# Weaving Cultural Relevance and Achievement Motivation Into Inclusive Classroom Cultures

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Despite shifting demographic trends, research on motivation generally remains focused on European American, middle-class, educated samples, calling into question its utility and overall generalizability. Thus, the overarching purpose of this article is to increase the practical and cultural relevance of motivational research. Specifically, we review four key principles of motivation—meaningfulness, competence, autonomy, and relatedness—and unpack how they align with the research on culturally responsive and relevant education. Ultimately our goal is to emphasize the importance of interdisciplinary research and to demonstrate how the principles of culturally responsive education are instantiated in motivationally supportive classrooms where teachers are more culturally sensitive and create an environment where cultural differences are appreciated and valued.

Motivation is a construct that helps to explain *why* individuals choose to approach or avoid a task, and once engaged whether they put in effort and persist or simply quit. Motivational scholars define *achievement motivation* as that which influences the initiation, direction, magnitude, perseverance, continuation, and quality of goal-directed academic behavior (Ames, 1992; Maehr & Zusho, 2009; Weiner, 1974). Contemporary theories of achievement motivation are primarily social-cognitive in nature; thus, they all assume that motivation can be assessed through students' reports of their beliefs and perceptions, as well as through their behaviors, including choice of activities, level and quality of task engagement, persistence, and performance (Maehr & Zusho, 2009). A significant goal of the research on achievement motivation is to build empowering and inclusive learning communities that promote the learning of *all* students. This goal is evident in the research on motivationally facilitative classrooms, which largely demonstrates the positive impact of an autonomy-supportive, mastery-oriented learning climate (Reeve & Cheon, 2014; Urdan & Schoenfelder, 2006). The recent wave of motivational intervention research shows how relatively brief and simple interventions can enhance learning outcomes, particularly for first-generation and/or students of color (e.g., Harackiewicz, Canning, Tibbets, Priniski, & Hyde, 2016).

Despite these contributions to the literature on learning, and its general focus on promoting learning for all, the motivational literature has come under some scrutiny. Several scholars note that despite shifting demographic trends, there is a relative dearth of motivational research that focuses explicitly on the *racialized* experiences of students of color (DeCuir-Gunby & Schutz, 2014; Wood & Graham, 2010; Zusho, Daddino, & Garcia, 2016). However, recent reviews show that scholars are becoming increasingly attentive to how culture and ethnicity impact motivational processes, but there remains less focus on issues related to race such as oppression and prejudice (DeCuir-Gunby & Schutz, 2014; R. King & McInerney, 2014; Kumar & Maehr, 2010; Zusho & Clayton, 2011).

Concurrently, research in education is advancing our understanding of schooling experiences of racially and ethnically diverse youth (e.g., Banks, 1997, 2016; Darling-Hammond, 2006; Gay, 2010, 2013; Ladson-Billings, 1995, 2014; Sleeter, 2011). For example, issues related to race are paramount to understanding the schooling experiences of African American and Latinx students in culturally-responsive and -relevant education (CRRE). Nevertheless, the CRRE literature could be equally scrutinized for its singular focus on students of color, as well as for ignoring the extensive theoretical and empirical literatures on achievement

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motivation despite many shared assumptions about learning. In comparison to the research on motivation, the empirical research on CRRE is predominantly qualitative in nature, limiting the scope of some of its claims.

Accordingly, this article proposes to bridge the literature on achievement motivation with the research on CRRE. Specifically, by highlighting the points of intersection between these disparate yet connected streams of research, we demonstrate how the principles of motivation can be instantiated in classrooms where teachers are more culturally sensitive and create an environment where cultural differences are appreciated and valued. To increase the practical relevance of our analysis and promote further integration of motivational frameworks with one another, we consider the motivational processes of underrepresented, racially, and ethnically diverse students across the dominant social-cognitive theories of motivation (e.g., expectancy-value theory, achievement goal theory, self-determination theory, self-efficacy theory, and interest theory). We utilize CRRE research as a road map to inform the cultural relevance of motivation research by dissecting areas of divergence.

Our analysis comes with a few caveats. First, the research on CRRE focuses predominantly on the schooling experiences of *American* students of color, specifically African American and Latinx students. Thus, in comparing the existing research on motivation with the research on CRRE, we recognize that our analysis may be limited in terms of its generalizability. We maintain, however, that issues of discrimination and prejudice, which are at the heart of the research on CRRE, are not unique to American culture (see Ketner, Buitelaar, & Bosma, 2004; Magos, 2006; Timmermans, Kuyper, & van der Werf, 2015; Van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010; Verkuyten, 2014). We further maintain that by juxtaposing the CRRE with achievement motivation literatures, we may be better positioned to advance our understanding of how culture impacts learning. The CRRE literature is arguably more focused on how macrolevel historical and sociopolitical issues impact the day-to-day schooling experiences of historically marginalized youth. By bridging these literatures, it is our intent to demonstrate that culture is not just "out there" in the macrosystem but an integral part of the microsystems of *all* youth.

Second, given our goal of providing an integrative review, it is equally important to note that what follows is not meant to be a comprehensive review of the literatures of achievement motivation and CRRE. As with the research on motivation, there exist multiple frameworks of CRRE. Our analysis, therefore, draws on the works of Ladson-Billings (1995, 2014) on culturally relevant pedagogy (CRP), and Gay (2010) on culturally responsive teaching (CRT), as well as the broader research on multicultural education when necessary, including cultural sustaining pedagogy (Paris & Alim, 2014). Accordingly, for those readers interested in a more detailed analysis of CRRE, we recommend Aronson and Laughter (2016), as well as the scholarly works of Ladson-Billings (1995, 2000, 2006), Gay (2000, 2010), Cochran-Smith (2004), Darling-Hammond (2006), Milner (2011), Villegas (2002), and Zeichner (2014). Similarly, we direct the interested reader to other more comprehensive reviews of achievement motivation (e.g., Elliot, Dweck, & Yaeger, 2017; Linnenbrink-Garcia & Patall, 2016).

Our article is organized around Table 1, which summarizes our major claims. We begin by briefly operationalizing "culture" and associated constructs such as race and ethnicity. We then provide a comparative analysis of four main principles of motivation, namely, meaningfulness, competence, autonomy, and relatedness. We frame our analysis using these specific principles of motivation because, like Turner (2014), we believe that it allows for the identification of cross-cutting themes across frameworks. Although the research on CRRE often implicates motivational processes, it rarely points specifically to the extensive theoretical literature on motivation. It is our hope that our analysis spurs research around key motivational constructs using a common language. We also aim to identify the shared and unshared understanding of the constructs between CRRE and achievement motivation to illuminate strengths and weaknesses that may prove useful in expanding and improving the quality of research in both fields. We conclude with a discussion of future directions.

## CULTURE: LEARNING IN CONTEXT

Culture is a construct that is not easily defined, despite general agreement about its importance in explaining human behavior. The anthropologists Kroeber and Kluckhohn (1952) famously identified more than 160 definitions of culture, and the number of definitions continues to grow (Condon & LaBrack, 2015). The difficulty in defining *culture* can be attributed to the diversity of perspectives on the topic, further complicated by the introduction of the term into the vernacular (see Condon & LaBrack, 2015; Zusho & Clayton, 2011). Is culture internal, external, or both? Is it rooted in time and/or place, or does it change? Is it something that one can own? Is it something that is observable, and if so, what are indicators of it?

