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A Close Encounter with Personal Bias: Pedagogical Implications for Teacher Education

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This qualitative study explored the reactions of practicing teachers when presented with an "encounter" experience that challenged them to examine their own bias in an on-line graduate course. In this case, the encounter experience was completing two Implicit Association Tests—one on race and one on skin tone. The researchers examined the discussion board entries of 302 early childhood and elementary teachers enrolled in the course and found that teacher reactions generally typified one of five categories: (a) disregard for the results, (b) disbelief in the results, (c) acceptance of the results, (d) discomfort with the results, and, finally, (e) distress with the results. The results are discussed in the context of helping teachers become aware of the potential impact of bias on the teaching and learning process. Pedagogical strategies to mediate the typology of reactions to the suggestion of personal bias are highlighted.

Keywords: *Implicit Association Test, bias; race, teacher education*

Between 1988 and 2008, the number of White children in K-12 public schools in the United States dropped from 68.3 % to 55.5 % (Aud, Fox & KewalRamani, 2010). Currently, in the 67 large urban districts that comprise the Council of Great City Schools, only 20% of students are White (Council of Great City Schools, 2013). As the public school population becomes more diverse racially, ethnically, and linguistically, we continue to prepare a majority of White, female teachers for our nation's schools. Never before have there been so many children entering schools populated by teachers who reflect neither their race, language, nor the communities from which they come (NCES, 2007). To compound the challenge, there is research to suggest that high quality teachers actively *avoid* schools with a large percentage of minority students (Jackson, 2009).

AN ACHIEVEMENT GAP

These shifting demographics directly inform unequal patterns of achievement among the nation's children. There continues to be an achievement gap of tremendous proportion for culturally and linguistically diverse children (Hemphill & Vanneman, 2010; Vanneman et al., 2009). In 2009, while 39% of White students scored at or above the proficient level on the reading portion of the National Assessment of Education Progress (NAEP), scores for Black and Hispanic eighth graders were 13% and 16% respectively. Similarly, Black and Hispanic students were outpaced on the math portion of the NAEP, with proficient or above ratings at 12% and 17%, compared to 43% of White eighth graders (Council of Great City Schools, 2013). Explanations for the achievement gap have been posited over the last five decades. While some clearly cling to a cultural deficit perspective (Trueba, 1988; Valencia, 1997), others blame structural and institutional factors resulting in inequitable access to the teachers and schools most likely to impact educational success (Roscigno, Tomaskovic-Devey, & Crowley, 2006). Finally, cultural and environmental factors, including stereotype threat (Steele & Aronson, 1995), a cultural discontinuity between home and school (Graybill, 1997) and the low expectations of teachers (McKown & Weinstein, 2008) have further fueled the dialogue. While the root cause of these discrepancies in learning continues to be debated, it remains apparent that teacher education programs have a responsibility to equip candidates with the

requisite knowledge, skills, and dispositions through which to most effectively engage *all* students in the process of equitable learning.

TEACHER STEREOTYPES AND EXPECTATIONS

Stereotypical views and negative attitudes evidenced by teachers about students of color also raise considerable concern. Hinojosa and Moras (2009) compared teacher racial attitudes with those of similarly educated non-teachers, with discouraging results. This study consistently found that teachers out-scored their non-teacher counterparts on measures of bias, both in theory and in practice. Teachers in this study were more likely to favor laws against racial intermarriage, were less likely to live in neighborhoods where at least one-half of the population was African American, and were more likely to object to sending their child to a school that was mostly populated by African American students. Additional studies have documented teacher stereotypes relative to diverse populations of children and families. Pigott and Cowen (2000) found that both White and African American teachers rated African American students lower on competency, school adjustment, and future educational prognoses.

These stereotypes can translate to lower expectations (Elhoweris et al., 2005; Terrill & Mark, 2000), which can impact the motivation of the learner (Baksh & Martin, 1984). Teacher expectations have been shown to correlate with disparity in practice (Brophy, 1983; McKown & Weinstein, 2008), creating an achievement differential (Goddard, Hoy, & Hoy, 2000), and thereby jeopardizing the notion of equity in education. The cultural discontinuity between a majority White, female, teaching workforce (Cochran-Smith & Zeichner, 2005) and a burgeoning population of students of color is a factor of increasing significance for teacher preparation.

