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Is psychological membership in the classroom a function of standing out while fitting in? Implications for achievement motivation and emotions☆

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ABSTRACT

Education researchers have consistently linked students' perceptions of "fitting in" at school with patterns of motivation and positive emotions. This study proposes that "standing out" is also helpful for producing these outcomes, and that standing out works in concert with perceptions of fitting in. In a sample of 702 high school students nested within 33 classrooms, principal components analysis and confirmatory factor analysis were each conducted on half of the sample. Results support the proposed structure of measures of standing out and fitting in. Multilevel latent profile analysis was then used to classify students into four profiles of standing out while fitting in (SOFI): Unfulfilled, Somewhat Fulfilled, Nearly Fulfilled, and Fulfilled. A multinomial logistic regression revealed that students of color and those on who paid free/reduced prices lunch were overrepresented in the Unfulfilled and Somewhat Fulfilled profiles. A multilevel path analysis was then performed to assess the direct and indirect associations of profile membership with measures of task value and achievement emotions. Relative to the other profiles, students in the Fulfilled SOFI Profile express greater psychological membership in their classrooms and, in turn, express higher valuing of academic material (i.e., intrinsic value, utility value, and attainment value) and more positive achievement emotions (i.e., more enjoyment and pride; less boredom, hopelessness, and shame). This investigation provides critical insights on the potential benefits of structuring academic learning environments to foster feelings of distinctiveness among adolescents; and has implications for cultivating identities and achievement motivation in academic settings.

1. Introduction

Identity research reveals that seeing oneself as distinct is not only vital for identity construction, but is a basic human need (Vignoles, Chryssochoou, & Breakwell, 2000). Yet studies that explicitly examine students' distinctiveness perceptions remain

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largely absent within the metanarrative of psychological research in education in general, and within research on students' personal and social identities more specifically. Learning environments that are attuned with adolescents' identity needs produce students with more positive emotions who also are more motivated to achieve (Eccles & Midgley, 1989; Eccles et al., 1993; Eccles & Roeser, 2011; Roeser, Peck, & Nasir, 2006). For this reason, distinctiveness research may have applied significance for psychologists who provide critical insights to educators on ways to structure learning environments that are socially inclusive, emotionally safe, and motivationally supportive.

The dearth of research on distinctiveness may be because researchers tend to prioritize adolescents' desires to fit in at school (Crosnoe, 2011)—with an assumption that standing out and fitting in represent opposite ends of a continuum. Some psychologists contend, however, that adolescents strive to simultaneously stand out and fit in (Eccles, 2014), and that the concurrent satisfaction of these desires will result in adaptive patterns of achievement motivation (Gray, 2014). If it is possible for students to satisfy their desires to simultaneously stand out and fit in, and if doing so serves as a platform for identity maintenance and construction at school, then examining these desires may provide new pathways for understanding influences on student identities and motivation in achievement contexts.

This article focuses on students' psychological experiences related to their desires for both distinctiveness and similarity, and on how students are fulfilled in the context of a classroom—referred to as standing out while fitting in (SOFI). Recognizing an individual's personal qualities (such as opinions, perspectives, and experiences) serves to affirm the individual's unique existence (Codol, 1984; Demir, Şimşek, & Procsal, 2013)—ultimately contributing to a "valued sense of singularity" (Schachter & Rich, 2011, p. 229). In line with prior identity research (Jansen, Otten, Van der Zee, & Jans, 2014; Shore et al., 2011), the present study advances the argument that the perception of feeling distinguished from one's classmates does not necessarily come at the expense of sharing commonalities with classmates. This study provides an examination of whether SOFI predicts motivation and accompanying achievement emotions in the context of high school classrooms. Guided by optimal distinctiveness theory (Brewer, 1991), this study also investigates whether SOFI indirectly predicts these outcomes through perceptions of psychological membership (i.e., identification) in the classroom. A careful reading of the literature on SOFI reveals multiple perspectives that converge on similar predictions. This article highlights consistencies in previous work, using terms such as (a) distinctiveness and uniqueness, and (b) social identification and psychological membership interchangeably to inform the current state of SOFI research.

1.1. Standing out while fitting in: theory and research

One of the most widely accepted notions in psychology and education is the fundamental importance of the need to belong. Belongingness constructs pervade several frameworks of achievement motivation (Martin & Dowson, 2009) and serve as a foundation for understanding how students' social experiences in school shape their beliefs and behaviors in academic settings. What establishes belonging as a need is the overwhelming evidence showing the damaging effects of experiencing a lack of belonging. When this need is left unfulfilled, individuals can experience stress, health and cognitive decrements, and even mental and physical illness (Baumeister & Leary, 1995). Moreover, a sense of belonging—even in its most basic form (i.e., perceiving similarity and fitting in)—can produce profound effects on students' attitudes, behavior, and cognition. For example, Walton, Cohen, Cwir, and Spencer (2012) demonstrated across three experiments that sharing commonalities with other students can increase perceptions of belonging, heighten achievement motivation, enhance persistence, and positively influence choices to engage in more challenging tasks. Additional research provides consistent support for the importance of fitting in within achievement contexts (Crosnoe, 2011; Martin & Dowson, 2009). Yet even taking into consideration the decades of theoretical and empirical support, education researchers could still come to understand even more about the role of belongingness constructs if they also accounted for perceptions of distinctiveness.

Since the 1970s, scholars have established empirically that humans desire to feel a sense of distinctiveness (e.g., Codol, 1984; Lemaine, 1974; Maslach, 1974; Snyder & Fromkin, 1980). Using the terms uniqueness and distinctiveness interchangeably, Vignoles and colleagues (Vignoles, 2009; Vignoles et al., 2000) describe distinctiveness as a necessary precondition for establishing a sense of self-definition. Further, cross-cultural research shows support for a human desire for distinctiveness in both Eastern and Western societies (Becker et al., 2012).

1.2. Fulfilling the desires to stand out and fit in: implications for social identity

Psychologists use the term social identity to refer to the importance individuals place on their membership in groups (Tajfel, 1981; Tajfel & Turner, 1979). Above and beyond group membership, people who identify with a particular group come to see the world through the lens of being a member of that group. The optimal distinctiveness theory of social identity (Brewer, 1991) can serve as an organizing framework for understanding SOFI. In this framework, the desires to stand out and fit in are social identity needs that individuals seek to satisfy simultaneously. Moreover, Brewer and Roccas (2002) conceptualize these social identity needs as being separate from one another—allowing for individual variation in how much distinctiveness and similarity an individual requires for both needs to be met.

Standing out is not necessarily experienced at the expense of fitting in (Vignoles et al., 2000); and researchers highlight factors that can facilitate SOFI. Previous associated work suggests that SOFI can occur from any of the following: participating in groups that celebrate distinctiveness, playing a unique role inside of a group, perceiving oneself as a loyal but nonconforming group member, or perceiving oneself as a prescriptive deviant (such as deviating in ways that are consistent with how other group members strive to behave) (Hornsey & Jetten, 2004). The notion of SOFI also corroborates with Ellemers and Jetten's (2013)

recent characterization of marginals—individuals who actively seek to maintain a balance between intragroup distinctiveness and similarity. Moreover, marginals may be satisfied with being distinct from other group members, because "being different from others or separating the self from the group can represent an important route to self-actualization, identity, and value" (Ellemers & Jetten, 2013, pp. 6).