We define *culture* in this article as the framework for human life that consists of people collectively using all the resources in their environment to achieve; is a part of all human groups; is learned, shared, and regulated by political, legal, and social systems; is socially transmitted; represents both external (observable behaviors) and internal (inferred traits) aspects of an individual; and is an abstraction of people's knowledge and beliefs about themselves, other people, and the world. (Zusho & Clayton, 2011, p. 240)

TABLE 1
Comparison of Achievement Motivation and CRRE According to Key Principles of Motivation

| Definitions and Assumptions | Achievement Motivation | CRRE |
|---|---|---|
| Culture | Defined often in terms of shared norms and values, and of ethnicity—not in terms of race. Issues of power, inequity, and racism are not always central to the discussion on culture. Context is typically defined in terms of microlevel processes related to the classroom or school climate. | Fundamental assumption that all learning is cultural with primary focus on race, oppression, and prejudice, and by extension the consequences that cultural hegemony has on minority students' learning and development. |
| Meaningfulness | Defined in terms of specific values or reasons for task engagement, such as the extent to which students find a task or domain to be interesting, important, or useful. Expectancy-value theory also recognizes costs associated with task-engagement. | Defined in terms of curricular content that is culturally relevant, and as the learning process that legitimizes students' cultural background and is aligned with students' individual and cultural modes of learning. |
| Competence | Defined in terms of an ability to interact effectively with one's environment (White, 1959). Assumes that students with higher levels of academic competence are more likely to achieve success in school. | Defined as cultural competence, the development of a multicultural identity that reflects on, understands, and is sensitive to one's own and others' cultural identities. Students' academic competence and teachers' professional efficacy are incumbent on achieving cultural competency. |
| Autonomy | Primarily defined as the extent to which individuals perceive that they can accept, endorse, and regulate their own goals or actions (Ryan & Deci, 2017). Assumes that students who perceive greater sense of autonomy are more likely to experience intrinsic motivation | Defined as personal and collective agency achieved through critical reflection on self and society. The emphasis is on acquiring a sense of autonomy to have the power and responsibility to take actions that lead to individual growth and societal change. |
| Relatedness | Defined in terms of forming and maintaining close and secure relationships with others (Ryan & Deci, 2017), or in terms of belonging, which also considers in-group and out-group dynamics. | Emphasized as teacher–student relationships marked by cultural sensitivity and authentic care. Culturally relevant and responsive pedagogy counters feelings of alienation and is essential for relationship building in school. |

*Note.* CRRE = culturally-responsive and -relevant education.

This definition is broad enough to be shared by scholars of both CRRE and achievement motivation. Indeed, similar definitions have been highlighted in motivation research (see Zusho & Clayton, 2011) and CRRE research (see Banks, 1997; Bullivant, 1989; J. E. King, 1997). Banks (1997), for example, defined culture as "the unique values, symbols, life-styles, institutions, and human-made components that distinguish one group from another" (p. 124). This emphasis on group membership is echoed by other CRRE scholars who define culture as groups' "ways of thinking and living" (J. E. King, 1997, p. 270) and of "surviving and adapting to the environment" (Bullivant, 1989, p. 27). Despite their similarities, the important differences in how these literatures operationalize culture warrants further discussion (see also Table 1).

Social-cognitive studies of achievement motivation are commonly described as taking a person-in-context perspective (see Maehr & Zusho, 2009; Zusho & Clayton, 2011). Therefore, contemporary motivational theories all recognize how motivational processes are shaped by contextual factors. From a Bronfenbrennian (1977) perspective, however, motivation researchers tend to define context in terms of microlevel factors such as the nature of instruction, tasks, and activities that take place in a classroom (Anderman & Gray, 2017; Linnenbrink-Garcia & Patall, 2016; Urdan & Turner, 2005), as well as the interpersonal context of the classroom (see Wentzel, 2017; Wentzel & Muenks, 2016)

and forces related to school climate (Anderman & Gray, 2017).

Of course, motivation does consider broader, macrolevel factors. The notion of culture as a macrolevel blueprint is represented in the sizable and growing literature examining cross-cultural differences in motivational processes (see Zusho & Clayton, 2011), which largely operationalizes culture in terms of nation of origin. Guided primarily by a postpositivistic quest to document universals in motivation, these cross-cultural studies typically explore mean-level differences in motivational beliefs by nation of origin, or investigate the extent to which the same motivational patterns can be found across specific countries or ethnic groups (P. Chen & Zimmerman, 2007; Eaton & Dembo, 1997; Klassen, 2004; Lepper, Corpus, & Iyengar, 2005; McInerney & Ali, 2006; Randhawa & Gupta, 2000; R. M. Ryan & Deci, 2017, Salili, Chiu, & Liu, 2001).

Another prime example is modern expectancy-value theory (Wigfield & Eccles, 2000), which recognizes *cultural milieu*—defined in terms of gender role and cultural stereotypes related to subject matter and occupational preferences—as an important, yet distal, influence on students' expectancies for success and subjective task-values. Self-efficacy theory also recognizes how motivational processes are shaped by larger societal changes, including demographic composition of schools, structure of families, and innovations in technology (e.g., Bandura, 1997).

Thus, the research on motivation primarily defines culture in terms of microlevel contextual factors related to the classroom or school, or in terms of macrolevel factors such as nation of origin, or even individual-level factors such as ethnicity (a topic to which we turn shortly). Although acknowledging the importance of culture and context, social-cognitive approaches could be scrutinized for failure to consider interactions across systems of development and how culture is often instantiated in the everyday activities and practices of the microsystem (see Vélez-Agosto, Soto-Crespo, Vizcarrondo-Oppenheimer, Vega-Molina, & García Coll, 2017; cf. Nolen, Horn, & Ward, 2015).

By contrast, one defining feature of the collective work on CRRE is the unwavering conviction that learning is culturally grounded. The embeddedness of learning in culture is evident in the general assumptions of CRRE theories. CRP, for example, proposes not only that students of color must experience academic success but also that they must also develop and/or maintain cultural competence and develop critical consciousness so that they can challenge the status quo of the current social order (Ladson-Billings, 1995). Similarly, research on culturally responsive teaching suggests that to create a culturally responsive learning environment that is empowering, transforming, and validating for students of color (Gay, 2002, 2010, 2013), teachers need to take a critical stance toward entrenched inequity in society and their personal role in perpetuating it (Schmeichel, 2012).

Thus, in comparison to the motivation literature, CRRE theory and research foregrounds culture and underscores how it interacts with the daily schooling experiences of students of color, particularly considering sociopolitical realities such as cultural hegemony and institutional racism (Banks, 2006; Delpit, 2006). The sociopolitical and historical aspects of culture—specifically those related to issues of racism, power, and inequity—are front and center in CRRE literature (see DeCuir-Gunby & Schutz, 2014, for a historical discussion of race in the United States). Thus CRRE's focus on race and ethnicity highlights another important difference between CRRE and motivation literatures.

Like culture, *race* is a construct that has eluded a single definition, despite agreement about its significance in explaining the schooling experiences of students of color (DeCuir-Gunby & Schutz, 2014; Helms, Jernigan, & Mascher, 2005). It can be defined rather simplistically in terms of skin color; however, as DeCuir-Gunby and Schutz (2014) noted, such a definition neglects the fact that 99.9% of our DNA is shared and that there is greater variability *within* racial groups. Complicating matters is the distinction (or lack thereof) between race and ethnicity (Kumar & Maehr, 2010; Zusho et al., 2016). It is common to see these terms used interchangeably in everyday language and in scientific circles. Culture, too, is also often conflated with ethnicity.