IMPLICIT BIAS

Inequity in expectations for student learning based on race and culture is well-documented (Tenenbaum & Ruck, 2007) and may, in some unfortunate instances, take the form of direct, willful disadvantage. More frequently, however, is a more subtle, subconscious treatment differential. While some prejudice is explicit, even more complicated are "implicit" biases outside an individual's awareness. While explicit prejudice has been correlated with deliberate acts of discrimination, these implicit biases have been found to be predictive of spontaneous, nonverbal behaviors (Dovidio, Kawakami, & Gaertner, 2002; McConnell & Leibold, 2001). Additional studies have documented how implicit bias can contribute to inequitable practice (Green et al., 2007). While some research shows a weak relationship between implicit bias and behavior (Karpinski & Hilton, 2001), other studies have demonstrated strong predictive validity (Greenwald & Farnham, 2000; Rudman & Glick, 2001). Of particular note are studies indicating a positive correlation between implicit bias and judgment (von Hippel, Sekaquaptewa, & Vargas, 1997) and between implicit bias and social interaction (Sekaquaptewa et al., 2003). This research suggests that whether a teacher is aware of his or her own bias, or it is embedded subconsciously within cognitive or affective schema, there may well be implications for children's education. Self-awareness of implicit bias, therefore, surfaces as critically important for teachers, in order to rectify the potential for inequitable interaction and practice.

This body of research underscores the relevance of the present study, which sought to assist practicing teachers in the identification of implicit biases, as well as to typify reactions to the suggestion of such. Through the examination of responses to personal bias on the part of teachers, the investigators hoped to identify strategies through which to mediate such bias, leading educators to the development of a more just and equitable learning environment for all children.

THEORETICAL FRAMEWORK

Discussed by many scholars as an "inside-out" phenomenon, the process of multicultural development has been examined over the past 30 years in terms of personal stages or phases experienced by individuals (Banks, 1988; Ford & Dillard, 1996; Gay, 1985; Helms, 1990; Myers et al., 1991). Additional work by Gay (2003) highlighted personal narratives reflecting the significance of events and interactions spurring change in cognitive and affective schema relative to multicultural transformation.

Building on the historical work referenced earlier, the current study situates multicultural development within a Transtheoretical Model of Change (Prochaska et al. 2007; Velicer & Prochaska, 2008), characterized by conscious-raising processes (experiential) leading eventually toward self-liberation (behavioral). Originally conceived as a model oriented toward transformation relative to positive health outcomes, Boegel (2009) has adapted the model to the process of becoming multicultural. According to Boegel, ". . . change is not a continuum but it is a process of moving, over time, through stages of relative unwillingness and non-readiness to change to willingness and readiness to change (p. 3)." The transtheoretical model, as interpreted by Boegel, invites targeted responses, based on individuals' orientation to issues of multiculturalism. While individuals in one stage may require experiential and didactic forms of intervention, those in another stage might require behavioral suggestion in order to change.

The purpose of this qualitative study was to explore the reactions of early childhood and elementary teachers enrolled in an online graduate course, when presented with a conscious-raising or "encounter" (Gay, 1985) experience that challenged them to examine their own bias. This study was an attempt to categorize those reactions in a way that would highlight for teacher educators the types of reactions that might result from providing practicing and preservice teachers with such experiences. This, in turn, could help facilitate the responses of teacher educators in mediating identified bias, with the goal, ultimately, of encouraging action toward social justice. The research question, "What are the identifiable patterns of reactions to the suggestion of personal bias?" have guided the study with informing methodology, data collection, analysis, and interpretation. Results of the study will be discussed in the context of strategies that can be used to help teachers become aware of the impact of bias on the teaching and learning process, as well as to take action to ensure an equitable education for all students.

METHODOLOGY

In order to address the research question, written reactions to a conscious raising/encounter experience were examined. In this case, the experience included completing two Implicit Association Tests—one on race and one on skin tone. The Implicit Association Tests (IATs) are part of Project Implicit (IAT Corporation, 2006), and were developed to explore the unconscious roots of thinking and feeling.