Relatedly, some group inclusion theorists propose that the way fellow group members treat an individual can fulfill that person's social identity needs (Shore et al., 2011). In education, researchers could employ Shore and colleagues' inclusion model using the premise that the experience of being treated as a group insider allows a student to fit in while circumventing feelings of isolation. The experience of being valued by group members for one's unique contributions could also facilitate standing out and help alleviate concerns about one's relevance in a group. These two types of experiences are different, but not diametrically opposed. As Shore and colleagues explain, an individual can be treated as a group insider without being valued for his/her unique contributions. An individual may also be valued for his/her unique contributions but be treated as an outsider to the group. In addition, this model suggests that an individual can be treated as an outsider whose unique contributions are not valued, or as in insider whose unique contributions are valued. In this way, treatment inside of a group serves as a potential factor that is responsible for the simultaneous satisfaction of social identity needs. Taken together, prior research suggests that individuals may simultaneously fulfill their desires to stand out and fit in, and both group-based and individual factors may facilitate SOFI.

1.3. Motivational and emotional benefits of SOFI

Although scholars have established standing out and fitting in as basic human needs, they have devoted less theoretical attention to understanding whether these social identity needs work in concert to predict achievement-relevant outcomes, such as motivation and emotion. This association is important for establishing the applied significance of SOFI in achievement contexts. Moreover, considering an indirect association in addition enables a fuller understanding of the factors accounting for the link between SOFI and achievement-relevant outcomes. In the interest of providing a mechanistic interpretation, the paragraphs below and subsequent analyses focus on substantiating why SOFI should be indirectly associated with motivation and emotion.

1.4. Identity research and the broader realm of research on social-relational constructs

In order to underscore the conceptual contributions of the present study, it is important to differentiate fitting in and psychological membership from other social-relational constructs. When researchers publish on social-relational constructs, they sometimes use such terminologies interchangeably—thus running the risk of inaccurately equating disparate constructs (Libbey, 2004). By underscoring the convergences and divergences in terminology, a more comprehensive understanding of social-relational constructs can be achieved, leading to greater specificity in the literature base on students' perceptions of their social experiences in school.

Finn (1989) defines social identification at school (i.e., psychological membership), as the importance a student places on being part of the school environment. Since the late 1980s, research has revealed that psychological membership at school predicts a host of outcomes including positive attitudes toward school (Griffith, 1997), greater motivation to learn (Freeman, Anderman, & Jensen, 2007; McMahon, Wernsman, & Rose, 2009), higher grades (Goodenow & Grady, 1993), higher perceptions of scholastic competence (Pittman & Richmond, 2008), and more active participation in academic settings (Di Battista, Pivetti, & Berti, 2014).

Models of identification with school suggest that other social-relational constructs such as safety, fairness, support, and fitting in serve as contextual factors that predict psychological membership in achievement contexts (for a review, see Voelkl, 2012). The concept of safety diverges from psychological membership in its focus on school violence, physical harm, and personal injury (Mayer & Furlong, 2010). The concept of fairness diverges from psychological membership in its focus on the equitable distribution of instructional practices among learners of diverse ability levels (Thorkildsen, 1989). The concept of a supportive classroom is similar to the concept of school connectedness (Niehaus, Rudasill, & Rakes, 2012), and diverges from psychological membership in its focus on care, concern, and direct assistance. Lastly, the concept of fitting in diverges from psychological membership in its focus on similarity (Gray, 2014). Despite advances in research on these sources of psychological membership, one potential source that researchers have not fully examined involves the experience of SOFI. Doing so provides more nuanced a understanding of how fitting in may facilitate psychological membership within achievement settings. Since SOFI is a way in which an identity becomes salient (Brewer, 1991), SOFI in class should predict a higher degree of psychological membership in the classroom, which should in turn predict positive cognitive appraisals related to achieving in that class (e.g., motivation, emotions).

Identification serves as a means by which SOFI may be related with achievement-relevant outcomes. Optimal distinctiveness theory explains that individuals identify more strongly with groups that simultaneously satisfy their social identity needs (Leonardelli, Pickett, & Brewer, 2010). Relatedly, the identity-based motivation model (IBM; Oyserman, 2007; Oyserman & Destin, 2010) explains that identities can dictate achievement motivation by providing meaning to certain behaviors individuals may enact. For example, a student's construal of whether effort on a scholastic activity is worthwhile depends on whether enacting that particular behavior is identity congruent. Using the IBM, scholars have demonstrated support for the concept that students have a proclivity toward behaving in identity-congruent ways (e.g., Destin & Oyserman, 2010; Ellmore & Oyserman, 2012). In other words, students are more motivated to achieve academically when achievement is consistent with their salient identities.

1.5. Task value and achievement emotions as outcomes

The present study highlights associations between SOFI and a variety of motivational and emotional outcomes. The outcomes identified for inclusion in the present study are critical drivers of achievement choices and academic success. The value students place on learning serves as a cognitive determinant of achievement motivation in the present study (Eccles (Parsons) et al., 1983). This construct is multifaceted, and is frequently assessed along three positively valenced dimensions: (1) intrinsic value—capturing a student's interest in learning about an academic subject (e.g., English, Language Arts), (2) utility value—perceptions of the usefulness of the subject, and (3) attainment value—importance of that subject area.

Investigations on the study of motivation contribute to an understanding of the decisions students make about which activities they choose to do, the time they spend on these activities, and the way they engage in these activities. The concept of task value is particularly relevant for understanding achievement behaviors such as these, considering that task values are associated with academic performance (Hulleman, Godes, Hendricks, & Harackiewicz, 2010), as well as the decisions students make to engage in academic learning (Durik, Vida, & Eccles, 2006; Simpkins, Davis-Kean, & Eccles, 2006). Task value was selected as a motivational outcome of interest for the present study because it is said to be linked with identity formation processes (Eccles, 2009; Gray, 2014). Specifically, students are theorized to value learning when engaging in academic learning is consistent with their identities.

Similar to task value, identity formation processes are theorized as being linked with emotions (Markus & Wurf, 1987), and emotions are theorized as being linked with engagement and achievement (Pekrun, 2006). For example, school transitions are linked with negative affect for adolescents and emerging adults; but those who possess a strong sense of psychological membership are armored against these negative emotional experiences during the transition (Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009). Class-related emotions (Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011) consist of several elements that capture positively and negatively valenced affect at school: (1) before entering class (e.g., anxiety, hopelessness), (2) during class (e.g., boredom, enjoyment, shame), and (3) after class (e.g., pride). Emotions such as enjoyment and pride are positively related with learning outcomes such as effort and academic performance; whereas boredom, hopelessness, anxiety, and shame are negatively associated with these outcomes (Pekrun et al., 2011). In follow-up investigations, positive emotions such as pride are associated with stronger academic performance (Putwain, Sander, & Larkin, 2013), and negative emotions such as anxiety are associated with disruptive classroom behavior (Luo, Lee, Ng, & Ong, 2014).