Markus (2008) suggested that, in some ways, it is natural to consider race and ethnicity together, as they are both socially constructed ideas and practices that essentially result in the categorization of individuals into groups. However, according to Markus, race signifies notions of power whereas ethnicity does not. More specifically, Markus defined race as the sorting of individuals into groups based on a classification scheme that assumes certain marginalized groups to be different from (typically inferior to) others, emerges when certain groups are perceived as a threat, and is ultimately used to justify the continued oppression of and prejudice against certain groups. Markus defined ethnicity as a construct that allows an individual to identify (or be identified) with a group of people who share a common language, history, nation/region of origin, religion, physical appearance, and/or ancestry. These shared characteristics can be a source of motivation and pride, ultimately resulting in a sense of identity or belonging. When following Markus's definition of ethnicity, significant overlap between concepts of ethnicity and culture is evident.

DeCuir-Gunby and Schutz (2014) noted that studies of race are noticeably absent in the cultural literature on learning, specifically studies that they define as being either *race focused* or *race reimaged*. They define race-focused studies as those framed explicitly around issues of race (and, by extension, oppression and racism) that explore individuals' experiences of being classified into a racial category. These include studies of racial identity (e.g., Spencer, Noll, Stoltzfus, & Harpalani, 2001; Thomas, Caldwell, Faison, & Jackson, 2009), racial socialization (e.g., Hughes, Witherspoon, Rivas-Drake, & West-Bey, 2009), and stereotype threat (e.g., K. E. Ryan & Ryan, 2005). Race-reimaged studies (e.g., Graham, Taylor, & Hudley, 2015) seek to better understand how traditional constructs not derived from racial theories (e.g., constructs related to achievement motivation) are affected by sociocultural factors (i.e., those related to history, context, intersectionality/multiple identities).

However, race-focused or race-reimaged studies of motivation do exist. Indeed, DeCuir-Gunby and Schutz (2014) noted that most of the studies identified in their review (corresponding to 1.3% of studies published in top-tier educational psychology journals) related in some way to issues of motivation. This does not account for the numerous studies published outside educational psychology journals. For example, Graham (this issue) has published extensively on African American students' motivation—including developing motivational interventions based on attributional theory, which aim to increase social skills and motivation to learn among African American boys labeled as aggressive (Graham et al., 2015).

Similarly, a growing number of motivational studies center on issues related to social support, teacher expectations, and factors associated with academic disengagement among students of color (e.g., Comer & Emmons, 2006;

Juvonen, Yueyan, & Espinoza, 2010; Murdock, 1999) who are often marginalized in both society and school. Thus, it appears that issues of relatedness and belonging are central to race-focused and race-reimaged studies of motivation (see also Gray, Hope, & Matthews, this issue). For example, Chavous et al. (2017)) pointed to the "normative experiences of racial stigma" that many African American students experience when attending predominantly White colleges. These include feelings of invisibility or hypervisibility related to their minority status, personal discrimination, and stereotyped treatment. Research on microaggressions further suggests that ethnic minority students are more likely to encounter racialized microaggressions related to the myth of meritocracy—the notion that students have equal chances to succeed, irrespective of race, gender, or class (Minikel-Lacocque, 2013). It has been hypothesized that these experiences, repeated, can undermine students' motivation to succeed and ultimately compromise their desire to pursue careers related to science, technology, engineering, and mathematics.

## MEANINGFULNESS: LEARNING THAT MATTERS

*Meaningfulness* is an important principle of motivation. This is reflected in the theoretical assumption—across multiple theories of motivation—that perceptions of competence are not always enough to spur action; individuals must also want to complete the task. Multiple theories of motivation assume that students are more likely to approach and engage in academic tasks that have personal meaning and significance for them. For example, expectancy-value theory suggests that the quality of motivated behavior is higher when students find the task and/or subject domain important, interesting, and useful, and when opportunity costs are minimized (Wigfield & Eccles, 2000). Interest theory, building on some expectancy-value theory assumptions, further emphasizes the role that situational and personal interest plays in sparking and maintaining students' engagement in the learning process (Renninger & Hidi, 2011). Achievement goal theory, specifically the work on classroom goal structures, suggests that promoting relevance is one of the keys to promoting a mastery-oriented focus in the classroom (Maehr & Zusho, 2009). Finally, self-determination theory argues that intrinsic motivation flourishes in contexts where the psychological needs of autonomy, competence, and relatedness are met (R. M. Ryan & Deci, 2017).

Research framed according to modern expectancy-value theory confirms that students' task values strongly predict choices in activity and subsequent enrollment in courses (Durik, Vida, & Eccles, 2006). Studies have found that when it comes to explaining why students pursue certain career paths, values often supersede other motivational constructs in importance. Given declining rates of students

pursuing careers in science, technology, engineering, and mathematics, there has been renewed interest in understanding how values impact learning and long-term outcomes such as career choice. Indeed, short-term, task-value interventions that primarily target underrepresented minority or first-generation students are becoming common in the literature (Gaspard et al., 2015; Harackiewicz et al., 2016; Renninger, Nieswandt, & Hidi, 2015).

The recent focus in expectancy-value theory on the cost associated with engaging in school-related tasks has led motivational researchers to examine the toll that engaging in specific tasks takes on students. The cost of engaging in a task or tasks is measured in terms of inability to engage in other activities and tasks of interest, or losing out on other opportunities (Chiang Byrd, & Molin, 2011; Conley, 2012); excessive investment of time and effort the task requires (Perez, Cromley, & Kaplan, 2014; Trautwein et al., 2012); and feelings of incompetence the task engenders (Luttrell et al., 2010; Perez et al., 2014).

Correspondingly, the qualification that learning ought to be meaningful to racially and ethnically diverse students is a key requirement of CRRE. For example, Gay describes CRT as validating, empowering, and transforming, because it is "meaningful, challenging, collaborative, dialogic, and connected to students' home and community experiences" (McIntyre, 2015, p. 139). The research on CRRE is predicated on the assumption that the Eurocentric perspective is universal and normative. Therefore, the norms, values, and belief systems emphasized in the various subject curricula, and the social thoughts and interpretations of reality reflected therein, exclusively legitimize European American cultural knowledge and delegitimize the cultural knowledge of minority, disenfranchised groups (Castenell & Pinar, 1993; S. Nieto, 2000). Consequently, schooling may not be a meaningful experience for many students of color.

Addressing this concern, CRRE scholars suggest that teachers make learning culturally meaningful by (a) acknowledging the legitimacy of the cultural heritages of different ethnic groups; (b) incorporating culturally relevant curricular content; (c) relating academic abstractions with students' everyday sociocultural realities; (d) recognizing that students' dispositions, attitudes, and approaches are informed by their culture; and (e) adopting instructional strategies aligned with the discourse styles and behavioral expectations within students' home and community (Griner & Stuart, 2013; Yamauchi & Tharp, 1995). Within the CRRE framework, learning is meaningful when the *curricular content* reflects students' cultural diversity, the learning *process* is aligned with students' individual and cultural modes of learning, and the classroom and home sociocultural *contexts* are in harmony.

