other groups on the basis of their religion, race,

ethnicity, sexual orientation or other immutable characteristics

(<http://www.adl.org/hatefilter/>).

The combination of tolerance-promoting and bias-filtering Internet resources may serve to mitigate intergroup bias, especially among young people who use the Internet most, and are targeted by racist groups online. However, that such a mitigating effect is really occurring is an empirical question that remains to be answered.

*Does Internet-mediated “contact” reduce bias?* The most prominent and well-tested psychological paradigm for reducing intergroup bias is the Contact Hypothesis, the idea that bringing people from different groups into direct contact and interaction will reduce stereotyping and prejudice (see Pettigrew & Tropp, 2000, for a thorough review and meta-analysis). It is possible that the Internet, with its ability to promote communication across physical and perhaps cultural boundaries, has the potential to profoundly reduce intergroup bias.

Allport (1954) delineated specific conditions for contact to be effective, including equal status, sanction by authority, common goals, and a noncompetitive relationship. With regard to determining if Internet-based intergroup contact can effectively reduce bias, we need to consider first that such interactions are qualitatively different from the types of face-to-face contact that have typically been involved in studies on this topic. One might question whether computer-mediated communication (CMC) is “contact” at all.

As far as Allport’s (1954) conditions are concerned, it is possible that CMC would have mixed effects. Status parity, for example, would likely be enhanced because status cues, such as gender, age, and attractiveness, are less likely to be evident. Authority sanction, on the other hand, may lack palpability in CMC, but it is certainly attainable. Interdependent pursuit of common goals can also be achieved online. Perhaps this, too, would be less tangible, and

therefore less effective, than with face-to-face contact, but with increasing work and commerce occurring online, it seems feasible to attain meaningful degrees of these conditions.

Importantly, Pettigrew and Tropp (2004), in their meta-analysis of contact studies, have found that while Allport's (1954) conditions enhance the bias-reducing effects of contact, it is not necessary that *all* be present simultaneously for bias to be reduced. Mere contact appears to be a sufficient condition for bias reduction, and this reduction appears to be lasting and to generalize beyond the individuals with whom one has contact and even beyond the groups to which they belong (Pettigrew & Tropp, 2004). However, what may pose a more profound limit on most Internet-based intergroup contact is the lack of information about one's interaction partner's group membership, compounded by the lack of salience (the absence of continuing and tangible cues) of that membership even if it is made known. Consequently, there is an irony here in that the very quality of the Internet that enhances equal status – the removal of group identification – may undermine the effects of contact.

Even if group identity can be made salient, online intergroup contact may not have the desired effect. Postmes et al.'s (1998) laboratory-based research on the effects of inter- and intragroup contact in computer-mediated communication indicates that, despite the potential of the Internet to remove demographic and status barriers, identification with one's ingroup and biases toward outgroups can in fact be enhanced through CMC. Postmes, Spears, and Lea (2002), in two Internet-based experiments, found that intergroup (in fact, international) communication led to greater polarization when the groups were “depersonalized” (i.e., when the interaction partners' group membership was relatively salient) as opposed to “individuated.” They also found that stereotypes were more salient when the outgroup was depersonalized. Similarly, Douglas and McGarty (2001) found that when online communicators were identifiable

to an ingroup audience, they exhibited greater stereotyping in descriptions of outgroup members. These results confirm the complexities of Internet-based intergroup contact. Specifically, the necessary condition, for contact to reduce prejudice, of recognizing the outgroup to which the interaction partners belong, may undermine the prejudice-reducing effects of contact when it occurs on the Internet, perhaps because of the absence of face-to-face, personal interaction and the individuation and empathy that engenders.

In sum, there may be short-term, or even immediate reductions in the expression of prejudice on the Internet, purely as a function of the removal of many group-identity cues. The potential for long-term prejudice reduction from greater intergroup contact via the Internet because of its relative lack of boundaries, however, poses a less propitious scenario. To the extent that Internet-based communication inhibits the transmission of group membership cues and even appears to exacerbate group preferences in some circumstances, significant and widespread reductions in prejudice are not likely. As the medium shifts away from text-based communication to more multimedia (i.e., audiovisual) transmission, this state of affairs may change.