The motivational and emotional outcomes included in the present study have undergone rigorous psychometric analysis in prior research (Eccles & Wigfield, 1995; Pekrun et al., 2011) and have emerged as established constructs that scholars consistently use in psychological examinations of achievement contexts. The conceptual and empirical clarity of these constructs provide a firm foundation for investigating associations between SOFI and motivational and emotional outcomes.

1.6. Purpose of the current study

Using a sample of high school students, the present study examines whether students will value learning more and experience more positive emotions when their desires to stand out and fit in are fulfilled, due to a stronger sense of psychological membership within their English/Language Arts classrooms. Three primary research questions were addressed.

1.6.1. Research question 1: Are students' perceptions of standing out and fitting in empirically distinguishable from one another?

The majority of research using an optimal distinctiveness theory lens has been conducted in laboratory settings by experimentally arousing the desires to stand out and fit in (for a review, see Leonardelli et al., 2010). Less attention has been devoted to examining the satisfaction of the desires to stand out and fit in within natural settings. Extending this research outside of the laboratory entails considering ways of assessing these human desires while adhering to the theoretical formulations of these constructs. Using self-report measures, the present study assesses whether it is possible to quantitatively distinguish the fulfillment of students' desires to stand out from the fulfillment of students' desires to fit in. Although adolescents are able to distinguish these two concepts during focus-group interviews (Gray, 2014), it is not clear that the conceptual distinction will translate into empirically distinguishable measures.

The social identity literature reveals that standing out and fitting in measures exist only in rare instances (e.g., Badea, Jetten, Czukor, & Askevis-Leherpeux, 2010; Sheldon & Bettencourt, 2002). This may be due to the complexities involved in creating measures that capture SOFI. The work of Badea et al. (2010) and Sheldon and Bettencourt (2002) provide a guide for the initial creation of such measures. Nevertheless, if researchers are to preserve conceptual formulations of these constructs, amendments must be made to current measures of standing out and fitting in.

Social identity researchers should measure the perceived satisfaction of the need, not simply the need itself. In the research on social identity needs, scholars make predictions about what would happen when these needs are or are not met (Baumeister & Leary, 1995; Vignoles, 2009), but not about what would happen when individuals perceive some level of these needs (e.g., high or low). Whereas one person may have a low threshold for distinctiveness but a high threshold for similarity, another person might have a high threshold for distinctiveness but a low threshold for similarity. Creating measures of social identity need satisfaction should therefore involve (1) honoring differences in thresholds for standing out and fitting in, and (2) focusing on how much more distinctiveness or similarity an individual requires from a group for each of these needs to be sufficiently satisfied. Such amendments to need-satisfaction measures would position researchers to examine associations between SOFI and achievement-relevant outcomes in school settings.

1.6.2. Research question 2: Using a profiles-based approach, what are the varying degrees to which students are fulfilled in terms of their desires to stand out and fit in?

The extent to which students' desires to stand out and fit in are met varies; but students also can be grouped together in meaningful ways based on how much these needs are satisfied. Profiles-based approaches are effective for this purpose because they allow researchers to gain a holistic understanding of common response patterns on key variables of interest. In alternative approaches (e.g., simple slopes analysis), researchers choose specific numeric values to assess interaction effects; however, the values they choose are not necessarily reflective of actual response patterns from the study sample (Bauer & Shanahan, 2007). Because the nature of our research question involves a deeper understanding of the synergism between students' desires to stand out and fit in, a profiles-based approach was used for cataloging subpopulations of students in terms of how closely they met a description of individuals whose desires to stand out and fit in were fulfilled.

1.6.3. Research question 3: When students' desires to stand out and fit in are simultaneously fulfilled, will they place greater value on learning and experience more achievement positive emotions due to a greater sense of psychological membership in their classrooms?

Rooted in the perspective that classrooms are contexts in which identities can be cultivated (Faircloth, 2012), it is predicted that standing out while fitting in within classroom settings gives rise to perceptions of psychological membership. Findings consistent with this hypothesis would provide support for a novel theoretical account of the potential social factors that make achievement contexts more appealing to students, and that invite students to strive for scholastic achievement within academic spaces.

2. Method

2.1. Study sample

Of the 716 students eligible for the present study, 702 submitted the documentation necessary to participate. In the sample (M_{age} = 16.5), 18% were freshmen, 23% were sophomores, 23% were juniors, and 38% were seniors. The price students paid for lunch was used as a proxy for household income; 69% of students reported paying full price for lunch and 31% reported receiving a free/reduced-price lunch. In terms of gender, 45% of the participants were female and 55% were male. In terms of ethnicity, 74% were Caucasian, 4% were African American, 9% were Asian/Pacific Islander, 2% were Latino/a, and 10% reported being multiracial or of other ethnic backgrounds. Details of the distribution of students across teachers and classrooms are found in Table 1. The number of classrooms per teacher ranged from one to five classrooms, and the number of students per classroom ranged from eight to 35.

2.2. Measures

2.2.1. Questionnaire refinement

To determine whether questionnaire items would be clear to participants, a focus group of students (N = 13) at various grade levels reviewed questions pertaining to: (1) fitting in and standing out, (2) psychological membership, (3) task value, and (4) achievement emotions prior to survey administration. Students gave their general impressions of the survey items, and suggested slight wording modifications to enhance clarity and readability.

2.2.2. Standing out and fitting in

Measures capturing the fulfillment of students' desires to stand out and fit in were informed by previously constructed measures. For example, prior work shows that simple factor structure can be demonstrated using three items per construct (Ciani, Middleton, Summers, & Sheldon, 2010); perceptions of distinctiveness and inclusion can be assessed using three items per

Table 1
Distribution of students and classrooms by teacher.

	Total classroom *n*	Student *n* per classroom	Min student *n*	Max student *n*	Total student *n* across classrooms
Teacher A	3	32.33	30	35	97
Teacher B	4	16.50	8	22	66
Teacher C	5	22.80	17	26	114
Teacher D	4	24.75	22	27	99
Teacher E	2	17.00	12	22	34
Teacher F	1	27.00	27	27	27
Teacher G	4	17.75	11	21	71
Teacher H	1	24.00	24	24	24
Teacher I	2	25.50	24	27	51
Teacher J	3	16.67	14	18	50
Teacher K	2	22.00	18	26	44
Teacher L	1	21.00	21	21	21
Teacher M	1	16.00	16	16	16
Total	33	23.20	8	35	716

construct (Sheldon & Bettencourt, 2002); and measures assessing related constructs demonstrate strong measurement properties using few items (Bornholt, 2000). Based on measures from prior research (Bornholt, 2000; Sheldon & Bettencourt, 2002), three-item measures were generated in which higher values on these measures indicate that a student's desires to stand out and fit in are fulfilled. That is, rather than assessing how much students had been able to stand out or fit in relative to their peers, the items assessed students' perceptions of whether their standing out and fitting in needs were met in the context of their classrooms. Students responded to the three items using a scale of 1 = *Not at all true* to 5 = *Very true*: for standing out ($\alpha = 0.75$; sample item: In my English/Language Arts classroom, I stand out enough from my peers) and for fitting in ($\alpha = 0.76$; sample item: In my English/Language Arts classroom, the amount of similarity I feel to other students meets my standards).