Context of the Study

This study involved 302 early childhood and elementary teachers enrolled in an online graduate diversity course at a mid-sized midwestern university. The teachers were enrolled in one of 16 class sections taught over a period of three years. The majority of the teachers were female (293), with 278 identifying themselves as White, eight identifying themselves as African American, two as Hispanic/Latino, and five as multiracial.

Because the course was offered online, the teachers enrolled were from all geographical regions of the state, with approximately five percent living outside the state of where the university is located. The schools in which they taught ranged from rural to suburban to urban, from very small school districts to the largest in the state, and from private as well as public schools. The students they taught came from families living in poverty, as well as from some of the wealthiest communities in the state. Seventy-six percent of teachers taught in elementary

grades, 20% in early childhood programs (e.g., Head Start, childcare centers, public preschool), and 4% aught in middle or high schools.

The two researchers who conducted this study were also the instructors for all sections of the online course. Both researchers are European American females, and are associate professors in the university's college of education. Additionally, both have more than a decade of experience teaching both undergraduate and graduate courses incorporating issues of education for social justice. Prior to the university's entrée into the realm of online course delivery, both researchers taught the course in face-to-face mode. When approached with the challenge of moving the university's master's program into the online arena, the researchers collaboratively developed interactive course modules through which to deliver course content. Course modules investigate social, economic, cultural, and linguistic diversity, with an emphasis on education for social justice. Specifically, course modules encourage the exploration of education that is anti-racist, multicultural, democratic, and culturally responsive.

When developing the course content for online delivery, of particular interest to the researchers was the extent to which participant articulation of attitudes and beliefs in the virtual environment would differ from the real-world environment, where divulging personal opinions relative to race, privilege, and power is challenging due to social conventions that have silenced this dialogue (Delpit, 1988). A potential benefit of the online environment is supported by Suler (2004), who coined the term "online disinhibition effect" to describe the loosening of social restrictions that would otherwise be present in normal, face-to-face interactions. According to Suler, characteristics of the online experience, including dissociative anonymity, invisibility, and asynchronicity can lower the inhibitions that individuals experience in real-world, real-time environments.

Implicit Association Test

Developed in 1998 by Greenwald and colleagues, Implicit Association Tests (IATs) are measures that are designed to detect the strength of a person's automatic association between mental representations of objects in memory. The tests present takers with images and words that they are directed to rapidly match according to specifications provided (i.e., specific images and the words "good" and "bad"). The tests measure the ease with which associations are recorded, with faster responses relating to stronger associations than more difficult (slower) pairings. After completing each test, an assessment of "preference," from strong to moderate, to slight preference or no preference for certain characteristics, is provided.

The IATs, used frequently in social psychology research, have received a great deal of attention in relation to their validity in measuring unconscious associations. Over 50 papers have examined various aspects of validity, including predictive validity, construct validity, internal validity, and statistical conclusion validity (Greenwald, 2010). Many studies have substantiated the extent to which the IATs uncover hidden bias (Arkes & Tetlock, 2004; Lane et al., 2007; Nosek, Greenwald, & Banaji, 2005; Weyant, 2005). The extent to which implicit bias is related to explicit attitudes and behavior is of additional interest (Banaji, Nosek, & Greenwald, 2004). There is evidence to suggest that discriminatory behavior can be more strongly predicted implicitly rather than with explicit measures (Poehlman et al., 2004).

Course Description

The online course was divided into eight, two-week modules. While taught by both researchers, identical content and assignments were implemented in all course sections. The second module, offered during weeks three and four of the course, focused on race and ethnicity. As part of this module, teachers were instructed to take two IATs—one on race and one on skin tone. In these particular tests, individuals are presented with two lists of words related to the categories "good and bad" (e.g., love, joy, peace; agony, evil, hurt). They were then presented with images of faces depicting African American/European American or light-skinned/dark-skinned people. Test takers are instructed to rapidly match a particular race or

skin tone with words that relate to the categories of "good or bad" (e.g., the test will direct takers to match images of dark-skinned people with words from the "good" list). Throughout the test, the images and words remain the same, but takers are instructed to invert the matches (e.g. the test will direct takers to now match images of dark-skinned people with words from the "bad" list). Test takers use the "i" and the "e" keys on a standard keyboard to place the image they view in the "correct" category. If the test taker matches the image and word "correctly", a green checkmark appears on the screen; if the match is "incorrect", a red "X" is displayed.