The empirical evidence supporting CRRE claims and assumptions has come primarily from smaller scale studies conducted in classrooms comprised exclusively of students of color. Thus, very little is known about how these

principles translate to multicultural contexts. Nevertheless, the collective research suggests positive outcomes of a culturally relevant focus for students of color. Chun and Dickson (2011), for example, reported that Latinx students were more engaged and felt more efficacious when their teachers acknowledged the legitimacy of their cultural heritage and value of Spanish during instruction. Similarly, Boykin and his colleagues (Boykin, 2014; Hurley, Allen, & Boykin, 2009) found that when teachers infused the curriculum and instruction with culturally valued themes such as communalism, elementary and middle school low-income African American students achieved at higher levels in several subjects including language arts, mathematics, and social science. Likewise, Bamhardt (1982) reported that Native American children learned better, were engaged, and were animated in the classroom when interactional styles in the classroom and home community were compatible.

In addition, several excellent examples demonstrate the positive effects on minority students' learning and engagement when academic abstractions are related to their everyday sociocultural realities. Grubis (1991) reported that contextualizing curriculum to the community life of whaling and sealing transformed the learning experiences of students in an Eskimo village school. Recent explorations connecting hip-hop culture to school experiences by incorporating rap lyrics into teaching of science (Emdin, 2010; Emdin, Adjapong, & Levy, 2016; X. Meyer & Crawford, 2011), mathematics (Hubert, 2014; Lesser, 2014), social studies (Stovall, 2006), language arts, and poetry (Gilrain, 2015; Morrell & Duncan-Andrade, 2002; Sánchez, 2010) also represent efforts to make school learning more meaningful for urban African American students. Across these studies, learning was made meaningful by interweaving abstract academic concepts, scientific knowledge, and students' everyday experiences and preferred mode of interactions.

## Comparative Analysis

Motivation and CRRE research share the important assumption that learning should be meaningful. Indeed, it is important and heartening to note that, unlike earlier formulations, the current conception of subjective task value recognizes the role of students' collective or cultural identity in shaping their values regarding the utility of, and the probability of success in, school-related tasks. As Eccles (2009) stated, "In the past, I conceptualized attainment value in terms of the needs and personal values that an activity/behavior or task fulfills. Today I am conceptualizing it more in terms of personal and collective identities" (p. 83).

However, empirical testing does not do sufficient justice to the expectancy-value theoretical model, because many studies continue to operationalize culture as a categorical variable, seeing it, for example, in terms of membership to a cultural group (e.g., Eccles, Wong, & Peck, 2006). We need to employ more nuanced research methods if we want to examine students' subjective values as a function of their cultural knowledge, valued behavioral patterns, and perceptions of societal attitudes toward their cultural group. At the very least, we should develop mixed-method approaches that include both in-depth qualitative approaches enabling us to understand the cultural basis of students' subjective values and advanced quantitative approaches to test the theoretical model.

The research on CRRE also emphasizes the importance of investigating *cultural cost*. We define cultural cost as the psychological cost associated with the lack of cultural meaningfulness of the task, or the cost associated with engaging with curricular material that either distorts or renders invisible the cultures of disenfranchised students, thus placing the school curriculum at odds with students' valued cultural beliefs and behaviors (Arunkumar, Midgley, & Urdan, 1999). There is little doubt that motivational scholars are committed to the importance of making learning meaningful for all students. However, this literature could benefit from a broader consideration of cultural cost. Specifically, the notion that curriculum and curricular tasks designed for students can be a cultural product, strongly influenced by Eurocentric middle-class culture, often remains unrecognized in the motivational literature (cf. Anyon, 1995; Banks, 2006; Ladson-Billings, 2012; Tintiangco-Cubales et al., 2015).

Consider, by way of example, the curricular areas of math and science that are sometimes described as neutral and value free—a position strongly contested by many math educators (Gutstein, 2016; Martin, 2009; Tate, 2005). A widely accepted assumption is the racial hierarchical totem pole regarding math ability, which places Asian and White students at the top and assigns African American, Native American, and Latinx students to the lower rungs (McGrady & Reynolds, 2013; McKown & Weinstein, 2008). The cultural cost of such a racial hierarchical ordering is the distancing of mathematical identity from minority students' cultural identity, thereby undermining the meaningfulness of mathematics in these students' lives (Martin, 2009).

Based on a series of ethnographic and participant classroom observation studies, Martin (2009) argued that mathematics teachers need to develop awareness that teaching practices and school policies informed by stereotypic beliefs associating students' cultural background and their mathematical abilities often have irrevocable consequences for students' mathematical learning and literacy. Further, Martin noted, mathematically successful African American students merge their mathematics and cultural identity and feel connected as "doers of mathematics" (p. 197). Correspondingly, Gutstein (2016) used real-world and student-generated projects (discrimination in housing, house pricing, racial profiling, and learning to read the Mercator map of the world) to teach mathematics from a social justice

perspective to middle school and high school African American and Latinx students. In the language of CRRE, meaningful mathematics teaching helped students think critically about social issues and the power of mathematics in addressing these issues.

Although cultural cost is an important concept for motivational researchers to consider, as evidenced from the literature just reviewed, much of CRRE's claims are based on small-scale, albeit in-depth, qualitative studies of classrooms comprised of students of a particular racial or ethnic background. Thus, questions remain about how findings from these studies would apply to classrooms made up of students of multiple racial and ethnic backgrounds, or if their claims apply to *all* students of color. This is a challenge that CRRE researchers need to acknowledge and address. Social realities, cultural processes, and cultural knowledge are important considerations for making learning meaningful, capturing students' interest in tasks, or sustaining their interest in the subject matter. In future research, interdisciplinary, mixed-methods analysis may be essential to capturing cultural learning processes.

## COMPETENCE: ACADEMIC AND CULTURAL COMPETENCE PROMOTES LEARNING

Motivation research assumes that individuals are motivated toward *competence*, that is, to effective interaction with their environment (Elliot, Dweck & Yaeger, 2017; Usher, 2016; White, 1959). This important assumption can be found in the research on *expectancies*, including the research on self-efficacy beliefs, which are related to one's capabilities to manage and deliver a specific course of action to accomplish a task (Bandura, 1997; Bong & Skaalvik, 2003). They are also related to outcome expectations, or beliefs that certain actions will result in specific outcomes (Bandura, 1997). This assumption is also reflected in achievement goal theory (Maehr & Zusho, 2009), which distinguishes between goals focused on the development and demonstration of competence, as well as in self-determination theory (R. M. Ryan & Deci, 2017), which suggests that competence is a basic and universal psychological need. In fact, Elliot and Dweck (2005) proposed that competence is the "ideal core" of achievement motivation.

The overall empirical literature on expectancy-related constructs generally finds that students who believe themselves to be more competent academically are also more likely to put forth greater effort, persist in the face of failure, use deeper-processing cognitive and metacognitive strategies, report positive rather than negative emotions, and endorse mastery goals (Klassen & Usher, 2010; Usher & Pajares, 2008; B. J. Zimmerman & Cleary, 2006). Similarly, research on teacher efficacy suggests that teachers who report a higher degree of teaching efficacy are more

likely to have higher levels of job satisfaction and lower levels of job-related stress (Betoret, 2006). However, the impact of teacher efficacy on student achievement and motivation remains inconclusive (Klassen, Tze, Betts, & Gordon, 2011). The literature on expectancy-value theory also demonstrates that, when it comes to predicting academic achievement, expectancy constructs are one of the strongest (if not the strongest) motivational predictor of academic achievement (e.g., Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002).

