The Effects of Social Identities on Student Learning Outcome Attainment
Shalyse Iseminger, Kris Acheson-Clair, Colleen Kelly, and Pamala Morris
Purdue University
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Abstract
Communicating across Cultures (CaC) is an undergraduate course that exists to achieve the goal of equipping students to effectively work in multicultural environments. Students’ worldviews, beliefs, and values shape their experience with the course materials and potentially impact the degree to which they achieve the intended learning outcomes. The objective of this study was to determine which aspects of students’ identities are most salient to their experiences in CaC. The Beliefs, Events, and Values Inventory (BEVI), a psychometric instrument that illuminates how the self is structured, was administered as a pre-/post-test at the beginning and end of the Fall 2017 and Spring 2018 semesters. T1 to T2 changes in scores and between group differences on various BEVI scales emerged in interaction with several demographic variables. Based on these findings, we suggest some best practices for approaching the different layers of culture present in similar courses.

INTRODUCTION
As the world becomes increasingly globalized, intercultural competence (IC) is an important skill that students need to develop for effective interactions across cultures. Cultural differences can be experienced in transnational exchanges, but they also occur within domestic contexts. In response to increasing globalization, college graduates need to develop intercultural competence, and one responsibility of higher education is to contribute to this development. As more institutions of higher education adopt intercultural learning as a goal, it is important for the scholarship of teaching and learning to address the most effective ways of teaching such skills. This study examines a diversity and social justice course offered primarily to agriculture students that was designed to increase the students’ IC. Because the field of agriculture is not immune from increasing globalization and diversification (Tindell, Young, O’Rear, & Morris, 2016), it is imperative for agriculture graduates to be equipped for cross-cultural interactions. With increased scholarship on diversity and social justice courses, a greater depth of understanding can lead to more effective design and pedagogy in subjects that are difficult to teach.

LITERATURE REVIEW
As the cultural landscape of the United States continues to change rapidly, there is a need to promote positive intergroup relations between and among people from different backgrounds and experiences. With an increase in diversity, American colleges and universities must play a critical role in exposing the next generation to diverse people, ideas, and perspectives. Institutions have a responsibility to “foster intellectual honesty, responsibility for society’s moral health and for social justice, active participation as a citizen of a diverse democracy, discernment of ethical consequences of decisions and actions, and a deep understanding of one’s self and respect for the complex identities of others, their histories and their cultures” (The Association of American Colleges and Universities, 2002, p. xii). One means of fostering this exposure and preparing students to be active and engaged participants in a global society is through college diversity courses, which are defined here as those that have a primary emphasis on ethnic studies, women’s studies, diverse cultures, and/or social justice. Creating and maintaining elements of diversity and social justice in the curriculum (whether in stand-alone classes or woven throughout the curriculum) is essential in raising awareness and creating empathy for others. The goal is for students to leave these courses with the ability to recognize, accept, and celebrate the differences that exist within our global society.

There are numerous studies examining curricular diversity content and perspectives in higher education. Most studies evaluating the effectiveness of undergraduate college diversity courses that are required for graduation have been conducted in teacher education. These studies have suggested that diversity courses, in general, have positive effects on college students’ cognitive development. Bowman (2009) provides an in-depth review of such studies. These studies were primarily conducted in teacher education programs but provide longitudinal evidence of the link between cognitive development and diversity coursework. Studies that are not limited to teacher education programs but rather examine curricular diversity initiatives more broadly in undergraduate education have also found that such initiatives have positive effects on students’ openness to cultural awareness, interest in racial understanding, and greater appreciation of multiple cultures (Astin, 1993; Chang, 2002; Hurtado, 1996; Institute for the Study of Social Change, 1991; Villalondo, 1994).

Although diversity courses are widespread in higher education, there is a lack of programmatic uniformity. Yet, the requirements that specifically address diversity in American society regularly aim, either implicitly or explicitly, to develop students’ critical thinking skills by challenging them to think more deeply about their assumptions concerning race, ethnicity, gender, class, sexual orientation, or physical disabilities (Banks, 1991; Chang, 2002; Lawson, Komar, & Rose, 1998; Sleeter & Grant, 1994). It has also been argued that such requirements are compatible with certain aims of liberal education, namely to foster better communication of socio-cultural differences so that students can improve their chances for contributing to communality and for succeeding in an increasingly diverse society (Humphreys, 1997; Martínez Alemán & Salkewert, 2001). Largely for these educational reasons, many colleges and universities have included the knowledge base related to the concepts of diversity and multiculturalism within general education (Musil, Garcia, Hudguns, Nettles, Sedlacek, & Smith, 1999).
Bandura (1986) highlights social cognitive theory of behavior change as a theory that provides insight into effective methods for developing social justice competencies in diversity and multiculturalism courses. This theory can impact the development of self-efficacy or self-confidence in interpersonal interactions to promote increased levels of behavioral change. For the development of social justice outcomes, students should first acquire necessary knowledge such as developing cultural awareness and have ample opportunity to practice and apply the new knowledge in contexts supportive of the desired behavioral outcomes (Mayhew & Fernandez, 2007). Therefore, improving knowledge and practicing the application of new knowledge can improve self-efficacy which can then result in improved behavioral choices and actions (Mayhew & Fernandez, 2007). Combs’ (2002) study concluded that operationalizing the self-efficacy principle required student reflection in the application of new knowledge. Students who reflected on and examined the material from different perspectives, and applied this knowledge to analyzing societal problems, consistently gained a better understanding of themselves and issues related to diversity, regardless of course content (Mayhew & Fernandez, 2007).