Extra care was taken to avoid restricting students' perceptions of standing out and fitting in to one particular social dimension over another (e.g., style of dress, academic performance, ethnicity, hobbies). Focus group participants found the items to be very clear. Specifically, when responding to the question, How clear is this item to you? (1 = *Not at all clear* to 5 = *Very clear*), they provided high clarity ratings for standing out items (clarity $M = 4.46$, $SD = 0.44$) and for fitting in items (clarity $M = 4.43$, $SD = 0.37$).

2.2.3. Task value

Eccles and Wigfield's (1995) task value measure was used to assess the value students placed on learning about English/Language Arts in terms of students' perceptions of important, interest, and usefulness. The task value measure assessed intrinsic value (2 items; e.g., How much do you like learning English/Language Arts? [1 = *Not at all* to 7 = *Very much*], $\alpha = 0.84$); attainment value (3 items; e.g., I feel that, to me, being good at English/Language Arts is [1 = *Not at all important* to 7 = *Very important*], $\alpha = 0.78$); and utility value (2 items; e.g., How useful is learning about advanced high school English/Language Arts for what you'll do after you graduate? [1 = *Not at all useful* to 7 = *Very useful*], $\alpha = 0.74$).

2.2.4. Achievement emotions

Students' emotions were assessed using measures from the Achievement Emotions Questionnaire (AEQ; Pekrun et al., 2011). Achievement emotions are the emotions students experience as a function of how they construe their participation in achievement related activities, as well as their interpretations of the outcomes of their achievement-related efforts (Pekrun, 2006). Students were asked about the emotions they typically experience before, during, and after English/Language Arts class. On a scale from 1 = *Not at all true* to 5 = *Very true*, measures of prospective achievement emotions assessed anxiety (5 items; e.g., I get scared that I might say something wrong, so I'd rather not say anything., $\alpha = 0.85$) and hopelessness (3 items; e.g., I have lost all hope in understanding this class., $\alpha = 0.82$); measures of activity emotions assessed enjoyment (4 items; e.g., I enjoy participating so much that I get energized., $\alpha = 0.86$) and boredom (5 items; e.g., I get restless because I can't wait for the class to end., $\alpha = 0.88$); and measures of retrospective emotions assessed pride (4 items; e.g., I take pride in being able to keep up with the material., $\alpha = 0.86$) and shame (5 items; e.g., If the others knew that I didn't understand the material I would be embarrassed., $\alpha = 0.89$).

2.2.5. Psychological membership (social identification)

To assess psychological membership in a manner consistent with the social identity literature, students completed group identification items from Castano, Yzerbyt, and Bourguignon (2003). The target social category (membership in one's English/Language Arts classroom) was inserted into each item (4 items; e.g., I identify with others in my English/Language Arts class [1 = *Not at all true* to 5 = *Very true*], $\alpha = 0.74$).

2.2.6. Student demographics

Students provided their demographic information: age, gender, ethnicity, and grade level. Students also provided information on free/reduced-price lunch status by answering the following item: "If you bought a school lunch tomorrow, how much would you pay? (And even if you never buy a school lunch, think about what you would pay: *I wouldn't pay anything./I would pay a reduced price./I would pay full price.*)."

2.3. Procedure

2.3.1. Eligibility criteria

Drawing from students at a large suburban high school in the Midwestern United States, data for the present study were collected as part of a study of psychological barriers to student motivation and well-being. This high school was chosen because of its commitment to practice-relevant research (Kaplan, Katz, & Flum, 2012); school administrators wished to use motivation theory, findings, and student data to inform their school's educational practices. Aspects of this school partnership were preliminary reports, a final research report, and a workshop designed to assist teachers in brainstorming about how patterns in the data may be linked with their instructional practices.

The sponsoring university's Institutional Review Board granted approval for the recruitment, advertisement, and data collection procedures referenced below. Eligibility for participation required enrollment in an English/Language Arts class that had been marked for inclusion by school administrators. To ensure adequate representation across all grade levels, classroom periods, and instructors, the primary investigator instructed administrators to select those classes that met at various times during the school day. After being provided with a description of the study, all the teachers whose classrooms were selected supported

the inclusion of their classes. This sampling strategy resulted in a mean number of 2.5 participating classrooms per teacher, with each English/Language Arts teacher's classroom being represented in the study.

Approximately one month prior to the study, the primary investigator visited each participating classroom, and explained to students that they were candidates for a study on students' perceptions of standing out and fitting in at school. Students were sent home with a description of the study, assent forms, and consent forms. Students were told that no incentives would be provided for participating in this study, but that those who returned the parental consent and assent forms would be invited to a pizza party during lunch, regardless of whether their parents agreed to have them participate in the study. All students received reminders approximately two weeks prior to data collection.

2.3.2. Data collection

On the day of the survey administration, students completed 15-minute questionnaires in their English/Language Arts classrooms. Research assistants instructed students that if they finished early, they were to hold their questionnaires and sit quietly until most students had finished. At that time, students submitted their surveys into a dropbox located near the research assistant at the front of the class.

2.4. Missing data

Participants' questionnaire response patterns were examined to determine whether patterns of non-response were a concern. Analyses revealed that 99.02% of participants were missing data on two or fewer items. A very high percentage of participants (91.46%) responded to all questionnaire items, 5.74% of participants chose not to respond to one questionnaire item, and 1.82% chose not to respond to two questionnaire items. The percentage of individuals with missing responses on a given item ranged from 0.3% (Fitting In Item 1: "The amount of similarity I feel to other students meets my standards.") to 1.5% (Utility Value Item 1: "How useful is learning about advanced high school English for what you'll do after you graduate?" and Utility Value Item 2: "How useful is learning about advanced high school English for your daily life outside of school?").

Missing values were also examined to determine the number of cases with similar non-response patterns. These patterns varied substantially across participants, with very few participants demonstrating identical patterns of non-response: the percentage of participants with identical non-response patterns ranged from 0.28% to 1.26%. The number of missing response items was comparable across gender ($\chi^2_{(6)} = 8.86$, $p = 0.18$), grade level ($\chi^2_{(18)} = 17.35$, $p = 0.50$), ethnicity (i.e., ethnic minority versus white) ($\chi^2_{(6)} = 7.83$, $p = 0.25$), and lunch price (i.e., free/reduced-price versus full-price) ($\chi^2_{(6)} = 4.74$, $p = 0.58$). Based on the aforementioned response patterns, complete case analysis was employed when testing the predictions of the present study. Like other researchers who have employed complete case analysis over multiple imputation (e.g., Treyvaud et al., 2012), the highest percentage of item non-response in the present data is seen on an outcome measure (utility value, 1.5%). The statistical bias introduced by complete case analysis may be considered negligible under these conditions, especially given the low percentage of item non-responses and similar response patterns across demographic variables.