Competence from a CRRE perspective draws, in part, from the research on academic competence (Chun & Dickson, 2011; Lopez, 2016; Siwatu, 2007). However, it also highlights the crucial interrelations between academic and *cultural competence* (see Table 1). Students' academic competence is viewed as an outcome of CRT practices (Lopez, 2016) and as a mediating factor in the relationship between CRT and academic achievement (Chun & Dickson, 2011). Important to note, the underlying assumption in CRRE research is that teachers' efficacy for teaching and students' academic competencies depend on their cultural competence (Emdin, 2010; Gay, 2013; Ladson-Billings, 2014). As discussed earlier, academic competence indicates outcome expectations related to one's capabilities. Cultural competence, on the other hand, is a relational construct wherein individuals progress from an *ethnocentric* understanding of other cultures to achieve an *ethnorelative* comprehension and appreciation of other cultures (P. M. King & Baxter Magolda, 2005). As a relational construct, cultural competence is viewed as simultaneously located in intercultural interactions and in the individuals who participate in the interaction process (Spitzburg & Changnon, 2009). The CRRE research on competence therefore focuses on two major themes: the culturally competent teacher and student and the relationship between academic and cultural competence. We discuss both, in turn, next.

### Culturally Competent Teachers

CRRE theory suggests that a culturally competent teacher is one who (a) has the *cultural knowledge* and familiarity with the history, values, and behavioral expectations of cultural groups represented in the school's student body; (b) displays *cultural awareness* of one's own and others' cultures and demonstrates an understanding of the centrality of culture in informing individuals' cognitions, emotions, and behaviors; and (c) displays *cultural sensitivity* that reflects openness and flexibility without placing value judgments on differences when working with others (Adera & Manning, 2014; Kumagai & Lypson, 2009). Aligned with this definition of teachers' cultural competency, Milner (2011) asserted that translating CRP theory into practice requires teachers to develop multicultural identities by becoming more reflective, understanding, and appreciative of their own and their students' cultural identities. Ladson-

Billings (2009) further suggested that a culturally competent teacher recognizes the diversity manifested in the student body as a strength and succeeds in creating an inclusive classroom environment that simultaneously fosters both positive cross-cultural relationships among students *and* students' sense of sociopolitical consciousness.

Not surprisingly, scholars voice concerns regarding the dearth of culturally competent teachers in schools (Delpit, 2006; Milner, 2011; Shevalier & McKenzie, 2012), and the difficulty that current and preservice teachers have in translating the roles and responsibilities just listed into meaningful, context-specific instructional practices (Cochran-Smith, 2004; Gay & Howard, 2000; Saint-Hilaire, 2014). Explanations for teachers' lack of cultural competence are attributed primarily to differences in students' and teachers' cultural backgrounds (Hollins & Torres-Guzman, 2005; Luke, 2017). Also implicated are teacher licensure programs that do not provide adequate internship opportunities for preservice teachers to engage with minority and low socioeconomic status students (Sleeter, 2012). Often, these explanations unintentionally promote a static view of cultural competency, one that is limited to acquiring knowledge of the characteristics, practices, and beliefs of different minority groups and to the development of skills such as empathy (Kumagai & Lypson, 2009). However, to develop and maintain cultural competence, as indicated earlier, current and preservice teachers need to engage in honest, critical self-reflection. Such reflection involves stepping back to understand one's own assumptions, biases, and values, examining with an open mind how race, culture, and social class shape their own and their students' thoughts, values, language, communication styles, and view of how the world operates (Kumar, Seay, & Karabenick, 2015; Ladson-Billings, 2014).

### Relationship Between Students' Academic and Cultural Competence

CRRE scholars argue that for students of color to feel academically efficacious and experience academic success, they need to perceive academic success as inherent to their cultural identity. There is some empirical evidence supporting this claim, although, as with research on meaningfulness, studies to date have been focused almost exclusively on African American or Latinx populations, primarily of low socioeconomic status. Thus, the relationship between cultural and academic competence for other cultural groups remains to be examined. However, with a few exceptions (e.g., Chun & Dickson, 2011; Lopez, 2016), many of these small-scale studies lack a shared understanding of what it means to be culturally relevant and responsive (Aronson & Laughter, 2016). Future research should better establish the theoretical connections between CRRE and student outcomes. At a minimum, developing a shared understanding of the CRRE paradigm is essential—recognizing, of course,

that the CRRE paradigm is a conceptual framework and not a prescriptive set of practices, and that its instantiation depends on the social and cultural teaching–learning context (Sleeter, 2012).

Research generally finds a positive link between academic competence and culturally relevant practices. Based on a synthesis of research conducted within the CRP (Ladson-Billings, 1995, 2006, 2014) and CRT (Gay, 2002, 2010) frameworks, Aronson and Laughter (2016) reported that engagement in CRRE was associated with increases in students' motivation to learn, interest in curricular content, and sense of academic competence. Several studies demonstrate that CRRE is associated positively with an increase in students' engagement in and efficacy for learning and critical thinking, and with a reduction in behavioral problems (e.g., Bui & Fegan, 2013; Garcia & Chun, 2016; Higgins, Fitzgerald, & Howard, 2015; Hill & Perchauer, 2013; Lopez, 2016; Tyler et al., 2008).

Likewise, Chun and colleagues reported that perceiving teachers as culturally responsive was significantly related to Latinx students' learning outcomes and that this relationship was mediated by feelings of academic self-efficacy and sense of school belonging (Chun & Dickson, 2011; Garcia & Chun, 2016). Using classroom observations and group interviews, Brown and Crippen (2017) demonstrated that students' interest in science and motivation to learn increased when middle school science teachers applied the principles of CRP to build bridges between students' home and school, promote thoughtful interactions in class, and give voice to students' thoughts and concerns. Similar studies conducted with Native Hawaiian, Latinx, and Haitian students (Civil, 2016; Dupuis & Abrams, 2017; Lodge, 2017; Nyika, 2015; Warren, Ballenger, Ogonowski, Rosebery, & Hudicourt-Barnes, 2001; H. T. Zimmerman & Weible, 2017) demonstrate that encouraging the use of home language and cultural understandings for teaching scientific concepts (e.g., metamorphosis, water quality, and community health) supported students' efforts to reason logically and conduct scientifically rigorous analysis. As well, Choi (2013) demonstrated that a social studies teacher's active incorporation of culturally relevant literacy strategies within global history curriculum was effective in enhancing English language learners' interest and engagement.

Another area of focus relates to the inherent difficulty of interweaving cultural identity and academic competence when stereotypes associated with the cultural group suggest that the two are antithetical. For example, Ladson-Billings (2009) noted that African American students need to develop a "relevant black personality" that allows them to "choose academic excellence yet still identify with African American culture" (p. 20), suggesting a dissonance between academic competence and cultural identity. This dissonance is evident in the intervention study with African American and Latina girls in urban Southwest school

districts conducted by Scott and colleagues (Scott, Clark, & White, 2013). These students viewed the computer science profession as the realm of White men and viewed facilities with computer technology as a threat to their cultural integrity. The authors reported that the intervention was successful only when the participants incorporated the "computer technologist identity" as one of the elements in their cultural identity and recognized the role of technology not as an end in itself but as a means to advance their community (p. 636). These findings suggest that societal stereotypes regarding the academic abilities of a cultural group can jeopardize students' feelings of cultural, and consequently academic, competence. In other words, students cannot achieve academic competence at the cost of cultural competence, and teachers need to facilitate both competencies through CRRE. Nevertheless, it is important to recognize that in culturally responsive learning environments students see themselves as equal participants in, contributors to, and co-constructors of knowledge. Consequently, they feel challenged and energized to understand and question the sociopolitical inequities in society (Gay, 2010; Milner, 2011).