An examination of students’ involvement in diversity courses reveals differing experiences. According to Steir-Younis (1993, as cited by Tabit, Legault, Ma, and Wan, 2016) there are three fundamental dynamics within multicultural education courses: the education experiences should be approached in such a way that all students in the classroom are able to benefit through the recognition and validations of diverse student experiences (p.182) 1; learners’ race, gender, ethnicity, and cultural background influences their worldviews, experience in the course, and understanding of the content; and power dynamics in the classroom influence students’ participation and sense of security. The interplay of these broad factors may elicit one of two orientations to diversity courses according to Bowman (2009): the exploration perspective and the resistance perspective. Summarized, the exploration perspective states that students with less diversity-related experiences throughout their lives will gain more from diversity courses. The exploration perspective assumes that privileged students (e.g., White, male, wealthy) have had less diversity-related experiences than marginalized students, and therefore they will experience a greater level of disequilibrium required for cognitive growth (Bowman, 2009). Bowman (2009) goes on to describe the resistance perspective where students from privileged groups resist engaging with or considering the content of diversity courses, thus resulting in less cognitive growth.

Student resentment of and resistance to multicultural education has been marked throughout the literature. Mildred and Zúñiga (2004) characterized their experiences of student resistance by a lack of awareness of the relevancy of diversity issues or the need for self-reflection and found that students consciously or unconsciously undermined classroom activities. Brown’s (2004a, 2004b) oppositional sentiments appeared to be related to insufficient pre-class preparation; reluctance to engage in coursework and class discussion, and general lack of commitment to cross-cultural engagement. Furthermore, “the race, ethnicity, and/or gender of an instructor, may also influence resistance” (Brown, 2004a, p.337). Supporting and eliciting deep engagement from all students is a difficult task. If students reject the message of a multicultural education course, they are unlikely to engage with the material in depth; for these students it may be unlikely that the desired learning outcomes are achieved (Whitehead & Wittig, 2005). More research is needed to better understand how to overcome student resistance; the present study seeks to contribute to this field of knowledge. This study uses the Beliefs, Events, and Values Inventory (BEVI) to gain a better understanding of students’ experiences in a diversity and social justice course taught primarily to agriculture students. The specific course under study, Communicating Across Cultures (CaC) uses intercultural competence as a framework that underscores the course’s learning goals.

Intercultural Competence
Many research studies have been conducted on the assessment of learning outcomes in higher education courses. For a compilation of such work, see Diamond (2008). Much of the research around assessment, however, is focused on cognitive learning which can be measured using markers such as grades (Acheson, et al., 2019). Transformative learning experiences, which often highlight the affective dimension of learning, cannot be assessed in the same way; this is a burgeoning area of research. Wehlburg (2011) highlights the difficulty of assessing such courses but goes on to argue the importance of this task. This paper exemplifies one method of assessment.

CaC is a transformative learning course designed to improve the intercultural competence (IC) of students. Because IC has a variety of definitions within the literature, the authors define IC in this paper as a “set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts” (Bennett, 2015, p. xxiii). A variety of cultural contexts includes the “interaction between people who…represent different or divergent affective, cognitive, and behavioral orientations to the world (Spitzberg & Changnon, 2009, p. 7).

Several studies have been conducted on assessing IC as a learning outcome in a variety of course types such as study abroad and service learning (Deardorff, 2011), but there are still avenues related to assessing IC to be explored. Deardorff (2011) raises the question, “What roles do personal traits, self-schema, emotions, and motives play in intercultural competence development and assessment?” (p.77). Hode, Behm-Morawitz, and Hays (2018) begin to address this question in their observations of the role of geographic background and comfort with computers in the effectiveness of an online diversity course. This study addresses Deardorff’s (2011) question in more depth. Additionally, more research is needed to understand student experiences and outcomes in courses focused on domestic diversity where students engage with the variety of cultures present in their home country. One study examined a small group of graduate students in an online course and found attitude changes as a result of a transformative learning curriculum (Enger & Lajimodiere, 2011). This study had a small population of 18 students, however, and they were all doctoral students who were likely skilled in higher order thinking. Another study, Snodgrass, Morris, and Acheson (2018), assessed the intercultural sensitivity of students in a social justice and diversity course that focused on diversity within the U.S. context. For most students in this course, the U.S. was their home country. This study used the Intercultural Development Inventory (IDI) to assess intercultural sensitivity, but the researchers found it to not be the best assessment tool for the course; they suggested the BEVI.
This instrument can help identify “who learns what, why, and under what circumstances” (Shealy, 2015, p. 116). Implicit within this claim, and potentially useful for observing Bowman’s resistance or participation perspectives, is that individuals vary in the degree to which they are open to alterations in their beliefs, values, or worldviews. Therefore, the BEVI was well-suited to address the intended objective of the present study: to determine which aspects of students’ identities are most salient to their experiences in CaC.

METHODS
The data for this IRB approved study were collected during the Fall 2017 and Spring 2018 semesters at a large, Midwestern university. The BEVI was distributed to students in both the online and face-to-face sections of the course, CaC, but the data for this paper is limited to the face-to-face section of the course. The BEVI assessment was listed as an assignment in the syllabus for the students to complete by the end of the 2nd week of the semester (T1) and during the last week of classes (T2), and the instructions to complete it were listed on the course website. Participants received their individual results, which were in a narrative form, via email. Some of the quantitative group results at T1 formed the basis of an in-class discussion.