2.5. Statistical approach

To test the structure of SOFI measures, the sample was randomly divided into two subsamples. SOFI item responses for the first half of the sample were submitted to a principal components analysis using Stata Version 14 (StataCorp, 2015). For the confirmatory factor analysis, a maximum likelihood estimation strategy in Stata Version 14 was employed to compare two possible models using the second half of the sample. A one-factor model was examined in which all SOFI items were loaded onto a single latent variable. This was tested against a two-factor model, in which the three standing out items and the three fitting in items were loaded onto different latent variables. The two-factor model should fit the data better than the one-factor model because, theoretically, distinctiveness and similarity are separate social identity needs.

Ideally for this study, SOFI measures would also show that students with unfulfilled SOFI needs express higher anxiety levels and that students with fulfilled SOFI needs express lower anxiety levels. Such preliminary results would help to limit alternative explanations for any potentially hypothesis-confirming results. Social identity research often assumes that standing out and fitting in are basic human needs (e.g., Brewer, 1991; Hornsey & Jetten, 2004; Sorrentino, Seligman, & Battista, 2007; Vignoles, 2009). Considering that a need is a physiological or psychological requirement for the well-being of an organism, the unfulfillment of a need should be associated with an acute stress response—perhaps in the form of higher anxiety levels. Associations between SOFI perceptions and anxiety were therefore examined.

To group individuals based on their SOFI perceptions, a multilevel latent profile analysis was conducted using *MPLUS Version 7* (Muthén & Muthén, 2012). In latent profile analysis, students with similar responses on the SOFI measures are clustered together, yet are separated from students with dissimilar response patterns. The probability of profile membership was allowed to vary across classrooms. This model-based approach therefore makes it possible to test different solutions (e.g., solutions for two profiles, three profiles, four profiles, five profiles) while adjusting for the nested structure of the data during the construction of profiles. Fit indices are then compared to assess relative improvements in model quality across profile solutions. Model quality is determined by a lower Bayesian Information Criterion (BIC), a lower sample-size adjusted BIC, and reductions in model deviance from one model to the next—as assessed by a parametric bootstrapped Likelihood Ratio Test (LRT).

Following the approach of Henry and Muthén (2010), we included covariates in our multilevel latent profile analysis to obtain auxiliary information about the demographic make-up of the emergent SOFI profiles while also accounting for the nested

structure of the data. In latent profile analysis, individual-level covariates are variables that predict the probability that individuals will belong to one profile over another profile. In this way, covariates were not used in the construction of profiles. Rather, the multinomial logistic regression results we obtained through this analysis provided information on the likelihood of SOFI profile membership given students' gender, free-reduced lunch price status, grade level, and ethnicity.

The primary research questions concern whether the simultaneous fulfillment of the desires to stand out and fit in is related to greater task value and more positive class-related emotions via psychological membership. Ideally for the study, a SOFI profile would emerge in which students' desires to both stand out and fit in are satisfied; and a mediation analysis would show that students in this profile report greater task value and more positive class-related emotions via psychological membership. Mediation is tested by demonstrating an $X \rightarrow M \rightarrow Y$ link, in which X serves as the predictor, M serves as the mediator, and Y serves as the outcome.

This process was tested using multilevel path analysis in MPLUS Version 7 to avoid biased standard errors that arise from ignoring nested data during mediation analysis (Preacher, Zyphur, & Zhang, 2010). To account for the complex nature of our sample, teachers were used as strata and classrooms were used the Level-2 unit of analysis. Using full maximum likelihood estimation and specifying random intercepts, all motivation outcomes (i.e., intrinsic value, attainment value, and utility value) were simultaneously assessed within the same model; and all achievement emotion outcomes (i.e., enjoyment, pride, boredom, hopelessness, shame, and anxiety) were simultaneously assessed in a separate model. For each model assessing the motivation and emotion outcome variables: (1) an indirect association was computed by regressing the mediator—psychological membership—onto SOFI profile indicator variables ($X \rightarrow M$ model); and (2) regressing the outcome variables onto psychological membership, controlling for SOFI profile indicator variables ($M \rightarrow Y$ models). This method for testing mediation can be thought of as a multilevel version of Hayes and Preacher's (2014) multicategorical mediation analysis, where the indirect associations of interest were all at the student level (Level 1) of analysis. The relative indirect association serves as a measure of mediation; and is a product of the indicator code coefficient that is generated from the $X \rightarrow M$ regression model and the mediator-outcome coefficient generated from the $M \rightarrow Y$ regression model. Confidence intervals for all indirect associations were produced through the Monte Carlo method, using 20,000 simulated parameter sets (Selig & Preacher, 2008) to formally assess whether psychological membership serves as a means by which SOFI profiles differ from one another on each dependent variable. Moreover, because the sampling distribution for indirect associations is often asymmetrical (MacKinnon, Lockwood, & Williams, 2004), Monte Carlo confidence intervals provide a more appropriate significance test for indirect associations (Preacher & Selig, 2012), particularly for analyses in which bootstrapping is not possible (e.g., multilevel path analysis).

3. Results

3.1. Preliminary analyses

For the principal components analysis, two components emerged in which standing out items loaded onto one factor and fitting in items loaded onto the other. Factor loadings represent the association between items and factors. Item loadings at a value of 0.32 or higher are said to constitute a meaningful factor loading (Tabachnick & Fidell, 2007), which equates to approximately 10% of the variance in an item being explained by a factor. As seen in Table 2, these components demonstrate simple structure—with no cross-loadings in the rotated component matrix at a value of 0.32 or greater.

For the confirmatory factor analysis, all of the observed variables load significantly on the appropriate latent variables in each of the competing models, $p < 0.05$. In an examination of competing models, model superiority is determined by a significantly lower chi-square statistic and a lower Akaike Information Criterion (AIC) (Schumacker & Lomax, 2004), as well as a standardized root mean square residual (SRMR) value <00.08, a root mean square error of approximation (RMSEA) value <00.06, and a comparative fit index (CFI) of 0.95 or greater (Hu & Bentler, 1995). As predicted, fit indices reveal that the two-factor model best

Table 2
Descriptive Statistics and Estimates from Principal Components Analysis and Confirmatory Factor Analysis of Measures of Standing Out and Fitting In.

Measure/Item	*M*	*SD*	PCA Component 1	PCA Component 2	CFA Standardized Factor Loadings	α
Standing Out						.75
I am okay with how different I am.	3.96	1.03	0.10	**0.78**	0.58	
I am satisfied with how unique I am from other students.	3.79	1.04	0.24	**0.83**	0.94	
I stand out enough from my peers.	3.65	0.99	0.19	**0.75**	0.64	
Fitting In						.76
I blend in enough with other students.	3.78	0.97	**0.82**	0.10	0.69	
The amount of similarity I feel to other students meets my standards.	3.60	1.02	**0.82**	0.27	0.89	
I am okay with how similar I feel to other students.	3.66	1.00	**0.75**	0.18	0.81	

Note. Sample was randomly divided in half for PCA and CFA. Loadings from PCA greater than .70 are boldfaced. On the basis of sampling adequacy (KMO = .74), sphericity (χ^2 (15) = 1221.35, $p < 0.001$), and the determinant (.17), the data are appropriate for PCA. Each fitting in item loads on the first PCA component at a value no less than .75, and each standing out item loads on the second PCA component at a value no less than .75. CFA results presented in the table reflect a two-factor model, χ^2 (8) = 12.63, $p = .13$, SRMR = .03, RMSEA = .04, CFI = .99, AIC = 5682.66. All CFA standardized factor loadings are statistically significant ($p < .001$). Means, standard deviations, and reliability are reflective of overall sample.

represents the data relative to the one-factor model (two-factor model: χ^2 (8) = 12.63, p = 0.13, SRMR = 0.03, RMSEA = 0.04, CFI = 0.99, AIC = 5682.66; one-factor model: χ^2 (9) = 222.02, $p < 0.001$, SRMR = 0.12, RMSEA = 0.26, CFI = 0.67, AIC = 5890.05). Further, the model chi-square values differ significantly: $\Delta\chi^2$ (1): 209.39, $p < 0.001$. The measures developed for this study support the assertion that students with fulfilled SOFI needs express lower anxiety levels. Both standing out ($r = -0.29$, $p < 0.001$) and fitting in ($r = -0.30$, $p < 0.001$) are negatively related with anxiety. This pattern shows that lower SOFI need satisfaction is associated with greater psychological discomfort.