## Comparative Analysis

Both motivation and CRRE researchers agree that considerations of the learning context, scaffolding students' understanding of specific tasks in domains such as mathematics, stressing practical applications of the content, and providing socioemotional support are essential for promoting students' actual and perceived academic competence (Emdin, 2010; Gilrain, 2015; Gutstein, 2016; Klassen & Usher, 2010; D. K. Meyer & Turner, 2002). The primary difference between the two streams of literature is the relative importance assigned to cultural competency as a prerequisite for achieving academic competence. On this issue, CRRE scholars are unequivocal in their assertion that achieving cultural competency precedes minority students' academic competence—actual or perceived (Ladson-Billings, 2014; Milner, 2011). They also agree that it is an essential aspect of teachers' efficacy for teaching culturally diverse students.

For example, Kanter and Konstantopoulos (2010) examined the impact of project-based science curriculum examining real-world issues on minority students' achievement, their perception of the value and relevance of science, and their sense of efficacy for doing science-related tasks from a social-constructivist perspective. Teachers participated in professional development in science content and pedagogical content knowledge. Results indicated that although minority students' science achievement scores improved, their sense of efficacy, their valuing of science, and their interest in science in general showed a significant decline postintervention. As the authors acknowledge, social constructivist pedagogical practices without considerations for

CRRE practices were ineffective in promoting minority students' competence in science. These findings suggest that, particularly among minority students, developing cultural competence is necessary to feel academically competent. The findings also imply that the development of cultural competence should be an essential element of teachers' professional development.

We see the greatest interweaving of CRRE and motivation literatures in research on competence. Lopez's (2016) multilevel hierarchical linear modeling study demonstrates that teachers' reported CRT practices, including cultural knowledge and cultural awareness (both components of cultural competence), are predictive of students' academic competence and their reading abilities. Research presented in this section demonstrates that there are clear advantages to weaving the two streams of literature—CRRE and social cognitive theories of motivation—to better understand how we can meet the unique needs of students from different cultural groups while recognizing the universal need of all students to feel culturally and academically competent.

## AUTONOMY: LEARNING IN AN AUTONOMOUS AND EMPOWERING ENVIRONMENT

A fundamental assumption of all social-cognitive theories of motivation is that individuals have an inherent need for independence, personal agency, responsibility, and control. This notion is perhaps best illustrated in self-determination theory, which considers *autonomy*—the extent to which individuals perceive that they can accept, endorse, and regulate their own goals or actions—as a basic human need and a fundamental motive necessary for intrinsic motivation (R. M. Ryan & Deci, 2017). Although most often associated with self-determination theory, other motivational frameworks also incorporate autonomy. For example, interest researchers have linked the development of personal interest to autonomy (Renninger & Hidi, 2011), whereas goal theorists have identified autonomy support to be critical to the establishment of a mastery-oriented learning environment (Turner, 2014).

Recent empirical research on autonomy focuses primarily on autonomy support. For example, a growing body of work examines how teachers support students' autonomy (Stefanou, Perencevich, DiCintio, & Turner, 2004). Researchers commonly describe teachers who are rated high in autonomy support as teachers who not only provide choice but also listen to students and allow them to manipulate instructional materials and ideas. These teachers consider student preferences and interests in selecting and designing tasks, provide rationales for those activities, and give students opportunities to ask questions (Patall et al., 2017; Reeve, Bolt, & Cai, 1999; Rogat, Witham, & Chinn, 2014). Autonomy-supportive teachers are not controlling;

they embrace student perspectives and do not pressure student thoughts, actions, and feelings (Patall et al., 2017).

CRRE scholars describe autonomous persons as those who can shape, and determine the course of, their own lives (Raz, 1986). Their conception of autonomy is aligned with empowerment, which individuals must develop to act in accordance with their interests (Moses, 1997). Given the political nature of multicultural education, autonomy in CRRE literature is often discussed in the context of institutional cultural hegemony. This hegemony is designed to reproduce social inequalities by marginalizing minority students, using practices such the disproportionate tracking of minority students into poor quality schools and classes where the emphasis is less on learning and more on behavior management. Cultural hegemony also emerges in the imposition of Eurocentric beliefs, values, and mores on minority students through school curriculum and policies that silence their voices (Banks, 2006; Delpit, 2006). Student autonomy—developed through transformative, culturally responsive pedagogy that encourages them to own their learning by questioning and challenging curricular assumptions and constructing their own reality—is crucial for combating cultural hegemony (Anyon, 1995; Cochran-Smith, 2004; C. Nieto & Booth, 2010).

According to the CRRE scholar, Moses (1997), creating optimal learning environments for fostering empowered, autonomous students requires (a) a social context where students, regardless of cultural background, are treated and treat others with respect and (b) availability of an adequate range of good academic options, and the independence and ability to make choices and decisions without coercion. In this regard, European American students are more likely than poor and minority students to have a greater range of options, among them opportunities to take advanced math and science courses in high school, and participate in extracurricular opportunities that advance their educational and career aspirations (Kumar & Maehr, 2010).

Moses (1997) provided a philosophical defense of an autonomy-based approach to multicultural education, suggesting that culturally responsive practices expand and enrich students' choices by affirming the diverse cultural conditions from which they come. Culturally responsive practices reflect a deliberate effort to contextualize issues in multiple cultural perspectives, legitimize different ways of knowing and understanding, and make the teaching–learning process more student centered. These practices support students in finding their own voice and making education a shared endeavor between students and teachers (Bonner, 2014). Therefore, a teacher who is genuinely interested in creating an autonomy-supportive learning environment should create a space where students "maintain their cultural integrity while succeeding academically" (Ladson-Billings, 1995, p.476). As Emdin (2010) and Gilrain (2015) demonstrated, embedding science, art, and literature in culturally valued practices is autonomy supportive because it enables students to develop an integrated, autonomous motivation for the subject matter.

Accordingly, in a culturally responsive and relevant teaching framework, autonomy is understood both as a *product* and a *process*. As a product, students who achieve a sense of autonomy feel empowered. As a process, autonomy is a quality that individuals strive to cultivate by thinking critically about what they learn. It is a process because minority students intentionally assert their autonomy when they encounter racism and discrimination. CRRE enables minority students to develop a sense of autonomy and agency in all aspects of their lives so that they are capable of deliberate, critical reflection on social issues such as race and racism that stymie the positive growth and autonomy of marginalized members of society.

## Comparative Analysis

The theoretical and empirical literature in motivation and CRRE disciplines reflect a fundamental philosophical difference. The former views autonomy as an inherent psychological need that, if satisfied, supports the growth and well-being of the individual; the latter describes autonomy as a quality to be fostered and developed to benefit both the individual and society. The empirical work by motivation researchers therefore focuses on the consequences of satisfying this inherent need for autonomy, recognizing that when individuals feel compelled to behave in ways that disregard personal interests and values they experience a loss of autonomy (Koestner & Losier, 1996). However, motivation researchers seldom explicitly recognize the cultural basis of personal interests and values. For CRRE scholars who regard a personal sense of autonomy to be contingent on a strong sense of cultural identity (McIntyre, 2015), the integration and internalization of societally valued behaviors are not always viable options for minority or immigrant students, especially when said behaviors require a denial or negation of a culturally valued aspect of oneself.