The number of students who participated in the pre-assessment was 267; 265 completed the post-assessment. The BEVI was recently updated, however, and the report removed any participants that either did not complete the assessments or failed validity and reliability checks. After accounting for the removed data, N=198 for T1 and 194 for T2. The demographics of the students were as follows: 157 domestic students and 37 international students, 78 males and 116 females, 152 Caucasians and 42 students of color; 86 students identifying as conservative, 41 students identifying as liberal, and 67 students identifying as neither, and 145 students identifying as religious and 37 identifying as non-religious.

Instrument
The BEVI can serve as a formative and summative tool for courses such as CaC whose learning outcomes involve significant changes to the self; the BEVI can provide rich data on who learners are how they see and relate to themselves, others, and the larger world. The BEVI reporting system allows for detailed investigation of subgroup differences relevant to several demographic variables such as race/ethnicity, nationality, socioeconomic class, age, education, religious and political orientations, and gender (BEVI, 2018). This validated psychometric instrument is administered online and implemented in a wide array of contexts, including institutions of higher education, education abroad organizations, organizational leadership training programs, and clinical mental health practice (BEVI, 2018). In development for over two decades, the BEVI has been evaluated and refined through the statistical procedures of multiple factor analyses as well as by subject matter expert review of items. As a result of these processes, there is strong evidence for the BEVI’s stability, reliability, and validity (e.g., content, predictive, construct) (Wandschneider et al., 2015). Table 1 summarizes model fit information for the BEVI, including calculations for chi-square, degrees of freedom, statistical significance, and two fit measures: comparative fit index and root mean square error of approximation.

Structurally, the BEVI comprises three interrelated components: a comprehensive set of demographic/background items, 185 beliefs statements (e.g. “Men and women are simply different”) to which respondents provide Likert-type response, and three reflective open-ended questions (BEVI, 2018). The instrument evaluates responses to the belief statements according to two validity measures and organizes the responses into 17 process scales (e.g. Emotional Attunement) that belong to one of seven domains (e.g. Self Access). Table 2 outlines selected structural components relevant to this study along with sample items for each.

The BEVI is neutral – that is, desired directionality is not designated for its scales – however, administrators of the instrument often interpret BEVI scales within a value framework that suggests a preferred direction. It is important to note that no single BEVI scale should be analyzed in isolation from the other, as the scales by design are interrelated. In Table 2, therefore, scales unrelated to the CaC course learning outcomes have been removed for parsimony, and direction of change on the scales in relation to the philosophical and theoretical foundations of the course are described in a column to the far right. Four of the domains are related to the course learning objectives (Critical Thinking, Self Access, Other Access, and Global Access). Two domains (Formative Variables and Fulfillment of Core Needs) provide additional insight into students’ potential for transformative learning.

The BEVI utilizes the Full Scale Score (FSS), a composite of 11 of the 17 process scales, in multiple index scores which are essential to the process of interpreting group reports as they help users grasp how and why subgroups may experience a learning event differently. The FSS imposes a directionality: higher scores are indicative of more intra-personally healthier, interpersonally more effective, and societally more productive ways of understanding the self, others, and the larger world (Shealy, 2015). A group average FSS is calculated and students are divided into three groups based on their FSS — lowest 30 percent, middle 40 percent, and highest 30 percent. These ranked groupings are utilized in the Profile Contrast, one of several indices, to illustrate how different and similar FSS subgroup are relative to each of the 17 process scales and in T1/T2 scenarios, more nuanced differential impacts as recorded by the scales.

Table 1. Model Fit Information for BEVI Scales (Shealy, 2016, p. 126)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Chi-Square</th>
<th>DF</th>
<th>p Value</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Life Events</td>
<td>428.612</td>
<td>27</td>
<td>0.000</td>
<td>0.977</td>
<td>0.073</td>
</tr>
<tr>
<td>Needs Closure</td>
<td>2993.316</td>
<td>255</td>
<td>0.000</td>
<td>0.911</td>
<td>0.073</td>
</tr>
<tr>
<td>Needs Fulfillment</td>
<td>2855.248</td>
<td>248</td>
<td>0.000</td>
<td>0.912</td>
<td>0.067</td>
</tr>
<tr>
<td>Identity Diffusion</td>
<td>28.973</td>
<td>2</td>
<td>0.000</td>
<td>0.983</td>
<td>0.076</td>
</tr>
<tr>
<td>Basic Openness</td>
<td>619.225</td>
<td>54</td>
<td>0.000</td>
<td>0.956</td>
<td>0.067</td>
</tr>
<tr>
<td>Basic Determinism</td>
<td>536.465</td>
<td>41</td>
<td>0.000</td>
<td>0.927</td>
<td>0.072</td>
</tr>
<tr>
<td>Ecological Resonance</td>
<td>456.526</td>
<td>9</td>
<td>0.000</td>
<td>0.967</td>
<td>0.147</td>
</tr>
<tr>
<td>Self Certitude</td>
<td>634.634</td>
<td>62</td>
<td>0.000</td>
<td>0.937</td>
<td>0.064</td>
</tr>
<tr>
<td>Religious Traditionalism</td>
<td>168.821</td>
<td>9</td>
<td>0.000</td>
<td>0.995</td>
<td>0.087</td>
</tr>
<tr>
<td>Emotional Attunement</td>
<td>654.891</td>
<td>62</td>
<td>0.000</td>
<td>0.960</td>
<td>0.064</td>
</tr>
<tr>
<td>Physical Resonance</td>
<td>40.557</td>
<td>2</td>
<td>0.000</td>
<td>0.984</td>
<td>0.091</td>
</tr>
<tr>
<td>Self Awareness</td>
<td>598.360</td>
<td>54</td>
<td>0.000</td>
<td>0.948</td>
<td>0.066</td>
</tr>
<tr>
<td>Socioemotional Convergence</td>
<td>3523.339</td>
<td>369</td>
<td>0.000</td>
<td>0.901</td>
<td>0.061</td>
</tr>
<tr>
<td>Sociocultural Openness</td>
<td>2596.628</td>
<td>225</td>
<td>0.000</td>
<td>0.935</td>
<td>0.067</td>
</tr>
<tr>
<td>Global Resonance</td>
<td>93.898</td>
<td>14</td>
<td>0.000</td>
<td>0.994</td>
<td>0.080</td>
</tr>
<tr>
<td>Gender Traditionalism</td>
<td>765.886</td>
<td>44</td>
<td>0.000</td>
<td>0.948</td>
<td>0.084</td>
</tr>
<tr>
<td>Meaning Quest</td>
<td>836.661</td>
<td>61</td>
<td>0.000</td>
<td>0.925</td>
<td>0.074</td>
</tr>
</tbody>
</table>