*Studying prejudice with the Internet to gain greater understanding.* In addition to gaining knowledge of how prejudice operates online, something of increasing importance as more social interaction occurs there, social psychologists have begun using the Internet to investigate more general principles of intergroup bias. The Internet allows for rapid access to many individuals at relatively low cost, through e-mail recruitment and web-based survey and experiment media. With a growing number of social psychological experiments being conducted with computer interface anyway, this development was inevitable.

In addition to making data collection relatively cheap, as discussed above, the Internet opens up access to groups that may otherwise be difficult to recruit, such as members of marginal or stigmatized groups (e.g., Glaser, Dixit, & Green, 2002; McKenna & Bargh, 1998, 2000). This allows for surreptitious observation of “natural” behavior in the tradition of the lost-letter technique (Milgram, Mann, & Harter, 1965) that was developed to study helping behavior and later adapted to the study of attitudes, including prejudice (e.g., Montanye, Mulberry, & Hardy, 1971). In fact, the lost-letter technique has been adapted directly to the Internet by Stern and Faber (1997) who investigated the extent to which people would return misdirected e-mail messages to the sender as a function of the political views expressed in the message. Although they found no effect of political content, the potential of such a technique is clear.

Shohat and Musch (2003) similarly capitalized on the nature of Internet-based interactions to study unobtrusively intergroup bias by manipulating the ethnicity of a seller in an online auction. This study will be discussed more thoroughly below with regard to discrimination, but it serves as an excellent example of the opportunities available for research in this area, and therefore the potential for gaining greater understanding of prejudice in the service of reducing it.

Glaser et al. (2002) used the Internet to directly assess what they considered the overestimated impact of economic variations on hate crime (Green, Glaser, & Rich, 1998). To gain a sense of relative effects of factors that might precipitate hate crime, one would want to study populations that are most likely to have some meaningful variance in this low base-rate behavior. Accordingly, Glaser et al. (2002) turned to White racist chatrooms to assess the reactions of participants there to references to job competition with Blacks, Black migration into White neighborhoods, and interracial marriage. The research indicated that denizens of racist

chatrooms were significantly more likely to advocate engaging in anti-Black hate crime if the posed scenario involved interracial marriage, and, consistent with archival research results, there was virtually no effect of job competition, an economic factor, on such advocacy of violence. Obtaining meaningful (i.e., potentially predictive) data on advocacy of interracial violence as a function of experimentally controlled variables would be extremely difficult, if at all possible, without the access and anonymity enabled by the Internet. In this case, as with the similar work by McKenna and Bargh (1998) and others, the Internet has allowed for an understanding of social psychological phenomena that might otherwise be beyond our reach.

Lee and Leets (2002), as described above, have also made use of Internet-based access to racist groups, obtaining real content from racist sites and testing the persuasiveness of different types of messages. Using a general population sample, and therefore being able to employ a more standard and straightforward survey method than Glaser et al. (2002) could, they were able to achieve considerable understanding of the *transmission* of prejudice using real-world messages from groups that, without the Internet, it may be difficult to gain access to safely. Perhaps the greater understanding of how prejudice operates and is transmitted made possible by research of this sort will ultimately lead to meaningful reductions in prejudice and discrimination and their effects.

While the above-described studies take advantage of the unique characteristics of the Internet that allow access to groups and information that might otherwise be difficult to attain, there is also a massive and active undertaking to harness another strength of the Internet to gain a broad understanding of intergroup bias. The Internet allows for highly cost-effective collection of data with samples of a magnitude previously unknown even to public opinion pollsters. Nosek, Banaji, and Greenwald (2002a; see also Nosek, Banaji, & Greenwald, 2002b) have

recognized this potential and, since the mid-1990's have collected data from literally hundreds of thousands of participants with an ever-expanding and evolving collection of Web-based Implicit Association Tests (IAT).