In achievement motivation research, autonomy support is interpreted as incorporating choice of activities (Katz & Assor, 2007), providing explanatory rationales (Reeve, Jang, Hardre, & Omura, 2002) and encouragement (Reeve & Jang, 2006), and adopting noncontrolling assessment strategies (R. M. Ryan, Mims, & Koestner, 1983). Achievement motivation researchers have empirically demonstrated that such autonomy supportive practices are associated with positive learning, as well as behavioral and motivational outcomes. Viewed from a CRRE perspective, these practices, although laudable, provide a restricted perspective of autonomy that is specific to a classroom task, generally circumscribed within a standardized curriculum. Indeed, when autonomy is classroom bound, divorced from the broader societal and historical realities of people's lives, it fails to recognize the limited options for informed decision making that are available to disenfranchised minority students. For

example, Steele (1997) argued that stigmatized minority students who disidentify with school and make an unforced and voluntary decision to drop out of school are not displaying autonomous behavior. Disidentifying and dropping out is viewed as a societally restricted decision—a consequence of experiencing stereotype threat, and one that effectively limits future opportunities and options available for these students (Kumar & Maehr, 2010). To combat the consequences of experiencing prejudice and stereotype threat, CRRE scholars emphasize the importance of nurturing students' sense of autonomy to become sociopolitically conscious and academically competent (e.g., Ladson-Billings, 2011; Milner, 2011).

Although CRRE scholars' interpretation of students' autonomy from an educational equity perspective is theoretically comprehensive in scope and vision, it does not lend itself as easily to empirical testing. We believe it would be beneficial if CRRE and motivation scholars were to jointly study creating culturally relevant, autonomy-supportive learning environments for all students, examining the long-term impact of such environments on students' critical-thinking skills, with a focus on sociopolitical consciousness. There have been some attempts to bridge the two disciplinary perspectives to examine the effectiveness of CRRE in fostering students' self-determination (e.g., Heroux, Peters, & Randall, 2014; Wlodkowski & Ginsberg, 1995). Heroux and colleagues suggested that, if students are to become truly autonomous and self-determined, they should be taught goal-setting skills, self-regulation skills, and decision-making strategies simultaneous with opportunities for developing self- and other-awareness. Concurrently, Heroux and colleagues emphasized that it is essential for teachers to understand students' sociocultural backgrounds and examine their biases related to those social worlds. Their work is an excellent example of how to draw on strengths of self-determination theory and CRRE to support students' development of self-determination skills and to become thoughtful and discerning consumers of knowledge.

## RELATEDNESS: LEARNING IN A CARING COMMUNITY

Many motivation frameworks assume that individuals have an inherent desire to relate to others. This may be best illustrated in self-determination theory, particularly relationships motivation subtheory, which reasons that humans have a need to form and maintain close and secure relationships with others (R. M. Ryan & Deci, 2017). Although perhaps not a central component, this notion is evident in other motivation models such as achievement goal theory, which suggests that feelings of safety and belonging are central to establishing a mastery-oriented learning environment (Kaplan, Sinai, & Flum, 2014; Maehr & Zusho, 2009). Such feelings of safety can be heightened when students feel that their teachers care for and respect them (Wentzel, 2010) and when students are encouraged to work productively and collaboratively in groups (Roseth, Johnson, & Johnson, 2008). Interest theory, too, suggests that situational interest can often be triggered by a caring teacher or by group work (Renninger & Hidi, 2011).

It is common to see the terms *relatedness* and *belonging* used interchangeably in the literature (see also Gray et al., this issue). For example, research on the need for relatedness (R. M. Ryan & Deci, 2017) and need for belonging (Baumeister & Leary, 1995) both consider the literature on attachment theory and social support as theoretical foundations, and therefore pay considerable attention to teacher–student relationships and to the relationships students have with peers and parents (R. King, 2015; Wentzel, 2010, 2017; Wentzel & Muenks, 2016). Taken together, this literature confirms the basic tenet of relationships motivation subtheory, namely, that secure and close relationships are associated positively with students' social and academic functioning (R. King, 2015; Wentzel, 2017; Wentzel & Muenks, 2016). In addition to the literature on relatedness, there is, too, a burgeoning literature on belonging, specifically school belonging (Goodenow, 1991; see also Gray et al., this issue; Osterman, 2000; Walton & Brady, 2017). A principal finding is the protective role of sense of school belonging on students' psychological and academic wellbeing. For example, it reduces the negative impact of peer victimization (Wormington, Anderson, Schneider, Tomlinson, & Brown, 2016), discrimination, and acculturative stress (Roche & Kuperminc, 2012) on students' achievement motivation and educational attainment. It also enhances their long-term subjective well-being (Tian, Zhang, Huebner, Zheng, & Liu, 2016).

Similarly, demonstrating care and building learning communities lies at the heart of CRRE. A genuine desire fuels this care to connect with students of all backgrounds, and teachers demonstrate authentic care when they view trusting, respectful, and reciprocal relationships with their students as the cornerstone for students' academic success (Gay, 2010). As an advocate of authentic care, Noddings (2013) contended that students' personal growth is possible only when they believe that they are cared for as individuals. Accordingly, teachers who make a conscientious effort to draw on students' cultural characteristics and experiences to make learning more personally meaningful demonstrate care and consequently enhance students' sense of belonging (D. Chen & Yang, 2017). Other studies have also demonstrated that teachers' manifestation of care is reflected in their pedagogical practices. For example, African American teachers' emphasis on discipline and authority was viewed by African American students in an urban

school as a marker of warm, demanding behavior (Howard, 2001; Irvine & Fraser, 1998; Ware, 2006).

Research further demonstrates that a sense of belonging to school can be promoted by countering cultural dissonance (Arunkumar et al., 1999). When students perceive that values, beliefs, and behavioral expectations at home and at school are at odds, cultural dissonance is exacerbated. CRRE contends that culturally-relevant and -responsive pedagogies counteract such feelings of dissonance and a sense of alienation to school, and some limited evidence supports this claim. Based on an in-depth study of three community-nominated, successful mathematics teachers, Bonner (2014) demonstrated that relationship building is the cornerstone of culturally responsive teaching. By working closely with parents and community members to learn about students' home lives, language, culture, values, and beliefs, and using this knowledge to communicate effectively with students, teachers were able to create environments in which experiencing academic success was integrated into students' cultural identities.

## Comparative Analysis

Motivation and CRRE literatures on relatedness and belonging both recognize the importance of having individuals at school and at home demonstrate authentic care (see also Table 1). One of the clear strengths of motivation research is its broader focus on types of relationships students have in school and beyond. Proponents of CRRE have, by and large, focused on the crucial role of student–teacher relationships in promoting students' sense of belonging to school and identification with academic success. However, the importance of peer relationships in creating a sense of inclusion in school and a commitment to learning, other than in the context of promoting cooperative and collaborative learning, is not well developed in this literature.

By contrast, a sizable literature in motivation explores the nature of peer relationships and their impact on academic functioning (e.g., Wentzel, 2017). The primary purpose of CRRE is to ensure academic success of underrepresented minority students by engaging in culturally-responsive and -relevant teaching; thus the focus on student–teacher relationships may not be surprising. However, if schools are to be culturally responsive and relevant to diverse school populations, peer-related issues are important. Such issues include students' self-segregating into groups defined largely by race and ethnicity (Kim, Park, & Koo, 2015; Kumar, Seay, & Karabenick, 2011; Villapando, 2003) and their marginalizing out-group peers due to ethnocentrism, racial harassment (Crozier & Davies, 2008; Kumar et al., 2015), or differences in academic values and achievement (O'Connor, Fernandez, & Girard, 2007).