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These reports can reveal complex patterns within and between students' identities, which for this study included: gender (male/female), country of origin (domestic/non-domestic), race (White/Non-white), religiosity (religious/non-religious), and political orientation (Liberal/Conservative).

Table 2. BEVI Structure, Scales, and Sample Items (Acheson, et al, in press, 2019)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Scale</th>
<th>Description</th>
<th>Sample Items</th>
<th>Desired Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative</td>
<td>Life</td>
<td>Events</td>
<td>have had a lot of conflict with one or more members of my family; &quot;My family has a lot of problems with money;&quot;</td>
<td>Neutral: Provides additional insight to student identities</td>
</tr>
<tr>
<td>Fulfillment</td>
<td>Needs</td>
<td>Core Needs</td>
<td>&quot;We should spend more money on early education programs for children.&quot;</td>
<td>Increased scores</td>
</tr>
<tr>
<td>Critical</td>
<td>Thinking</td>
<td>Basic</td>
<td>&quot;I have gone through a painful identity crisis.&quot;</td>
<td>Neutral: Provides additional insight to student identities</td>
</tr>
<tr>
<td>Self</td>
<td>Access</td>
<td>Emotional Attunement</td>
<td>I don't mind displays of emotion; &quot;Weakness can be a virtue.&quot;</td>
<td>Increased scores</td>
</tr>
<tr>
<td>Other</td>
<td>Access</td>
<td>Other</td>
<td>I am always trying to understand myself better; &quot;I have problems that I need to work on.&quot;</td>
<td>Decreased scores</td>
</tr>
<tr>
<td>Religious</td>
<td>Tradicionalism</td>
<td>Religious Tradicionalism</td>
<td>Without religion there can be no peace; &quot;There is one way to heaven.&quot;</td>
<td>Neutral: Provides additional insight to student identities</td>
</tr>
<tr>
<td>Gender</td>
<td>Tradicionalism</td>
<td>men and women are built to be a certain</td>
<td>Women are more emotional than men; &quot;A man's role is to be strong.&quot;</td>
<td>Decreased scores</td>
</tr>
<tr>
<td>Sociocultural</td>
<td>Openness</td>
<td>Sociocultural Openness</td>
<td>We should try to understand cultures that are different from our own; &quot;There is too big a gap between the rich and poor in our country;&quot;</td>
<td>Increased scores</td>
</tr>
<tr>
<td>Global</td>
<td>Access</td>
<td>Global Resonance</td>
<td>It is important to be well informed about world events; &quot;I am comfortable around groups of people who are very different from me;&quot;</td>
<td>Increased scores</td>
</tr>
</tbody>
</table>

Individuals receive their results in narrative form via email, however multiple types of de-identified, quantitative group reports are shared with the instructors by a trained BEVI administrator. These reports can reveal complex patterns within and between groups and can demonstrate how individuals grow and change over time. Gender, for instance, is a subgroup difference that often yields significant variation in BEVI results; it is predictive not only at the item level (e.g., “It helps to work through painful feelings from the past”, “Pornography degrades women”), but also at the scale level (e.g., Gender Tradicionalism, Emotional Attunement, Sociocultural Openness, Meaning Quest).

The 17 process scales report results on a 100-point scale, and differences between groups or T1/T2 results that are five points or more are considered significant. While it is possible to obtain raw data from BEVI administrators to conduct statistical analyses, practitioners utilize the analyses provided by the BEVI reporting system.

This study employs the use of the aggregate profile (i.e. the 17 process scales) and the Profile Contrast report. The BEVI system can report these results broken down by aspects of students’ identities, which for this study included: gender (male/female), country of origin (domestic/non-domestic), race (White/Non-white), religiosity (religious/non-religious), and political orientation (Liberal/Conservative).

Course description
CaC is a course that provides an opportunity for students “to understand their place and others in a multicultural, multiethnic, multinational country, the United States” (Purdue University, 2018, p. 2). Undergraduate students in the College of Agriculture are required to complete 3 credit hours in a diversity/social justice course in order to graduate; CaC fulfills this requirement. Therefore, CaC is designed to present an academic overview of the field of social justice as it has evolved to this day. The course offers a basic review of the myriad differences that exist within all human beings. Because the variety among individuals is endless, it is impossible to study all differences; therefore, a sampling including race/ethnicity, gender identity, age, social class, disability, learning styles, and religion/spiritual orientation are reviewed. Issues of poverty, language, power and oppression are also examined in relationship to the above major areas of emphasis.