Originally developed as a laboratory-based, computerized measure of nonconscious attitudes and beliefs (i.e., those that reside outside of conscious awareness and control), the IAT, which involves measuring the relative ease (speed and accuracy) with which people can make categorization judgments when exemplars of concepts are paired one way or another (e.g., Black with negative/White with positive vs. vice versa) has been widely used and well validated (e.g., Greenwald, McGhee, & Schwartz, 1998; Greenwald & Nosek, 2001; McConnell & Leibold, 2001). By making a very user-friendly portal to multiple IAT's available and widely linked on the Web, Banaji, Greenwald, Nosek, and their collaborators have been able to obtain tens of thousands of test results regarding a number of different types of implicit associations. Furthermore, the samples are so large that, even if they represent only themselves, they are probably important.

Based on over 600,000 individual web-based IATs, Nosek et al. (2002a) reported, among other findings, that respondents on average showed a clear preference for White over Black, and young over old, and tended to link men with science and career and women with liberal arts and family. Furthermore, the ingroup favoritism that tends to be observed in low-status groups when explicit attitude measures are used is less consistent in the IAT data, with preferences being dictated more by prevailing cultural biases. More specifically, while an overwhelming majority of self-described White respondents show a preference for White over Black, self-described Black participants are about evenly split. While there are clear questions about the representativeness of the samples obtained (e.g., Are they skewed toward higher education,

higher income, etc.?), the researchers have obtained a fair amount of demographic data on respondents and this at least allows for comparative analyses.

The web-based IAT is now so well linked and utilized that it has become part of American popular culture, being referenced in at least one prime-time television show (*King of the Hill*) as well as numerous news stories. An adaptation of the procedure is available through the Southern Poverty Law Center's website. These developments indicate that, in addition to the knowledge gained through the analysis of web-based IAT data and the indirect effect that has on reducing prejudice through scientific progress, there is an increasingly direct effect on prejudice reduction through the raising of public awareness<sup>1</sup> of the prevalence of prejudice.

*Problems with Internet-based research on prejudice.* It should be made clear that using the Internet to study social psychology in general, and prejudice more specifically, is not without hazards (see Skitka & Sargis, this volume, for further discussion). Hamilton (1999) noted that online researchers do not consistently utilize the safeguards typically employed to protect research participants' confidentiality and emotional well-being. In particular, informed consent and thorough debriefing seem less reliable. It is not clear that there is a systematic difference between traditional (in person) social science research procedures and those used online in this regard, but it is likely that, given the well-established procedures in place at most research institutions, fundamental deviations in the research paradigm (such as those associated with the Internet) will be accompanied by deviations in related procedures. In some cases, informed consent is no doubt overlooked due to negligence. In others, for example in quasi-observational research on sensitive groups and topics (e.g., Glaser et al., 2002; Shohat & Musch, 2003; Stern & Faber, 1997), foregoing informed consent is necessary and deliberate. In such cases, obtaining informed consent would undermine the purpose of the research, to observe surreptitiously

naturalistic behavior in groups to which access might otherwise be impossible. Glaser et al. (2002), for example, addressed these concerns by ensuring that interactions with confederates were entirely voluntary and in no way coercive, that interactions did not deviate from the normative behavior in the environment, and that respondents' anonymity was carefully protected through the use of their own pseudonyms and the immediate assignment of random identification codes. Interestingly, Nosek et al. (2002b) point out the advantage that the physical absence of an experimenter is likely to reduce the otherwise coercive nature of many laboratory experiments (as evidenced in studies on obedience to authority, e.g., Milgram, 1974).

The tradeoff between informed consent and valid research that is sometimes necessitated with reactive populations or sensitive subjects must be weighed very carefully and seriously. Just as with surreptitious research techniques of the past, such as the lost-letter method (Milgram et al., 1965), informed consent is not always possible. And much traditional laboratory research involving unobtrusive measures of prejudice and discrimination (see Crosby et al., 1980), while involving some official informed consent, cannot include complete prior information about the actual nature of the research, lest it become obtrusive. Such research must be conducted in as innocuous a manner as is conceivable.

Other ethical concerns raised about Internet-based research have to do with ensuring confidentiality of participants' identities and safe storage of their data, as well as avoiding the inclusion of minors without parental consent (Nosek et al., 2002b). Nosek et al. (2002b) offer some constructive advice on these matters, noting that, thanks to encryption technology, web-based data may in fact be more secure than standard paper-and-pencil or videotaped data used in most social psychological experiments. Additionally, they note that there are established

systems for restricting Internet transactions to adults (e.g., “Adult Check”) that could be responsibly employed by researchers.