3.2. Profiles of standing out and fitting in

Results of the latent profile analysis indicate that a four-profile solution is substantively interpretable and parsimonious (see Table 3). The entropy score of 0.82 suggests a considerable degree of separation between profiles in the four-profile solution, where a maximum entropy score of 1 would indicate perfectly distinguishable profile characteristics.

In latent profile analysis, it is common for researchers to use cluster parameter estimates, primarily cluster-specific means, to characterize each cluster solution (e.g., Vermunt & Magidson, 2002). Each SOFI profile in this analysis is therefore labeled based on the profile's mean level of satisfaction with how much those individuals stand out and fit in within their classrooms. These scores are shown in Fig. 1. Relative to other profiles, each SOFI profile is described in terms of how fulfilled individuals in that profile are with how much they stand out and fit in.

The largest profile, labeled the Nearly Fulfilled SOFI Profile (N = 329; 47.4% of the overall sample), is characterized by moderately high levels of fulfillment with how much they stand out and fit in. Relative to all other profiles, the second profile—referred to as the Fulfilled SOFI Profile (N = 169; 24.4%)—is characterized by high levels of fulfillment on measures of standing out and fitting in. Generally, these students' personal desires to stand out and fit in are being met. The smallest profile, labeled the Unfulfilled SOFI Profile (N = 22; 3.2%), is a group of students whose desires to stand out are particularly unmet. This group is characterized by the unfulfillment of their desire to stand out and moderate levels of fulfillment regarding how much they fit in. The final profile, labeled the Somewhat Fulfilled SOFI Profile (N = 174; 25.1%), is characterized by moderate levels of fulfillment regarding how much they stand out and fit in. As the error bars in Fig. 1 suggest, each profile (other than one exception) is significantly different from the other profiles in terms of their SOFI fulfillment levels. That exception is for one profile comparison of fitting in. The Unfulfilled SOFI Profile and the Somewhat Fulfilled SOFI Profile are empirically distinguishable from the other profiles in their perceptions of fitting in, but are not significantly different from one another on this variable.

In terms of latent profile membership, average posterior probabilities are high for each of the four profiles (i.e., 0.93 for the Fulfilled SOFI Profile, 0.86 for the Nearly Fulfilled SOFI Profile, 0.90 for the Unfulfilled SOFI Profile, and 0.89 for the Somewhat Fulfilled SOFI Profile). The value of 0.93, for example, is the probability that the average student who is labeled in the Fulfilled SOFI Profile belongs to that category and not a different one. These high probabilities of class membership represent clear delineation across profiles as well as a high level of certainty in each student's assigned profile, and thus, a small likelihood of statistical bias that can be attributed to classification error.

To examine the influence of background characteristics across profiles, a multinomial logistic regression was conducted using the largest group of students (i.e., the Nearly Fulfilled SOFI Profile) as a reference group. Latent profile membership was regressed on gender, grade level, lunch price (coded as full-price lunch versus free/reduced-price lunch), and ethnicity (coded as White versus Ethnic Minority). Results in Table 4 are categorized based on a comparison between each profile and the reference group. Profile membership does not differ by gender or grade level. However, profile membership does differ by lunch price and ethnic majority/minority status. Relative to the Nearly Fulfilled SOFI Profile, the odds of being in the Unfulfilled SOFI Profile are approximately 3.5 times higher for ethnic minority students, (OR = 3.54, 95% CI [1.31, 9.55]). In addition, the odds of being in the Somewhat Fulfilled SOFI over the Nearly Fulfilled Profile are almost 2 times higher for ethnic minority students (OR = 1.78, 95% CI [1.13, 2.80]) as well as for students who received free/reduced price lunch (OR = 1.71, 95% CI [1.03, 2.82]).

3.3. Indirect associations SOFI profiles with task value and achievement emotions

The final analysis assessed whether the simultaneous fulfillment of the desires to stand out and fit in was related to greater task value and more positive achievement emotions via psychological membership. Model specification involved the inclusion of predictor variables at the individual level. Specifically, task value and achievement emotions were regressed onto psychological membership, which was in turn regressed onto profile indicator variables (e.g., a Fulfilled SOFI Profile vs Unfulfilled SOFI Profile indicator variable) and four covariates (free/reduced lunch, ethnic minority, gender, and grade level). Direct paths from all

Table 3
Multilevel latent profile analysis fit indices.

	Free parameters	Log likelihood	BIC	Sample-size adjusted BIC	Entropy	Parametric bootstrapped LRT
Two-profile solution	11	−1689.95	3451.86	3416.94	0.54	83.55***
Three-profile solution	18	−1665.27	3448.30	3391.14	0.70	49.37***
Four-profile solution	25	−1638.50	**3440.55**	**3361.17**	**0.82**	53.54***
Five-profile solution	32	−1627.31	3463.98	3362.37	0.82	52.95***

Note. BIC = Bayesian Information Criterion. LRT = Likelihood Ratio Test. Asterisks indicate statistically significant LRT, where ***$p < .001$. Bold values represent justification for identifying the four-profile solution as most parsimonious.