CaC is a flipped-design course that integrates student-centered teaching into the learning environment through a combination of active, collaborative, and experiential instructional methods and technologies. With the purpose of increasing student engagement and thus higher achievement of course learning goals and objectives, CaC consists of two weekly fifty-minute lectures and a weekly two-hour recitation session. Applying the methodologies of experiential intentionality and praxis in the course design, instructional methodologies include invited expert lecturers, Socratic questioning, individual and group activities, community based service engagement, web-based curriculum exercises, demonstrations, and authentic materials as recommended by Ohara, Safe, and Crookes (2000) to serve as the basis for discussion and critical reflection of the culture such as YouTube videos and VR simulations.

Students are also required to participate, throughout the semester, a guided service-learning project viewed through the lens of diversity. Service-learning is used as a venue for gaining a more comprehensive understanding of human diversity and challenges the students to connect the critical-thinking goals of the course with their personal value and belief systems. In a structured sequence, students progress from individual reflection to dialogue with others in the community, noting personal connections and relating experiences to issues of social justice. As a result, students are expected to make significant shifts in cognition, from simple to complex and dualistic to multiplicitic thinking. Increased cognitive ability allows individuals the possibility of increasing the
complexity of moral reasoning which is imperative in understanding today’s critical social issues (Perry, 1999).

DATA ANALYSIS
The decision on which scales to focus was based on the course objectives and outcomes. The overall goal of the course is to give students an opportunity to understand their place and others in a multicultural society. The student outcomes we focused on assessing with the BEVI were for students to be able to examine their own “beliefs, values, and assumptions regarding cultural differences and social group memberships and experiences,” (self access / critical thinking) to “analyze differences in power and privilege related to social identity groups” including but not limited to race, gender, ethnicity, nationality, and religion, and to “advance democracy outcomes, including perspective taking, citizenship engagement, racial and cultural understanding…” (Purdue University, 2018, p. 2) (other access / critical thinking / global access). We used these outcomes as a lens for interpreting the findings.

For each aspect of student identity, there were 20 comparisons given that there were 10 process scales of interest, a T1 comparison as well as one at T2. As noted, a gap of five points or more is indicative of a meaningful difference or change. We created an additional category - extreme group difference – to designate those groups which differed by 20 points or more. To compare the relative salience of the five aspects of identity considered in this study, we considered the number of these extreme group differences as well as group similarity. With all five aspects of identity considered, there were a total of 100 possible T1/T2 and between-group comparisons each.

Each profile on the report was first examined by two of the researchers and discussed followed by a discussion with the full research team. These discussions took into consideration the learning outcomes of the course, and the findings were included in this paper if they were meaningful and relevant to answering our research question: which aspects of students’ identities were most salient to their experiences in CaC?

FINDINGS
The aggregate profile (Figure 1) reports a summation of the scores for all participants across the seven domains of the BEVI. The aggregate profile showed no meaningful differences between the T1 and T2 assessments of the students except for an upward shift on the basic determinism scale. In addition to the aggregate profile which provides a broad overview of the results, the BEVI report also displays comparisons of participant scores based on demographic variables. Based on these comparisons, country of origin, gender, ethnicity, political affiliation, and religiosity all proved to be salient aspects of students’ identities in the course. Because the BEVI provides large amounts of data, the researchers selected the most meaningful and relevant data to display in this paper. The first meaningful differences were observed based on students’ country of origin. Differences between groups and changes over time are present when examining the scales based on country of origin (Figure 2). On the scale of Emotional Attunement, international students increased from the T1 to T2 assessments. Additionally, there was a between group difference between international and domestic students with domestic students being higher on the Emotional Attunement scale than international students.
Ethnicity was another salient identity affecting students’ experiences in the course. The scales of Identity Diffusion, Basic Determinism, and Gender Traditionalism showed meaningful differences either between groups or over the course of the semester (Figure 5). Caucasian students were lower on the Identity Diffusion scale than students of color at the beginning of the course, and by the end, students of color shifted downward. Caucasian students were also higher on the scales of Basic Determinism and Gender Traditionalism than students of color. Between the T1 and T2, Caucasian students shifted in the upward direction on the Basic Determinism scale.

Political affiliation was the most polarizing identity in terms of between group differences (Figures 6 and 7). Students who identified as conservative were lower on the scales of Negative Life Events, Needs Fulfillment, Sociocultural Openness, and Global Resonance than students who identified as liberal. Students who identified as liberal were lower on the scales of Religious Traditionalism, Gender Traditionalism, and Basic Determinism than those identifying as conservative. Additionally, conservative students demonstrated a meaningful shift in the positive direction on the scale of Basic Determinism between the T1 and T2 assessments (Figure 7).
There were also notable differences based on whether students identified as either religious or non-religious. Religious students were much higher on the scales of Religious Traditionalism and Gender Traditionalism than non-religious students, and lower on the Sociocultural Openness and Global Resonance scales (Figure 8). When looking at change over time, non-religious students increased on the scale of Religious Traditionalism and decreased on the Sociocultural Openness and Global Resonance scales (Figure 9).

Lastly, Figure 10 displays the Profile Contrast for Identity Diffusion. The Profile Contrast displays the data of the lowest 30 percent, middle 40 percent, and highest 30 percent of FSS for each of the 17 process scales to identify trends in scale movements with greater refinement. In this analysis, the lowest 30 percent group increased on the Identity Diffusion scale while the highest 30 percent showed a meaningful decrease.