These IATs were selected for use in the online course because they provide individuals with a personal means by which to examine attitudes in a safe and confidential manner. Once the IATs were completed, teachers were instructed to post written reactions to their results on the online discussion board for the class. Written reactions were gathered from all teachers over the course of three years. These reactions provided rich data to examine typical reactions and to create a typology of reactions to identified bias.

Data Analysis

Using a constant comparative method of analysis (Glaser & Strauss, 1967), each of the two investigators read all reactions (initial reactions as well as responses to classmates) and independently coded them. After the preliminary reading, investigators compared codes and identified similarities and differences in coding. From this discussion, a set of core categories and sub-categories of reactions was created, noting the diversity of dimensions within each category. Further examination of categories and sub-categories resulted in determination of five general categories representing the most common reactions. Upon determination of a system through which to categorize reactions, data were again independently coded by each investigator and compared for agreement. There was a 96% level of agreement on the categorization of reactions between independent raters.

RESULTS

While it was not the purpose of this study to track the teachers' results on the IATs, nearly all of the teachers (96%) reported receiving results that indicated a preference for European American and light skin. This aligns with the data that have been collected by Project Implicit and which is available on their website (https://implicit.harvard.edu/implicit/demo/background/faqs.html#faq18). It was the reactions to these results that were the focus of this study, and those reactions generally typified one of five categories of disregard, disbelief, acceptance, discomfort, and distress (Table 1).

The most common reactions—more than one-half—indicated either a disregard for the results (33%) or a disbelief (26%) in the results. Nearly one quarter of the teachers' reactions were categorized as acceptance of the results (22%). Significantly fewer participants showed uneasiness in their examination of personal bias, with 9% indicating discomfort, and 10% reporting distress. Each of these categories will be presented and discussed, along with examples of reactions from the teachers.

Disregard

Many of the respondents indicated that participation in the IAT assessments was an exercise in frustration. Due to the required rapidity of their responses and resulting errors, the process caused many individuals to question what the instrument was actually measuring. In the present study, it was common for respondents to disregard their results, whatever they were, rationalizing that the test was merely a measure of their reflexes, eye–hand coordination, or left-brain/right-brain orientation. Statements such as the following were very common:

> "I don't think this was an accurate test—it was confusing to me what I was supposed to do and I had to go too fast."

> "The results of the IAT didn't seem accurate to me. It stated that I had a strong preference for white people, but I don't agree with this. I almost felt like it was a trick."

Reactions that were put into this category were ones that only commented on the validity of the test itself; they did not address the issue of conscious beliefs or practices.

Table 1

Typology of Reactions and Definitions

Category	Characterization	% Response
Disregard	Perception of assessment and process as flawed, thereby invalidating results; dismissal	33%
Disbelief	Incompatibility of results with participant worldview, leading to disagreement with preference rating; denial; defensiveness	26%
Acceptance	Affirmation and validation of results based on prior experience and expectation; little or no reflection	22%
Discomfort	Unease with results leading to reflection and questioning; disequilibrium; uncertainty	9%
Distress	Elevated concern, spurring reflection on personal responsibility; shame, guilt, desire for action	10%

Disbelief

Another common reaction encountered in the present study was the disbelief that individuals experienced when they received results that were incompatible with how they perceived their own values, beliefs, and practices. When subjects received results on the race and skin tone IATs indicating a preference for "European American" or "light skinned," they often expressed disbelief in the accuracy of the results because they knew that this was not how they "really felt" about things.

> "I don't think my results represent my beliefs or practices. I grew up in a diverse neighborhood and I have a lot of friends who are African American."

In a couple of cases, African American teachers expressed disbelief in the results, when their results showed a preference for European American or light-skinned.

> "I don't think the test is accurate. I am African American, yet my results showed a strong preference for European American."

In other cases, the teachers would express that the results must be inaccurate because they treated all of their students equally and they considered themselves to be "color blind."

> I was a bit surprised with the results . . . I would have said that I am "colorblind." The results stated that I was more "comfortable" with "light skin" people and I am not sure that I would have said that about myself. I feel comfortable in my own "skin" and have many friends of various ethnic and diverse backgrounds.