Even for Internet-based research that is not so unobtrusive, there are unique problems that must be addressed. The anonymity inherent in Internet-based communication that is so advantageous for assessing sensitive constructs can also pose a pitfall to the extent that researchers cannot be sure that participants are who or what they say they are (see also Skitka & Sargis, this volume, for a similar discussion). Nosek et al. (2002a, 2002b), for example, acknowledge the real possibility that many of their hundreds of thousands of respondents are not giving accurate information about themselves, and many may be engaging in the same tests multiple times under different identities. Because of the uncontrollability of the constructs the IAT is designed to measure, IAT data analysts can, to a considerable degree of effectiveness, screen data to detect “cheaters” (i.e., people who intentionally try to manipulate the results of their tests, either to present themselves more positively or simply to cause mischief). However, identifying those who misrepresent themselves on the questionnaires that accompany the IAT is not as straightforward. On the other hand, again because of the extra anonymity inherent in online communication, there is good reason to believe that responses to web-based questions are *more* accurate (Evans et al., 2003). It is too early to tell, and systematic analysis of these issues is warranted, but the net effect of these competing factors may be negligible.

*Ecological validity of Internet-based research.* There are legitimate questions about the generalizability of attitudes and behaviors assessed online and the representativeness of samples drawn when a clear selection bias is based on access to a networked computer and the requisite interests and skills for being active online. Nevertheless, with increasing prevalence of Internet access and increasing time online for users, not to mention improving ratios of productive

activity online relative to down time as a result of rapidly improving transmission technology (e.g., DSL, digital-cable), online activities are ever more ecologically valid representations of human social life simply because increasing proportions of our lives are spent online. Internet-based research is no longer just a convenient proxy for “real” research. Online behavior *is real* behavior. This is, perhaps, especially important to keep in mind as we turn our attention now to the behavioral aspect of intergroup bias: discrimination on the Internet.

### *Discrimination and the Internet*

Long heralded as a medium through which equality and democracy could be brought to the masses, the Internet has so far met with mixed success in this regard. One promising area, however, is the Internet’s apparent ability to weaken discrimination and discriminatory effects. Internet users are bestowed with the unusual capacity to release as much or as little of their true identity as desired, allowing them to safeguard themselves from the negative reactions they may encounter when these identity cues are salient in daily life. Although the anonymous nature of Internet interactions may reduce discrimination, there are other facets of the Internet to consider in an attempt to understand its overall effects on the broad phenomenon of discrimination.

*Discriminatory effects of software.* A growing body of research exists on general discrimination experienced through text-based communication, including, but not limited to the Internet, and propagated through computers and their related networks. Because Internet use entails computer use, computer-based discrimination most likely also relates to Internet discrimination. The possibility of computers “behaving” discriminatorily seems oxymoronic. However, some research illustrates how this might occur. In a study performed by Cooper, Hall, and Huff (1990), sex-stereotyped (i.e., with elements typically preferred by boys versus girls)

educational computer programs were administered to middle school students with their responses examined for discriminatory effects. Results indicated that using a cross-gender-specific type of software increases stress by users when used in a public setting, such as a classroom.

Importantly, similar situational stress effects were not replicated when the students performed the various tasks in a private environment, perhaps suggesting a possible escape or way to lessen the discriminatory impact of computers. Though not specifically involving the Internet, this finding supports the contention that discrimination is reduced primarily because of the anonymity experienced by computer users. While using computers in a public forum, that protection is likely reduced, perhaps allowing the situational stress to occur. Cooper et al. (1990) examined educational computer programs, while numerous similar programs and games are available online. Because schools and students are incorporating the Internet into educational routines, these discriminatory effects may be consequential.

*Cyberostracism.* One form of discrimination, social exclusion, may occur online. If it does, it could have real effects on its targets. Williams, Cheung, and Choi (2000), seeking to examine such effects, labeled the phenomenon “cyberostracism,” and created an online experiment involving a virtual tossing game to study it further. Some participants were assigned to the “ignored” condition, and the subsequent reactions were tracked. The study demonstrated that ostracized participants experienced a loss of control, more negative mood, and were more likely to conform to others on a later task. Williams et al. note that cyberostracism can occur for highly ambiguous reasons, since it often transpires in chatrooms that lack useful cues present in normal interactions. It is this same ambiguity, however, that can serve as a partial buffer against negative effects. Because of the lack of cues, attributions of the reasons for the ostracism may vary. If race or other stigma cues are made salient by a name or style of response, for example,

cyberostracism may still occur and supposed anonymity may only provide partial protection.