CRRE researchers have primarily examined the importance of caring student–teacher relationships for minority students' academic and psychological well-being in small-scale studies conducted primarily in culturally homogenous (e.g., a single minority group) classrooms (Sleeter, 2012). They have yet to address important questions such as, How does a teacher embrace the notion of a culturally responsive "warm pedagogy" (Ware, 2006) for all students? How does a teacher modulate authority and discipline for students from differing backgrounds? Will this lead to essentializing students' cultural backgrounds? Further, will such behavior on the teacher's part be perceived by students as differential teacher expectations of students from different groups, thereby alienating them from schooling and learning?

This is where the research on belonging, particularly the motivational studies that focus on in- and out-group dynamics, can be illuminating. Answers to some of the preceding questions may also be found in recent multilevel, multigroup studies of motivation. For example, Kumar and Karabenick (2014) explored African American, Arab/Arab American, and European American students' perceptions of their learning environment in conjunction with teachers' reports of engaging in culturally responsive teaching. Results indicated that when teachers felt responsible for engaging in culturally relevant teaching practices, students from all cultural groups perceived the learning context as more mastery focused (i.e., valuing improvement, emphasizing effort and understanding, and recognizing mistakes as essential to the learning process).

Results of this study indicate that when students perceive that the curriculum is culturally infused, and when school personnel demonstrate care for all students (e.g., providing language translators to communicate with parents or taking immediate action against ethnic name calling), students, not surprisingly, experience a sense of belonging in the school context. This study also highlights that teachers can be culturally responsive even as they are teaching a heterogeneous student body, because culturally responsive teaching is not teaching *to* specific groups of students. Rather, as stated earlier, culturally responsive teachers create an inclusive classroom environment, fostering positive cross-cultural relationships among students. Further, culturally competent teachers perceive the diversity manifested in the student body as strength to be used in linking curriculum to instruction and the teaching–learning process.

## CONCLUSION

Literature emerging from CRRE frameworks and social cognitive theories of motivation demonstrates a shared interest in ensuring that students develop competence by engaging in meaningful learning tasks in caring and autonomy-supportive learning environments. On the topic of school reform, there seems to be agreement between these two areas of inquiry. For example, Ames's (1992) work on classroom goal structures and Maehr and Midgley's (1996)

work on transforming school cultures detail critical facets of classrooms and schools that are optimal for students' motivation to learn. For example, they both suggest that students would be better served if teachers engage in instructional practices that are meaningful and challenging, actively solicit student participation in classroom decisions, minimize social comparisons, and adopt criterion-referenced rather than norm-referenced evaluation techniques (see Ames, 1992; Maehr & Midgley, 1996; Meece, Anderman, & Anderman, 2006). Similarly, CRRE proponents (Banks, 1997; Sleeter, 1992) argue that rigid time allotment for classes, ability grouping between and within classrooms, inflexible curriculum structure, and bureaucratic hierarchy within schools and classrooms are not conducive to promoting education in multicultural classrooms.

Despite their shared commitment to enhance students' learning experiences in school, the two streams of research nevertheless seem to run on parallel tracks, seldom intersecting—likely as a result of disparate historical origins and philosophical foundations. CRRE literature, emerging from struggles for civil and human rights and justice, emphasizes equity in access to education *for disenfranchised minority students*. The mantra that runs through this literature is that culture—individual and institutional—is at the core of every educational endeavor. Indeed, CRRE scholars' interpretation of meaningfulness, competence, autonomy, and relatedness is grounded in their understanding of education as culturally embedded, antiracist, and rooted in social justice (S. Nieto, 2002).

Motivational researchers' commitment to understanding the causes and consequences of students' motivations in the academic context is driven by the desire to equip *all* children—not just marginalized students of color—to become lifelong learners. This is apparent in the increasing number of multinational and cross-cultural studies that have advanced our understanding of the universal motivational underpinnings of students' engagement and academic achievement (Butler, 2006; Murayama, Pekrun, Lichtenfeld, & vom Hofe, 2013; Richardson & Watt, 2014). Motivational researchers' use of sophisticated statistical methods has advanced our understanding of the complex interrelationships between individuals and their context. Studies using multilevel and latent growth models have made it possible to examine the impact of the characteristics of micro- and exosystems such as schools, peers, and neighborhoods on changes in motivational and learning outcomes for students from different ethnic and racial backgrounds (Byrd & Chavous, 2009; Gutman & Midgley, 2000). However, with few exceptions (see Graham, this issue; Gray et al., this issue; Lopez, 2016), motivational research is relatively silent concerning the structural inequities that exist within our educational system and broader society.

On this issue, CRRE researchers are unrelenting and unequivocal in their call for leveling the playing field and providing all students, particularly vulnerable minority students, with equitable educational opportunities for school success. We argue that motivational research needs to move from the perspective of equality to one of equity when examining students' motivation and achievement. This requires creative and thoughtful ways of examining macrosystems, the structural and cultural features that contribute to inequity in educational options and opportunities, using a variety of research methods.

It is important, however, to note that although the theoretical discussions and philosophical arguments in CRRE literature are politically attuned to societal ills, the empirical work in this field falls short of its visionary ideals. For example, CRRE research has demonstrated, based on small-scale qualitative studies, the successes of culturally competent teachers in educating cultural minority students (e.g., Emdin et al., 2016; Gilrain, 2015; Gutstein, 2016). However, the localized nature of these studies precludes systematic documentation and generalization of findings and translation into meaningful policy implications for the optimal education of all students (Sleeter, 2011).

This leads us to another issue in CRRE research: It is explicitly designed to support the education of marginalized student groups. Consequently, much of this research is conducted in the context of classrooms comprised almost exclusively of students of color. As reported earlier, contextualizing curriculum to the community life in an Eskimo village school (Gubris, 1991) and using rap lyrics to teach science (Emdin, 2010; Emdin et al., 2016), mathematics (Hubert, 2014; Lesser, 2014), and social studies (Stovall, 2006) to African American students are excellent examples of making learning meaningful for these students. However, we still need to ascertain if and how this translates to meaningful learning in multicultural environments. For instance, the instructional strategy employed while teaching African American students may not work as well when teaching in culturally diverse classrooms that also includes students from other cultural groups. It may not even work well for *all* African American students. Furthermore, in the research previously mentioned, the teachers adopting rap music to sustain students' interest in various subject domains were African American. Would students have perceived these "culturally responsive strategies" as authentic if taught by teachers from other cultural groups? Is it important to acknowledge the legitimacy of students' cultural heritage by incorporating culturally relevant curricular content and instructional strategies for motivating students to learn? If so, how does a teacher implement this in a culturally diverse classroom context? Or is it more important for teachers and educators to develop cultural self-awareness, including awareness of prejudices regarding students from minority groups? These questions, and many more, have yet to be answered.

We therefore call for studies that bridge the best of these traditions—culturally sensitive *and* methodologically rigorous studies (see also Urdan & Bruchmann, this issue)

that document how students' motivational processes are not just influenced by but are embedded in their sociocultural and historical roots. Such studies could investigate how specific macrolevel forces such as racism, prejudice, and discrimination affect the development of students' autonomy in the school and classroom contexts; they might also explore the relationship between cultural and academic competence for both teachers and students. Thus, even as motivational researchers would do well to embrace a broader conception of motivation advocated by CRRE scholars in their research, so, too, can CRRE scholars draw on the large body of theoretically grounded empirical motivational research to understand how common, motivationally supportive school and classroom practices can support their goal of empowering students to become autonomous and self-determined citizens. Then, and only then, will *all* students be able to experience true autonomy and exercise their agency to bring about needed changes in society. The time has come to embed motivational research in culture.

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