Acceptance

Another common reaction from teachers was an acceptance of the results and an accompanying explanation of why they felt it made sense that they had such an unconscious preference. In most cases, teachers indicated that they were not surprised by the results, having had relatively

little exposure to diversity as children, and currently teaching in a homogenous, majority setting. These subjects rationalized their preference by noting those with whom they commonly affiliate. It made sense to them that their preference would be for those who are similar to them and whom they saw and interacted with daily.

> "It showed I have a moderate preference for European-Americans compared to African Americans. This did not surprise me because my exposure to other groups is limited."

In most of these instances, there was little or no reflection on the suggestion of bias; the respondents explained that it was just the way things were.

> "These results are understandable because I am White and have only been around White people."

A few teachers, however, did maintain that, despite the results and their acceptance of them, they tried not to allow unconscious bias affect their actions:

> At first I didn't really agree with the results . . . . After thinking about it some more, maybe the test results are more accurate than I think. I started thinking about my upbringing and the people I was around and the people I surround myself with now . . . . So I guess it may be true that I do have a moderate preference for White people. Although this may be true, I know I am still very open minded and I try not to judge anyone until I get to know them.

A much less common form of acceptance occurred when individuals disclosed that the results were related to a conscious bias. This differed from other *acceptance* reactions, where teachers acknowledged that they might, in fact, have hidden bias. This reaction was characterized by an open admission of prejudice. It is interesting that this type of reaction came solely from minority teachers, an indication, perhaps, of a consciousness about and experience with race not evident among their peers. These teachers articulated recognition of the historical and contemporary roots of their prejudice, and expressed anger toward the perpetuators of racism. They recognized a beginning awareness of the need to combat these attitudes and beliefs, with which they had grown up.

> The race test indicated that I have a 'strong automatic preference for African American over European American.' I am afraid to say that, as a teacher and an individual that considers himself neutral, this may be true. When I thoroughly assess my moods, feelings, and attitudes towards people of other races, this is probably accurate. I really think this is due in large part to my experiences as a Black man . . . one that is informed and educated about my existence, past, present, and future implications . . . . Nonetheless, I think that in order to remain objective and ensure fairness, it may be necessary for me to address this issue. . . .

Lack of European American teacher representation disclosing conscious bias may be due to an awareness that it is not socially acceptable to admit prejudice. This is consistent with research that demonstrates a general decline in explicitly stated racial prejudice since the civil rights movement (Van Dijk, 1984).

Discomfort

Analysis of written reflections indicated another reaction as one of discomfort. Individuals accepted the accuracy of the results, but were upset by the revelation of their own hidden bias. Most teachers described themselves as "good" and "fair" people, and expressed confusion and discomfort with the idea that they might actually have hidden bias.

> "My results showed a strong preference for European American. I think this is probably accurate, but I don't like what it shows."
> "The Implicit Association Test on race was disturbing. It really made me question myself: do I really have a biased opinion towards African Americans? I never considered myself to be prejudiced."

Teachers whose comments fell into the *discomfort* category were ready to consider that they might harbor biases of which they were unaware, but emphasized that these were not their "true" feelings:

> Both of my IAT results were not flattering. According to the Implicit Association Test, I show preference toward people with light skin over darker skin and European Americans over African Americans. I am not sure how much merit these tests have in determining bias, though the results made me question whether I truly have these biased reactions to people based on their appearance . . . I question whether I make assumptions in my mind about people, even though I don't feel I harbor ill feelings in my heart. I don't feel that I am racist or quick to pass judgment on people based on their skin color or race, but these results revealed a bias I was not aware of in myself.

Distress

A level of elevated concern led a few participants to further interpret their results, questioning the meaning and implications of a diagnosis of personal bias. Only a few teachers made connections between hidden bias and what that might mean in terms of their own behavior and attitudes. Some questioned the meaning of the results indicating bias:

> "My results showed a strong preference for European American. Does this mean I'm racist?"

Others in this group showed anger, sadness, and guilt, and frequently commented about what they could do, now that they knew they did have unconscious bias.

> When this was finished, I felt like yelling at the computer that this wasn't true. When I quit feeling like yelling, I felt very ashamed . . . having preferences is maybe something that I do, but don't consciously realize. I have decided to make more of an effort to have an open mind and think about ways I can eliminate this preference.