Williams et al. (2002) showed that the attributional protection might help protect self-esteem, depression, and helplessness, but may not be as effective in thwarting perceptions of lacking belongingness or meaningful existence. Cyberostracism entails numerous facets to examine. At the very least, it illustrates how the negative effects of discrimination are not likely confined to face-to-face interactions.

*Gender harassment on the Internet.* Discrimination and harassment experienced by women via the Internet has been another area of study. Gender is more frequently identified than race in online conversations, allowing the possibility for gender discrimination to occur more readily. The Internet was touted as a place for women to finally free themselves of the harassment traditionally experienced in classroom, employment, and other settings, but Biber, Doverspike, Baznik, Cober, and Ritter (2002) found that harassment experienced online may in fact be worse, or at least perceived as worse than traditional harassment. Surveying students' perceptions of "potentially harassing acts" described as occurring online or in a classroom setting, Biber et al. discovered that misogynist comments, including unwanted sexual and gender harassment and sexual coercion, were rated as more threatening and harassing when the comments were made online. The online discourse medium may actually intensify perceived harassment, instead of lessening it.

In an effort to reduce the possibility of discrimination and its effects on the Internet, separate electronic forums have been created for stigmatized groups of people. Systers, one such network, was established in 1987 by female computer scientists, and subsequently studied by Winter and Huff (1996). With electronic harassment common in chatrooms and other areas of the Internet, women programmers desired not only an escape, but a supportive area where their

opinions and ideas could be shared. Women reported that men dominated most Internet chatroom discussion, causing a masculine style of speech to become the norm, and alienating women in the process. According to Winter and Huff, many women turned to chatrooms dedicated to women's issues to gain equal access and voice on the Internet, yet surprisingly found that the majority of responses and posts were from men.

*The importance of anonymity in online discrimination.* Despite the variety of human and social influences on it, the Internet's basic format often produces a reduction in discrimination, largely due to anonymity of potential targets. For example, the value of the ability to remain anonymous via the Internet was made apparent during the conflict in Kosovo, where people could communicate with each other and express their feelings without fear of reprisal from the highly repressive government (McKenna & Bargh, 1998). Computer-mediated conversations provide users with the freedom to release or withhold as much of their identity as they desire, creating a comfortable environment. Many people stigmatized by race, gender, disability, or sexual orientation, for example, seek out the Internet as a place of relief and escape from the "real world" (McKenna & Bargh, 1998; McKenna & Seidman, this volume). It is the flexibility of anonymity—it being the user's prerogative to share information—that may be responsible for any decrease in discrimination.

In addition to having the ability to release less of one's own personality, the anonymity of the Internet permits a user to create an altogether fake identity. According to Riva (2002), the use of fake identities on the Internet is highly prevalent and often takes the form of gender switching. As McKenna and Bargh (2000) explain, the Internet's intrinsic ability to effectively shelter one's true identity allows people the opportunity to try out an assortment of new "selves," which would be impossible in "real" life. People chronically battling discrimination can break

away from and even take on the identity of a member of the high-status group. Many women, in an attempt to circumvent discrimination, choose to change their login names, one of the only identifying markers on the Internet, to a gender neutral name (Winter & Huff, 1996). In any permutation, discrimination is diminished online by the mere fact that potential discriminators are less likely to know that they are speaking with a member of a minority or stigmatized group.