Because of the correlated nature of the BEVI scales and complexity of the learning outcomes and learners’ social identities, it is helpful to view the results holistically. Table 3 presents the similarity and extreme difference between subgroups among 10 scales of interest across five categories of student identity for both T1/T2 so that the most salient findings, patterns of sub-group differences, and change over time emerge more clearly. For each subgroup (e.g. females and males, politically conservative versus liberal, etc.), there are 20 possible comparisons among the 10 scales of interest. Overall, the data suggest aspects of students’ identities provide students with dramatically different lenses through which they view and experience the course.

In fact, there are 39 instances out of a possible 100 comparisons where subgroups display a 20-point or more difference on only 15 instances where subgroups display a difference of five points or less. Students varied the most by political affiliation with a 16 of 20 possible comparisons with a 20-point or more difference and none within the 5-point range. Significant gender differences were observed between males and females with nine instances of extreme group difference. Students varied the least when grouped by country of origin with only three extreme differences and five, five-point or less differences. Religious and non-religious students did not meaningfully differ on either of the scales in the Self-Access Domain, however they displayed seven instances of extreme group difference. Identity Diffusion appeared to be the scale where subgroups varied the least among the aspects of student identity explored in this study with six out of the 10 possible subgroup comparisons displaying a five-point or less difference.

Despite these cross-sectional differences, all subgroups share a commonality: there were few changes between T1/T2 scores (Table 4) beyond the backlash effect, a finding which aligns with previous research demonstrating that the deep structures of the self are resistant to change (Shealy, 2015). Of 100 possible T1/T2 comparisons, only 13 T2 scores displayed a difference of five points or more. Only one group, non-US students, displayed a significant desired change at T2; their Emotional Attunement scores increased from 34 to 41. Non-religious students were the only subgroup which displayed undesirable significant decreases with Sociocultural Openness scores dropping from 89 to 81 and Global Resonance decreasing from 56 to 49. Notably, non-White students’ Identity Diffusion decreased significantly - 39 to 24 – which more closely aligns with range of values found in other groups. These patterns suggest the directions for future study and pedagogical implications discussed at the end of this paper.

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In this section, to aid the reader in better understanding the findings, we first explain the findings in relation to subgroup variation and then according to pre-/post-test changes. Based on correlations between the scales, a theme of emotional resilience can be seen with relation to subgroup variation. Generally, negative life events and needs fulfillment are negatively correlated. The expectation is that if a person perceived their formative years to be high in negative events, then as adults they would feel unfulfilled in having their present-day needs met. Of the students enrolled in this course, however, a positive correlation was present, especially for women, domestic students, students of color and students who identified as liberal. The positive correlation indicates a quality of resilience; the students were able to overcome their negative early experiences and find ways to meet their needs as they grew older.

Another subgroup variation in this data was based on political affiliation (Figure 6).
who identified as liberals were closer to the learning outcomes of the course than those who identified as conservative. Based on the BEVI results, conservative students scored lower on the Sociocultural Openness and Global Resonance scales and higher on the Religious Traditionalism, Gender Traditionalism, and Basic Determinism (Figure 7) scales than liberal students. A higher score on Sociocultural Openness indicates an openness to a range of cultural practices, and a high score in Global Resonance demonstrates a higher degree of global engagement. These attributes align with the course objectives related to other access. Conversely, higher scores on the scales of Gender Traditionalism, Religious Traditionalism, and Basic Determinism are indicative of more rigid thinking which can lead to more resistance to the course content. Students who identified as religious demonstrated similar BEVI results to conservative students (Figure 8), while women were similar to liberals on the scales of Gender Traditionalism and Sociocultural Openness (Figures 3 and 4).

Table 4. T1/T2 results for 10 scales across five aspects of students’ identities

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Country of origin</th>
<th>Ethnicity</th>
<th>Political Affiliation</th>
<th>Religiosity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male n=196</td>
<td>Female n=196</td>
<td>US n=153</td>
<td>Non-US n=43</td>
<td>Conserv n=130</td>
</tr>
<tr>
<td>Total n=196</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Self-Access Domain**
- Emotional Attunement T1↑
  - Male: 27
  - Female: 68
- Emotional Attunement T2↑
  - Male: 27
  - Female: 69
- Self-Awareness T1↑
  - Male: 66
  - Female: 82
- Self-Awareness T2↑
  - Male: 63
  - Female: 82

**Other Access Domain**
- Sociocultural Openness T1↑
  - Male: 34
  - Female: 78
- Sociocultural Openness T2↑
  - Male: 37
  - Female: 77
- Gender Traditionalism T1↓
  - Male: 56
  - Female: 20
- Gender Traditionalism T2↓
  - Male: 53
  - Female: 22

**Critical Thinking**
- Basic Determinism T1↓
  - Male: 44
  - Female: 26
- Basic Determinism T2↓
  - Male: 51
  - Female: 31

**Global Access**
- Global Resonance T1↑
  - Male: 27
  - Female: 50
- Global Resonance T2↑
  - Male: 30
  - Female: 50

**Scales that Provide Additional Insight to Student Identities**
- Negative Life Events T1 ↔
  - Male: 33
  - Female: 54
- Positive Life Events T2 ↔
  - Male: 37
  - Female: 52
- Needs Fulfillment T1↑
  - Male: 46
  - Female: 30
- Needs Fulfillment T2↑
  - Male: 47
  - Female: 33
- Identity Diffusion T1 ↔
  - Male: 14
  - Female: 21
- Identity Diffusion T2 ↔
  - Male: 18
  - Female: 21
- Religious Traditionalism T1 ↔
  - Male: 67
  - Female: 53
- Religious Traditionalism T2 ↔
  - Male: 68
  - Female: 51