While there were few reactions in this category, it seemed qualitatively different from the *discomfort* category, in that those reactions indicated a concern about how unconscious bias might impact behavior or a desire to address the bias in some way.

Teacher reactions to results on the IAT ranged from disregarding the test results because of a belief that the instrument itself was not an accurate measure of bias, to distress at the hint of hidden bias. This range of reactions can be situated within a body of research on multicultural development, and has important implications for teacher education initiatives working to advance education for social justice.

DISCUSSION

Results of the current study are compatible with previous studies examining individual reaction to perceived bias. The categories of *disregard* and *disbelief* are consistent with prior research on resistance to notions of power and privilege in teacher education (Gillespie, Ashbaugh, & DeFiore, 2002; Howard, 1999; Solomona et al., 2005). Kumashiro (2000) argued that individuals resist accepting anything that challenges the notion of themselves as "good" people, and actively avoid admission of complicity with racism or other forms of oppression. Particularly true in the field of education, where many educators pride themselves as being "color blind," the suggestion of personal contribution to inequity is frequently unfathomable.

Acceptance of personal bias has been discussed by Levine-Rasky (2000) who suggested that individuals may simply admit their privilege as a "redemptive function" (p. 276). The admission of inherited advantage releases the individual from the guilt associated with perpetuation of injustice. Such declaration of privilege as a known function of the society in which one lives also alleviates the individual from responsibility for change. Not only were individuals admitting privilege included in this category: The disclosure of conscious bias on the part of African American students, also included, is compatible with previous studies

indicating a frequent mistrust of members of the dominant culture, particularly among African American populations (Phelps, Taylor, & Gerard, 2001; Thompson et al.,1990).

Discomfort resulting from even the possibility of personal bias has been thoroughly explored (Arminio, 2001; Helms, 1990; Marx & Pennington, 2003; McIntyre, 1997; Tatum, 1994). Becoming cognizant of the privileged positionality of Whiteness can be humbling when individuals have viewed their membership in the dominant race with neutrality. Anxiety frequently results when new information is incompatible with previous understanding, resulting in cognitive dissonance. Having perceived oneself as bias neutral, and then entertaining the contrary can be disconcerting. The disequilibrium resulting from holding conflicting ideas simultaneously presents itself as unsettling, leading to a desire for resolution. There is, however, literature to suggest that discomfort or guilt may not engender behaviors that increase equity (Iyer, Leach, & Crosby, 2003). The self-focus of guilt tends to lead individuals toward actions that result in restitution, whereas empathy or sympathy with the victim of bias has been found to lead toward efforts that equalize power structures in an effort to manifest social justice.

Distress represents yet another level of reaction, which typically is characterized by a more dramatic reaction including sadness, anger, and even outrage. This turmoil generally unfolds as previous conceptions of racism are replaced with new insights, leading to examination of systemic, structural, and personal contribution to inequity (Derman-Sparks & Phillips, 1997; Tatum, 1992). The guilt of considering oneself as prejudiced or racist equates for many with historical atrocities with which they would rather not affiliate. From this distress, a beginning acknowledgment of inaction, previously viewed as benign, can unfold as unacceptable, causing individuals to consider their role, yet undefined, in affecting change.

The typology of reactions presented in this study is somewhat compatible with Bennett's (1993) Developmental Model of Intercultural Sensitivity (DMIS), with ethnocentric stages of denial, defense, and minimization aligning with the *disregard, disbelief, and acceptance* reactions these authors present. These stages significantly limit individuals' potential to recognize and incorporate alternative perspectives into their realities, presenting barriers to incorporating new schema that may lead to changes in behavior. Bennett's ethnorelative stages of acceptance, adaptation, and integration more closely ally with the discomfort and distress reaction, where individuals more fully accept, explore, and work toward defining their role in affecting change.

The identified range of reactions to the suggestion of personal bias discussed provides distinct, yet varied, opportunities to advance individuals' understandings, ownership, and initiation of action to address inequity and to further socially just personal and professional practices. Next, the pedagogical implications of reactions to the encounter experience are thoroughly addressed, along with resources through which to mediate particular reactions.