Anonymity, however, can have negative effects on behavior, which can lead to discrimination. As argued earlier, anonymity may actually increase prejudicial expressions. It may also more directly affect discriminatory actions. Anonymity has long been linked to the psychological phenomenon of deindividuation, in which a loosening of morals and self-guided standards of behavior occur (Zimbardo, 1969). People may be more likely to perform anti-social acts under anonymous conditions, with no possible way to be linked to the act, than when their true identity remained evident. Members of racist groups, for example, often use anonymous e-mail accounts to harass and threaten minority group members (McKenna & Bargh, 2000). Furthermore, people in general may be more inclined to post offensive messages, or “flames” in chatrooms, knowing that the message will not be traced back to them (McKenna & Bargh, 2000). The role of deindividuation has been more directly addressed by Postmes et al. (1998, 1999; see also Douglas & McGarty, 2001) with regard to groups in cyberspace, but this approach (discussed above) has more to do with group cohesion and influence than with the loss of inhibition and outgroup-directed hostility traditionally associated with deindividuation.

*Computer-institutional discrimination.* With the pervasiveness of computer networks in daily life, many important tasks and decisions are being handled completely by computers. This process of automation, in essence decisions made by computers, eliminates ad hoc human bias from entering the decision-making process. Automation may be a promising way to reduce

discrimination, which occurs in interview processes such as mortgage applications, job applications, car sales, and even health examinations.

Race-based mortgage discrimination, for example, has been long documented (e.g., U.S. Department of Housing and Urban Development, 2000). Mortgage discrimination resulting from personal prejudice is prevalent because the decision to grant a loan involves a high degree of discretion on the part of the loan officer (Openshaw, 2000). Though they may attempt to remain neutral, lending agents' personal preferences and stereotypes can contaminate the process.

Mortgage applications are now available online, and instead of a loan officer judging an applicant's merits based on physical appearances, a computer compiles all of the necessary data and makes a decision, which can be binding. Approximately 1.5% of homebuyers obtained their mortgage through an online process, totaling over \$20 billion, in 1999 (Openshaw, 2000). The color- (and gender-) blind aspect is the main advantage in completing the online process, as complete anonymity of race and gender can be maintained. Still, caution should also be maintained. It is possible for computers to exhibit forms of institutional discrimination, having a disparate impact on various groups of people depending on how the computers are programmed. Human mediation, either during the process or in the programming stages, can bias computer-based decisions as well. If programs are set up to reproduce common "profiles" of applicants, or if they collect demographic data, there is potential for discrimination to occur despite the illusion of fairness.

*The digital divide.* The Internet is often touted as a great equalizing force, allowing parity between participants. In any given interaction, there is the potential for greater equality than in face-to-face interactions because many status cues are absent. Status cues include any characteristic that reflects social inequalities in our society, including gender, age, race, ethnicity,

size, and income. These cues can be made irrelevant: when it is required that all other group members share a common bond, social status distinctions are lessened. Networks specifically created for certain types of people, such as the Systers computer scientist electronic forum, serve to accomplish this goal (Winter & Huff, 1996). However, even if there is the potential for equality in interactions on the Internet, there remain clear disparities in access to the Internet itself. Racial and ethnic minorities are dramatically lower in their access to and use of the Internet, and there is some evidence the gap is widening (Jackson, Ervin, Gardner, & Schmitt, 2001; National Telecommunications and Information Administration, 1995). This disparity, dubbed the “digital divide,” in which relatively privileged people obtain benefits while others do not, challenges the notion of the true egalitarianism of the Internet. The digital divide separates the “haves” from the “have nots,” denying the latter not only access to the information on the Internet, but also a variety of important services (Hoffman & Novak, 1998).

In a survey by Nielsen Media Research in 1997 (as cited in Hoffman & Novak, 1998), European Americans had considerably more access to computers and the Internet than did African Americans. European Americans were twice as likely to have actually logged on to the Internet in the preceding week. In a 1996 study by Graphic Visualization Research (as cited in Beckles, 1997), 88.6% of users were European American and only 1.3% African American in the United States. Race differentials have even been found in the lowest income bracket, in which European Americans were six times more likely to have used the Internet in the preceding week and have Internet access at home. Factoring out education differences did not eliminate the racial digital divide, with European Americans still more likely to have access and own computers (Hoffman & Novak, 1998).

Not surprisingly, income positively correlates with computer use. A recent study revealed that 85% of households with incomes above \$75,000 possessed a computer at home, while only 19% of households with incomes less than \$15,000 did (Borgida, Sullivan, Oxendine, Jackson, & Riedel, 2002). Internet access boasts similar discrepancies at 78% versus 13%. Rural Americans are also lagging behind urban and suburban Americans in Internet access, with low-income rural households boasting the lowest rate of 11.3% (Borgida et al.). As Beckles (1997) states, the “toll charge” is out of reach of many of the poorer individuals, who are disproportionately minorities. Similar trends are also seen globally.