*Approx. a third of students selected an independent affiliation

5 pts or more difference T1/T2, opposite direction
5 pts or more T1/T2, desired direction
5 pts or more difference T1/T2, no preferred directionality
When examining pre-/post-test changes, two themes emerged: a backlash response and identity unsettling. In some cases, students moved in the opposite direction on the scales of what would be expected based on the learning outcomes of the course. Increases in the scales of Basic Determinism in males, females, White students, and conservatives (Figures 4, 5, and 7); Religious Traditionalism in non-religious students (Figure 9); and decreases in the Sociocultural Openness (Figure 9) and Global Resonance (Figure 9) scales in non-religious students are examples of such changes. A higher score on the Basic Determinism scale is indicative of more dualistic and rigid thinking which can hinder students’ abilities to grow in perspective shifting, one of the goals of the course. Higher scores in Religious and Gender Traditionalism reveal a similar rigidity in thought. A likely explanation for these changes is what Susan Faludi describes as a backlash phenomenon, “a largely unconscious reaction to the social progress wrought by” marginalized groups (as cited in Aoki, 1996, p. 1468). Faludi (1991) describes the backlash as both systemic and hegemonic in nature, being spread through myriad venues including news media, popular culture, and politics. Because the CaC course can challenge the deeply held beliefs of some students and some of the course material is counter to what is propagated by the popular media, a backlash response to the material is possible. The backlash effect in this study seems largely to be present in the data for domestic students, white students, males, and politically conservative students (in essence, majority-identity students), a phenomenon not wholly unanticipated based both on the literature and the experience of the course designer.

Lastly, a theme of identity settling and unsettling is seen when examining changes in the Identity Diffusion scale. Students of color were more diffuse (experiencing more discomfort, anxiety, and confusion surrounding in their identities) at the beginning of the course, but left the course feeling more settled. This could mean that the course validated the experiences of students of color, creating a greater sense of belongingness and increasing their self-worth. Additionally, when looking at the changes in Identity Diffusion by FSS groupings, we see evidence reflective of typical transformative learning processes — that is, students on the high end of the spectrum, closer to an optimal BEVI profile in relation to the learning outcomes of the course found resolution in their sense of self, while students in the lowest group (those farthest from the learning outcomes of the course) saw an increase in Identity Diffusion that could signal cognitive dissonance or a disorienting dilemma stimulated by the course curriculum. While uncomfortable, such experiences of cognitive dissonance can serve as the catalyst for transformative learning processes (Mezirow, 1978, 1997) and thus may mark the beginning of a developmental journey for these students.

FURTHER STUDY
As is true with all research, this study had some limitations that necessitate further study. Additionally, some of the findings provoked further questions. One suggestion for future study is to incorporate a T3 survey. Learning experiences that disturb the self-structure would likely be reflected by increases in Identity Diffusion as well as decreases in a number of other scales associated with the FSS. While concerning, this may not be a negative outcome, as it may suggest that a learning experience may have supported transformative learning. Mezirow’s (2000) concept of the transformative learning process is lengthy. He outlines a 12-stage process. Given that it takes time for learners to progress through these phases, a T2 BEVI that is administered immediately after a high-impact learning pedagogy may capture the self in flux. Wandoschneider et al. (2015) reported findings of a study abroad program that administered T1, T2, and T3 BEVIS with T3 conducted 10-22 months after the initial assessment. After participants dropped in all the scales which contribute positively to the FSS, these scales not only rebounded to levels higher than those at T1, but several scores which contribute negatively also decreased. Administering the BEVI a third time may provide insight into whether the decreases in some scales was transitional or represents a more stable change.

This study looked at how individual social identity groups affected students’ experiences in a diversity and social justice course. Further study needs to be conducted on how the intersections of identities influence students’ learning. For example, this study showed students of color and religious students to move in opposite directions on the identity diffusion scale. How might a student of color who identified as religious interact with course material? Outside of the FSS, the BEVI’s automated reporting system does not have the capacity to combine different social identity groups; manual statistical analyses could be run on the BEVI data to identify interactions between demographic variables. A different instrument or approach could also be utilized. For example, Ross (2013) conducted a qualitative case study examining how the intersections of race and gender influenced student conflict resolution in a diversity course. Similar qualitative studies addressing intersectionality are warranted.

Regarding questions that arose from the findings, one area for future inquiry is how to overcome the backlash response in such a course. Faludi (1991) describes the backlash phenomenon as being supported by misinformation so a focus on information literacy could be a potential solution. Busher, Giurlando, & Sullivan (2018) also highlight the role of emotions in promulgating backlash; working to improve students’ emotional intelligence could therefore be another solution. Without further research, however, these ideas are theoretical; empirical studies testing them are justified. Additionally, given the extreme divide between politically conservative and liberal students, more research should be directed to creating and evaluating strategies for teaching value-laden content in an era of hyperpartisanship.

Another question arose related to the change of non-religious students on the Religious Traditionalism scale. The fact that non-religious students increased on that scale was not a result that the researchers were expecting to see. A possible explanation for this shift is the increasing number of religious “nones” in the U.S. Although there are likely some students who identified as atheist or agnostic who were a part of the students identifying as non-religious, religious “nones” identify as nothing — they likely have not given religion much thought at all (Newport, 2016). An increase on the Religious Traditionalism scale indicates in increase in rigidity related to religious beliefs. This is opposite of the goals of the course which aim to decrease rigidity and increase openness to other perspectives. The shift experienced by non-religious students could be a result of religious “nones” being challenged to think about religion more deeply than they had before, resulting in an increased rigidity in their non-religious identity. This shift could also be explained by students identifying as atheist or agnostic becoming firmer in their beliefs as a result of exposure to other religions. Lastly, this group could have been composed of
students who identified as spiritual rather than religious in the T2 after learning the difference between the two during the course. They may have included themselves in the non-religious group while maintaining a rigid belief structure. Interpretation of the question is a limitation of survey methodology, but further study is needed to determine if any of the above possibilities are the reason for the observed shift on the religious traditionalism scale.