IMPLICATIONS FOR TEACHER EDUCATION

When effectively negotiated, encounter experiences such as the IAT have been found to ignite a process through which one considers the former self. While such encounters provide a catalyst for engagement, the process of multicultural growth involves much more than simple exposure. Experience, without careful guidance in the process of interpreting and reflecting on the interactions may, in fact, have a negative effect on attitudes. Support for processing the encounter has been shown to have significant benefits in terms of multicultural growth. Without ample opportunities to process new information and emotions, stereotypes may actually be reinforced and bias perpetuated (Haberman, 1991).

Based on the results of this study, the authors caution others in using the IAT as a stand-alone experience. The issue of bias is emotionally charged, and individuals frequently misinterpret the results of their IAT assessment. It is altogether common for teachers to feel that their "moderate preference" for light skin indicates a racist ideology, which they either quickly disregard, or which shocks them to the point of despair. Facilitating individuals'

understanding of what the test is actually measuring, as well as from where hidden bias might potentially emanate, can make the results more palatable, and can encourage the personal reflection through which new understandings emerge.

TARGETED RESPONSES

In the work with teachers over the years, we have found that varying reactions to encounters call for targeted responses. This is supported by the Transtheoretical Model of Change (Prochaska et al., 2007), which recommends the development of interventions appropriate for people regardless of their willingness or readiness for change. An overview of these targeted responses is briefly described. A more thorough explanation of targeted responses, including specific examples of resources, can be found in the article, "I Don't Think I'm Biased" (Clark & Zygmunt-Fillwalk, 2010), published in *Teaching Tolerance*.

Although *disregard* can be perceived as a closed door, the IAT encounter has nonetheless potentially spurred some level of thinking about issues that can be negotiated to further the conversation. An attempt to dialogue about the meaning of individuals' results, when they feel that the test itself was invalid, is premature and can be quite ineffective. When encountered by this reaction, we frequently provide respondents with information on the instrument, how it was constructed, what it is measuring, and how the results are determined. Only after an acceptance of the validity of the instrument, can dialogue begin on the meaning of the results. We have found that allowing individuals more time to explore information on the IAT can provide a cooling off period, after which they are more inclined to consider the accuracy of the assessment, then beginning a personal reflection on their results.

Individuals experiencing *disbelief* are inclined to dismiss the results because they know that this is not how they "really feel" about things. It is in this situation that teachers frequently tell us how they treat all students equally—that they consider themselves "color blind." They are typically eager to point out the inaccuracy of the results in light of their own experience, which again provides a roadblock to any productive dialogue and reflection. In this situation, it is critical to clarify that the IAT is measuring "associations" between characteristics, which can illuminate unconscious bias, rather than measuring overt beliefs. Once this understanding is in place, a discussion on bias can begin. The conversation can be furthered by helping teachers to understand how unconscious bias develops. We provide examples of bias in the media, which encourage individuals to consider the subtle influences that may jeopardize the bias-free mindset they previously espoused. We also encourage teachers to consider how they were socialized as children. Many are quick to report that individuals in their family may have had racist attitudes, which they actively reject, but which may have played a part in the associations that are part of their subconscious.

Teachers whose reactions fall in the *acceptance* category may either see their preferences as a "natural" result of having relatively little exposure to diversity as a child and working in a homogenous, majority setting or identify their results as a reflection of conscious bias. Only African American teachers stated that their results reflected a conscious bias, based on history and their own experiences. Each of these reactions, despite falling in the same category, requires a different response. Individuals, who see their results as a natural outcome of the way society is, sometimes expressed regret, but are not surprised, at their results. It is important to provide intentional strategies to challenge their comfort with a preference score that they do not necessarily find disturbing. Resources that highlight institutional bias can help teachers reflect on the outcome of the natural biases they harbor. Alternatively, it is critical to actively support African American teachers who have made a disclosure of personal bias. The consequences of slavery and colonialism are decidedly visible and individuals' experiences with racism are real and must be validated. As individuals confront the realities of racism, their awareness is critical in making conscious decisions about themselves, others, and their role in affecting change.