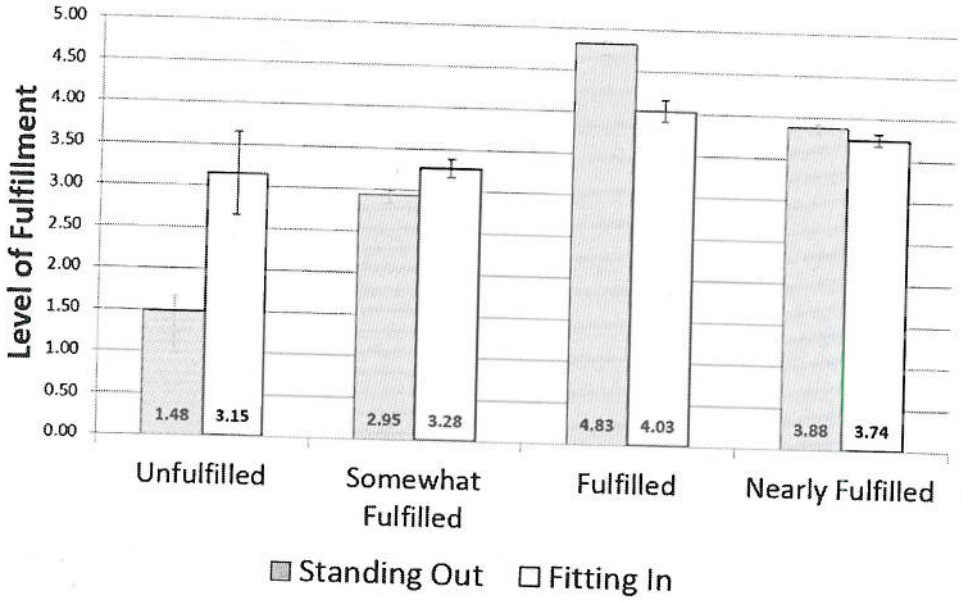

Fig. 1. Mean scores of standing out and fitting in among the groups identified in the four-profile solution. Error bars are 95% confidence intervals. Nearly Fulfilled SOFI Profile $n = 329$ (47.4%); Fulfilled SOFI Profile $n = 169$ (24.4%); Somewhat Fulfilled SOFI Profile $n = 174$ (25.1%); Unfulfilled SOFI Profile $n = 22$ (3.2%).

predictor variables to the task value and achievement emotion outcomes were also specified. No competing models were examined. Fig. 2 shows all of the direct paths, indirect paths, and covariates that are estimated in the models of task value and achievement emotions.

The Fulfilled SOFI Profile—individuals who are satisfied in terms of how much they stand out and fit in—should express greater academic identification than do other SOFI profiles. Indicator coding is used to quantify the estimated difference in task values and achievement emotions when comparing the Unfulfilled SOFI Profile, Somewhat Fulfilled SOFI Profile, or Nearly Fulfilled SOFI Profile relative to the reference category: the Fulfilled SOFI Profile. These indicator codes are used to estimate the association of profile membership with task value and achievement emotions as explained by psychological membership.

Unconditional means models (i.e., random-effects analysis of variance) facilitated our efforts to examine whether there was significant variation in the dependent variables across classrooms. Separate F tests were conducted for each outcome variable to determine whether all classroom mean scores on the dependent variable were comparable (Rabe-Hesketh & Skrondal, 2012). Intraclass correlation coefficients (ICC) are presented in Table 5. The ICC may be interpreted in one of two ways: In the case of boredom, for example, this value represents the average correlation for boredom among students in the same classroom. Stated another way: approximately 12% of the total variability in boredom may be attributed to differences in ratings of boredom across classrooms. There was significant variation in task value outcomes and achievement emotion outcomes across classrooms, with the exception of anxiety. Among the outcomes with significant classroom variation, the percentages of variance occurring between classrooms ranged from 5% (utility value and hopelessness) to 12% (boredom).

Goodness of fit indices, including RMSEA and the within-model standardized root mean square residual ($SRMR_{within}$) (Preacher et al., 2010), along with the chi-square statistic, were used to assess technical adequacy. Models were also evaluated on the proportion of variance in the dependent variables that were accounted for, as well as the extent to which the Monte Carlo confidence intervals for the indirect associations of interest included zero.

Table 4
Multinomial logistic regression: associations between student demographic characteristics on level-1 latent class solution.

	Comparing Profile 1 with Profile 4			Comparing Profile 2 with Profile 4			Comparing Profile 3 with Profile 4		
Level-1 predictor	*OR*	95% CI Lower bound	95% CI Upper bound	*OR*	95% CI Lower bound	95% CI Upper bound	*OR*	95% CI Lower bound	95% CI Upper bound
Male	0.82	0.29	2.31	0.89	0.65	1.22	1.00	0.74	1.37
Free/reduced lunch	1.41	0.56	3.54	**1.71**	**1.03**	**2.82**	1.01	0.64	1.61
Ethnic minority	**3.54**	**1.31**	**9.55**	**1.78**	**1.13**	**2.80**	1.33	0.84	2.10
Grade level	1.28	0.80	2.05	0.95	0.75	1.21	0.93	0.74	1.17

Note. *OR* = Odds Ratio. Statistically significant coefficients are boldfaced. Profile 1 Name: Unfulfilled SOFI Profile; Profile 2 Name: Somewhat Fulfilled SOFI Profile; Profile 3 Name: Fulfilled SOFI Profile; Profile 4 Name: Nearly Fulfilled SOFI Profile.

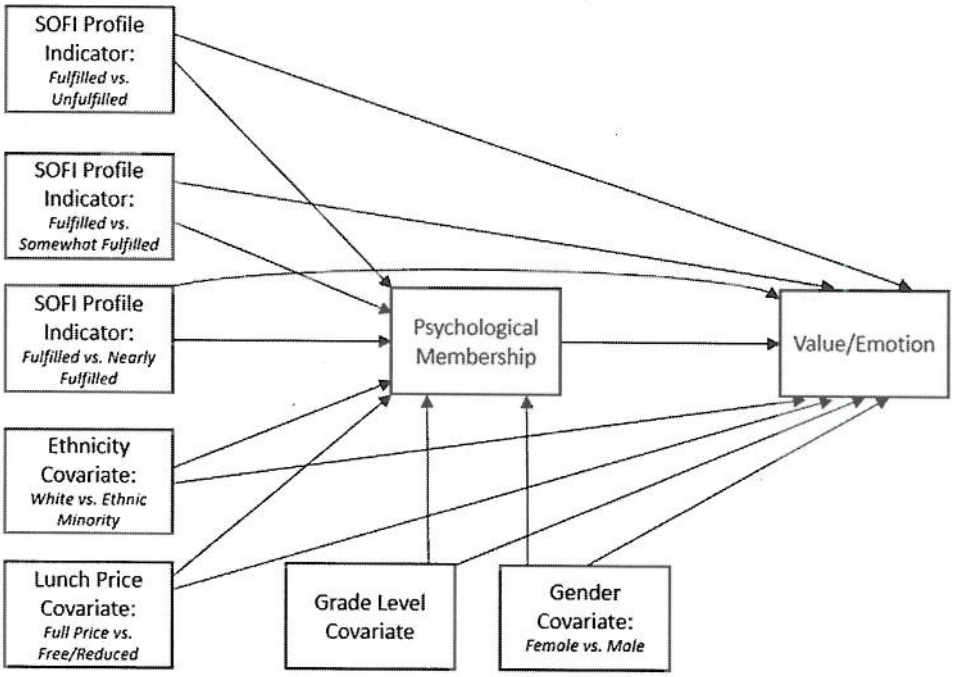

Fig. 2. Model serves as a guide to all multilevel path analysis results. Figure displays all paths direct paths, indirect paths, and covariates that were included in the estimation of task value and achievement emotions.