Finally, the CaC course is offered in both an online and a face-to-face context. The present study examined the experiences of the students in the face-to-face section of the course. Future studies should compare student experiences in online and face-to-face equivalent courses with attention focused on the influence of students’ social identities.

**Pedagogical implications**

Based on a combination of the findings from the literature and the present study, the researchers provide some recommendations for improving the effectiveness of diversity and social justice courses. We provide recommendations at both the course and administrative levels.

1. The CaC course that was the subject of this study is currently being revised to better support students farthest from learning outcomes. A previous update to the course incorporated a focus on information literacy, and this focus will continue. With the increasing prevalence of fake news, information literacy is needed to combat the spread of misinformation (Auberry, 2018). Additionally, emotional intelligence will be a learning objective embedded in the course. These revisions are based on the ideas posited by Faludi (1991) and Busher; Giurlando, & Sullivan (2018); their goal is to combat the backlash response seen in the students from this study. Designers and instructors of diversity and social justice courses should find ways to incorporate these objectives into their curriculum.

2. Another consideration at the course level is the way in which the ethnic diversity of faculty who teach these courses affect students’ responses. Race and ethnicity influence students’ receptivity to multicultural education (Brown, 2004a; Tindell, Young, O’Rear, & Morris, 2016). CaC attempts to address student biases by incorporating a demographically diverse range of speakers both from the university community and the agricultural industry as a way of centering the identity of the professor of the course. Also, at the course level it is important to recognize that when teaching undergraduate students about cultural diversity, a sufficient number of minorities may be required to facilitate the intergroup interaction necessary to influence changes in cultural beliefs and attitudes. This is supported by Banks’ (2004) theory on prejudice reduction but can also be seen in the findings of the present study where subgroups shifted on the scales, but little change was seen at the aggregate level.

3. Lastly, as an instructor, it is important to integrate multiple theoretical perspectives to better understand the experiences of students from different backgrounds. First, as instructors we have to consider that diversity courses vary in their scope and span. Second, students from different racial and ethnic backgrounds may have varying familiarity with the issues discussed in diversity courses. Third, given the nature of diversity courses and the racial composition of diverse campuses, such courses may include and consequently resonate with some students more than others. Therefore, the contributions of social identity theory (Capozza & Brown, 2000; Tajfel, 1974), self-categorization theory (Haslam & Reicher, 2015), and cognitive development theory (Taylor, 2016), may help explain the differential effect of diversity courses on students with different social identities. In reference to the cognitive development theory, employing activity-based methods, for example, presenting students with an array of discrepancies related to a specific issue, can provide opportunities for students to increase critical thinking skills by examining their uncertainties and testing assumptions in conversation with peers, instead of being told how and what to think by an instructor (Longfield (2009). When students engage and share their authentic self and experiences in the process of learning new material, learning becomes relevant and adds meaning to their personal life’s journey and as a result can be transformative.

While cognitive disequilibrium may be an important first step for students’ moral and intellectual growth in diversity courses, the extent to which students possess familiarity with the course content and the extent to which students’ social identities are validated or threatened may influence whether such disequilibrium transfers into growth. Given the variation in diversity course content, it is essential that researchers consider differences in the content presented as well as students’ racial and ethnic backgrounds (Castellanos & Cole, 2015). One practice that may prove beneficial is to employ a student-centered pedagogy where students become agents in constructing and organizing their own learning. The instructor, at that point, becomes the facilitator of the learning instead of the only vessel of knowledge in the room. When using this method, students become actively engaged in discussions where misconceptions can be challenged by and compared with their peers in solving relevant real-world scenarios (Goldsmith, 2006).

Regarding college and university level operations, administrators should consider requiring multiple courses to address a broad range of learning outcomes related to IC. These goals should also be extended into other areas of students’ academic and co-curricular experiences. Our findings showed identity unsettling in multiple groups of students which may be good as the beginning of a transformative process, but there needs to be a way to support students after completing one diversity course. The American Association of Colleges & Universities suggests that institutions must extend beyond exposing students to this type of curriculum only in their freshman year or through a single course, and “provide many different places and levels where students can revisit earlier understandings, explore new areas of inquiry, and connect knowledge about diversity to their majors” (Musil et al., 1999, p. 27). Embedding intercultural outcomes throughout undergraduate curricula rather than limiting them to one course is a burgeoning area of research (Jones & Killick, 2013; Wahl, Williams, Berkos, & Disbrow, 2016).
CONCLUSION
Wade, Bean, & Teixeira-Poit (2019) recently highlighted the importance of integrating social justice throughout higher education curricula. Their call illustrates the necessity of research related to diversity and social justice courses and coursework within the SoTL field. This study sought to determine the role of personal traits in students’ experiences in a diversity course. Country of origin, gender, ethnicity, political affiliation, and religiosity all proved to be salient aspects of students’ identities in the course, with the greatest divisions being along political lines. In designing effective diversity coursework or integrating social justice perspectives into other disciplinary coursework, instructors must devise ways to address hyperpartisanship present in the classroom while finding ways to minimize the backlash effect in students who are resistant to the course concepts.

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