Individuals whose reactions fall in the *discomfort* and *distress* categories frequently experience a "deconstruction" (Ford & Dillard, 1996) of previously held beliefs in response to a new reality. A period of disequilibrium then follows, as individuals wrestle with new content in light of past experiences. Also referred to as "disintegration" (Helms, 1990), this period of disorientation demands individual response. Students in the deconstruction or disintegration stage often evidence characteristic confusion as they struggle to regain their bearings. In this case, we usually reassure teachers that the first step to addressing their biases is to acknowledge them. We note that everyone has hidden biases, but that these are most dangerous when they are unrecognized. Following the deconstruction phase, a next step on the path of multicultural competence requires building of new schema to support information acquired during the encounter. As individuals work to resolve and remold preconceived personal value and belief systems, they move toward "reintegration" (Helms, 1990) or "identity clarification" (Banks, 1988). At this juncture, teachers frequently begin to contemplate their inaction, previously viewed as benign, as now unacceptable. They begin to reconsider past practice in light of new understanding, and are motivated to change.

As individuals reform their previous conceptions and begin to develop a new lens through which to interpret their experiences, they frequently take responsibility—searching for ways to effect change. We encourage teachers to explore ways in which they can take action to combat stereotyping and discrimination. We suggest examining materials in their classrooms, addressing and eliminating racist language, and examining school policies and practices that may serve as barriers to equity. We encourage teachers to incorporate diversity into their classrooms in authentic ways, even if there is little racial diversity in the school.

CONCLUSION

Mediating a typology of potential reactions to personal bias, through the provision of experiences through which to deconstruct, rebuild, and move toward action, is a critical role of the teacher educator. This experience facilitating this exercise has shown that individuals demonstrate a range of reactions to the results they receive. From complete dismissal and denial, to devastation at the thought of possessing hidden bias, the tests never fail to elicit lively dialogue, furthering teachers' deconstruction of race as a social construct, and moving them to consider their personal role in advancing equitable education for all students. The IAT is a tool to begin to explore the complex interplay of race, power, and privilege in 21st century America, and subsequent implications for teaching and learning. Social justice activist Dietrich Bonhoeffer (1997) articulated, "Action springs not from thought, but from a readiness for responsibility" (p. 103). Ultimately, by challenging teachers to consider their personal role in addressing such issues, it is hoped to bridge thought into action, encouraging the socially just and culturally relevant classrooms critical to student success. Clearly, it is not known whether this encounter experience and subsequent dialogue result in teaching for social justice, without observing teachers at work. Additional studies examining teacher beliefs, particularly about racism and its impact, with direct classroom observations, would greatly enhance the understanding of how to effect positive change in teaching for social justice.

Encounter experiences, such as the IAT, can ignite a process that advances individuals from awareness to action. A central role of the work as teacher educators is to creatively structure these experiences, to provide varied opportunities for reflection and interpretation, and to grant focus and support to teachers as they engage in the exploration of education for social justice (Zygmunt-Fillwalk & Clark, 2007). This work is not achieved without challenge. The complexity of this type of teacher preparation is addressed by O'Donnell (1998), who stated,

> Some students will be angry (at me for bringing the subject up); some students will be upset, will feel guilty, and will be defensive. There are also students who will be angry (at a system and society that perpetuates racism); some students who will feel affirmed, who will feed renewed, and who will

> be ready to act. It is precisely this range of responses that creates and enables the possibility for transformation. It's the divergence of perspectives and lived experiences encountered within a dialogical framework that permits students the possibility to question themselves and their society. (p. 59)

In order to support students' processes, a consciousness of our own development as teacher educators is imperative. As students are asked to examine from where they come and challenge them with new ideology and experience, we must also acknowledge ourselves as cultural beings continuously encountering and interpreting ideas and interactions. This process of continuous mindfulness and self-examination seats us alongside students as co-learners, who deconstruct and rebuild and with each new discourse provides opportunities for illumination and possibilities for action.

It is important to remind ourselves, and the teachers with whom we work, that this is not about reaching a destination as much as it is a cyclical process that emerges as we encounter, reflect, de-construct, and re-create worldviews. With novel experiences, we can begin the process anew. According to Cahill and Adams (1998), "No one ever arrives; they just bring more of themselves through each time" (p. 232). As we open our heads and hearts to new understandings through the invitation of persistent experience and inquiry, we embrace the journey.

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