It is not only that many minority group members lack sufficient capital to participate actively in the information age. In addition to access problems, many African Americans must overcome “techno-phobia” and need training to use the Internet. They may feel some form of stereotype threat, in which they prefer to avoid the medium rather than confirm the stereotype that African Americans are technologically illiterate (Jackson et al., 2001). With a relatively low number of African American technicians, the African American community has a dearth of “cultural mentors” to provide training and serve as technical resources (Beckles, 1997). Furthermore, the racial and income disparities in actual use of the Internet serve to sustain and perhaps widen the digital information divide. Students of higher income, and European Americans in particular, more often use special software meant to develop more advanced skills.

Racial disparities in Internet use transcend mere income disparities. In the Jackson et al. (2001) study, 787 college students’ Internet habits were studied, revealing that racial differences appeared only in e-mail use for this college sample, with European Americans using e-mail more than African Americans. One explanation given for this difference is that, due to the overall lower rate of access to computers, African Americans tend to have fewer people they know with

whom to communicate online. As a result, African Americans are less likely to use the Internet for one of its primary purposes -- communication. Some investigators (e.g., Wilson & Gutierrez, 1995) have also noted that cultural biases may exist on the Internet, discouraging its use by minority members. Because there exist such disparities in access, most of the content on the Internet has been developed by and for the most common users, namely European American middle-class individuals. The overrepresented nature of European American issues creates an environment that is less pertinent to the daily needs of minorities, further isolating them from the information age (Wilson & Gutierrez).

Lack of Internet access does not merely deny individuals the ability to receive e-mails and communicate with friends. It can have much more pernicious effects. Because the groups with less access are often those that face discrimination in daily life due to status or ethnicity, access limitations prevent them from escaping discrimination. For example, as discussed above, the online mortgage application process has shown promising results in limiting discrimination in the loan approval process. Online mortgage applications are most beneficial to those groups that would be negatively stereotyped and rejected based on their appearance. However, if these same groups of people have disproportionately less opportunity to use computers, they will be less likely to feel comfortable enough to carry out a major transaction via the Internet, even though it could create an important opportunity (buying a home), and save them money and the distress of being rejected. Internet access gaps also do not solely reflect Internet and computer possession, but the type and quality of the computer as well. Higher income families often obtain the best technology, whereas lower income families may only be able to afford slower and outdated computers, software, and ISPs. Though they may technically have “access,” they still lag behind in the ever-changing information age.

To close the digital divide, policy makers may consider a number of alternatives for promoting access to the Internet for lower-income individuals and families. In the United States, the ongoing moratorium on Internet sales taxes is intended to spur commerce, but it may also have the effect of making Internet use more affordable and appealing to those with lower financial means. Furthermore, efforts by the government to subsidize and promote access to high-speed Internet technologies (e.g., broadband), and thereby reduce costs of such resources, could have a redistributive effect. More radically, governments and non-governmental organizations could consider sponsorship (e.g., direct subsidies, tax credits, etc.) of Internet access and computer hardware for underrepresented groups.

*Discrimination research and the Internet.* Precisely because of its ease of access and anonymity features, the Internet provides a valuable tool with which to conduct research on discrimination. Traditional methods of studying discrimination on the Internet involve simply asking Internet users about their experiences. In one such survey by Winter and Huff (1996), 31% of women recounted events where they had experienced harassment in some way while using the Internet, while 19% reported specifically being subjected to sexual harassment. Although Winter and Huff provide no comparison rates for non-Internet experiences, these rates indicate that cyberspace is, at the very least, not a safe haven from harassment for women. As mentioned previously, online harassment can lead to discrimination and avoidance of the medium in the future and can even be viewed as more harassing than verbal comments (Biber et al., 2002; Winter & Huff, 1996).

In addition to facilitating discrimination survey dissemination, the Internet affords opportunities to study discriminatory *behavior* unobtrusively. In one such field experiment, Shohat and Musch (2003) studied the effect of a seller's implied ethnicity in an online auction.

Two sellers' identities were created, one of German background (michael.ottersbach) and one of Turkish ethnicity (mehmet.orgum). The two sellers had identical profiles and sold identical DVDs on the German eBay auction site. The results showed that the ethnic background of the seller did not significantly alter final sale prices or the total number of bidders on the DVDs, lending support to the notion of equality on the Internet. However, differences were evident in the time the winning bids were received. The German seller obtained his highest and winning offer sooner than did the Turkish seller. The authors hypothesized that the delay may be due to lack of initial trust between the seller and the buyer in the auction since the Turkish stereotype contains "untrustworthy" as a central characteristic. These mixed results partially illuminate the discrimination occurring on the Internet, and further, how it affects real life. Stronger discrimination may have resulted if financial risk was increased and trust became a more central concern, or the stereotype manipulation was made more robustly. Still, online transactions such as auctions hold a valuable key in unlocking and fully understanding the extent and variety of discrimination transpiring on and off the Internet.

### *Conclusion*

The effects of the Internet on stereotyping, prejudice, and discrimination, as have been described, are admittedly varied. On the surface, the Internet's ability to hide a user's identity can disinhibit the expression of prejudice, but also holds promise to lessen discrimination's negative influences. With the current predominance of text-based communication, power is bestowed upon the Internet user to decide how much of his or her identity to reveal. The Internet potentially promotes the transmission of bigotry, but is also an effective conduit for the promotion of tolerance and offers considerable potential as a venue for studying, and therefore

building greater understanding of prejudice. It, furthermore, seems clear that the Internet serves to lessen discrimination prevalent in decisions traditionally based in whole or part on personal judgment, such as loan applications. Moving such historically discrimination-riddled practices online may represent a significant step toward true equality of opportunity.

Despite the promise of the Internet, as noted above, caution must still be maintained. The Internet and computers are not as universally benign as may be hoped. Biber et al. (2002) showed discrimination experienced online can be viewed as more harmful than in person. Discrimination can be so pervasive that entirely new networks are created as a means of escape (Winter & Huff, 1996). The anonymity of users online may even encourage discriminatory e-mails or chatroom posts (McKenna & Bargh, 2000). The “digital divide” is also troublesome, as lack of access for members of historically disadvantaged groups can prevent them from enjoying the Internet’s positive effects. Nevertheless, the potential to ameliorate bias is impressive. By carefully examining the Internet’s promises and pitfalls, society has an opportunity to reduce prejudice, discrimination, and their consequent inequities.

Researchers interested in prejudice and discrimination on the Internet would be well served to consider issues that have great import, but as yet have not been directly investigated. Intergroup contact is an obvious place to start, and Amichai-Hamburger (2004) has identified facets of the Internet (e.g., accessibility, anonymity, and control) that could serve to overcome obstacles associated with achieving significant, positive intergroup contact (e.g., anxiety and low practicality). The potential for the Internet to facilitate prejudice reduction through intergroup contact is clear and is, at this point, an empirical question. Accordingly, the manner and effects of Internet-based intergroup contact should be tested experimentally. This would, of course, most prudently involve the manipulation of the awareness of the group membership (e.g., race)

of interaction partners. Such contact research could also vary the presence of factors deemed important for prejudice reduction (equal status, interdependence, authority sanction) to determine whether or not they are necessary, and test for the generality and longevity of such effects.

Another central question that warrants investigation has to do with the Internet's potential to have paradoxical effects on prejudice and discrimination. We hypothesize that prejudice will be more likely to be expressed online than face-to-face, while discrimination will be less likely. However, this has, for the most part (except see Shohat & Musch, 2003) not been directly tested. Such research should employ direct indicators of prejudice and discrimination, such as bigoted statements and allocation of resources. As with research on intergroup contact, these investigations should vary the transparency of group membership to assess its role in the manifestation of bias in Internet-based human interaction.

An increasing proportion of human life, even social life, transpires in cyberspace. A greater understanding of social psychology's most important constructs and society's most important problems, as they play out online, will doubtless benefit humankind.

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*Footnotes*

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<sup>1</sup> Or, what some have begun calling, “unconsciousness-raising.”