3.4. Task value

The multilevel path model linking SOFI profile membership to task value via psychological membership demonstrated acceptable fit ($\chi^2_{(88)} = 177.28$, $p < 0.001$, RMSEA = 0.056, SRMR $_{within} = 0.012$). Fig. 3 displays unstandardized coefficients and standard errors for the hypothesized pathways at the within-group level. The coefficients on the left side of the figure represent the regression of the mediator variable on the SOFI profiles. In all cases, students in the Fulfilled SOFI Profile expressed greater psychological membership than did students in the Unfulfilled SOFI Profile ($b = -0.57$, $SE = 0.17$, $p < 0.001$), the Somewhat Fulfilled SOFI Profile ($b = -0.38$, $SE = 0.11$, $p < 0.001$), and the Nearly Fulfilled SOFI Profile ($b = -0.24$, $SE = 0.10$, $p < 0.01$). The coefficients on the right side of the figure represent the regression of each task value dependent variable on the mediator, controlling for the direct effects of the SOFI profile indicator variables on each outcome. Psychological membership significantly predicted greater intrinsic value ($b = 0.82$, $SE = 0.07$, $p < 0.001$), greater attainment value ($b = 0.65$, $SE = 0.05$, $p < 0.001$), and greater utility value ($b = 0.73$, $SE = 0.07$, $p < 0.001$).

Results in Table 6 support the prediction that SOFI is related to greater task value by way of greater psychological membership. Relative to the Unfulfilled SOFI Profile, students in the Fulfilled SOFI Profile are more likely to express stronger psychological membership. In turn, greater psychological membership is associated with greater intrinsic value (Indirect Effect = −0.47, 95% Monte Carlo CI [−0.73, −0.21]), attainment value (Indirect Effect = −0.37, 95% Monte Carlo CI [−0.59, −0.16]), and utility value (Indirect Effect = −0.42, 95% Monte Carlo CI [−0.68, −0.18]). This pattern also is present when comparing the Somewhat Fulfilled SOFI Profile to the Fulfilled SOFI Profile. Students in the Fulfilled SOFI Profile expressed greater intrinsic value (Indirect Effect = −0.31, 95% Monte Carlo CI [−0.51, −0.12]), attainment value (Indirect Effect = −0.24, 95% Monte Carlo CI [−0.41,

Table 5
Intraclass correlation coefficients for outcome variables.

	$Var(u_{0j})$	$Var(r_{ij})$	ICC
Intrinsic value	0.23***	2.16	0.10
Attainment value	0.15***	1.30	0.10
Utility value	0.14*	2.55	0.05
Enjoyment	0.09***	0.91	0.09
Pride	0.07**	0.99	0.06
Boredom	0.15**	1.13	0.12
Shame	0.01	0.77	0.01
Hopelessness	0.04*	0.75	0.05
Anxiety	2.56×10^{-19}	0.69	0.00

Note. All unconditional means models (i.e., random effects analysis of variance) revealed that classrooms varied significantly on each outcome variable, except for anxiety ($p > 0.05$) and shame ($p > 0.05$). Asterisks indicate statistically significant coefficients, where *$p < .05$; **$p < .01$; ***$p < .001$.

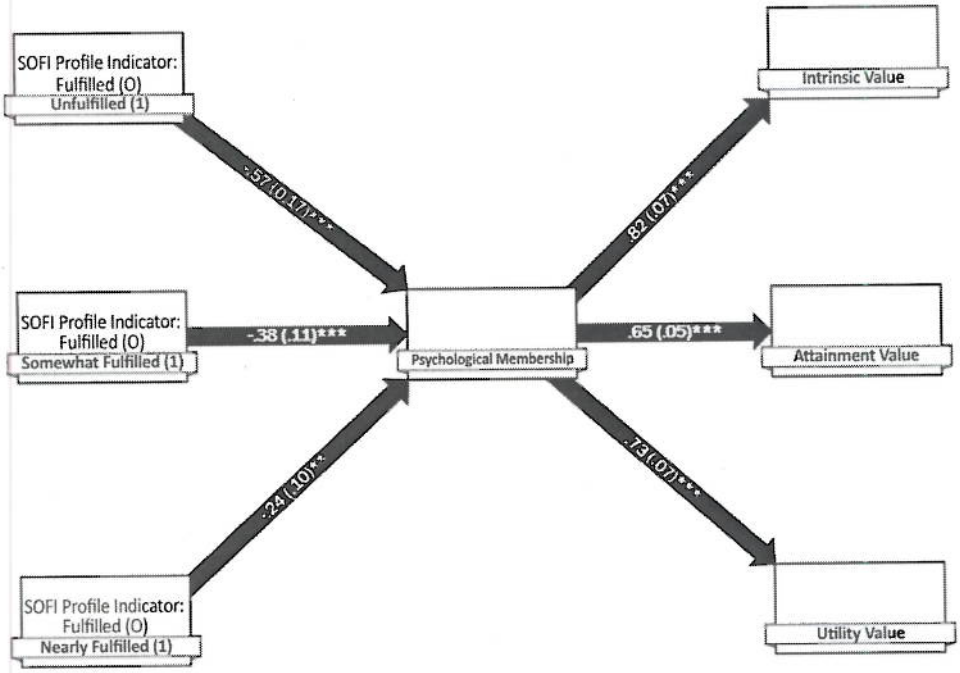

Fig. 3. Multilevel path analysis in which SOFI profiles are indirectly associated with each task value dependent variable by way of psychological membership. Unstandardized estimates and standard errors in this model accompany the indirect effects and direct effects presented in Table 6. Given the number of outcomes examined, a Bonferroni adjustment was used to set a more conservative alpha level of 0.017 (i.e., 0.05/3). Model covariates (free/reduced lunch, ethnic minority, gender, and grade level) are omitted from this visual representation for simplicity.

−0.10]), and utility value (Indirect Effect = −0.28, 95% Monte Carlo CI [−0.47, −0.11]) than did students in the Somewhat Fulfilled SOFI Profile by way of greater psychological membership. In addition, the anticipated indirect effect was significant for the Nearly Fulfilled SOFI Profile (versus Fulfilled SOFI Profile) on intrinsic value (Indirect Effect = −0.19, 95% Monte Carlo CI [−0.37, −0.04]), attainment value (Indirect Effect = −0.15, 95% Monte Carlo CI [−0.29, −0.03]), and utility value (Indirect Effect = −0.17, 95% Monte Carlo CI [−0.34, −0.03]).

When controlling for the indirect pathway of SOFI profiles on task value via psychological membership, there were no significant direct effects of the SOFI profile indicator variables on task value (Table 6). In terms of student background characteristics, females reported significantly higher psychological membership than did males ($b = -0.33$, $SE = 0.07$, $p < 0.001$) as well as higher intrinsic motivation ($b = -0.64$, $SE = 0.12$, $p < 0.001$), attainment value ($b = -0.53$, $SE = 0.10$, $p < 0.001$), and utility value ($b = -0.67$, $SE = 0.11$, $p < 0.001$); no other covariates (i.e., lunch price, ethnicity, or grade level) were significantly associated with psychological membership or task value.

Proportion of variance accounted for was assessed by estimating the reduction in residual variance from a base model (i.e., no predictors) to a fitted model (with predictors of interest). Overall, the model linking SOFI profile membership to task value via psychological membership explained 25% of the within-group variance in task value (Level-1 $R^2 = 0.25$; $\sigma^2_{w\ Base} = 2.16$; $\sigma^2_{w\ Fitted} = 1.62$), 28% of the within-group variance in attainment value (Level-1 $R^2 = 0.28$; $\sigma^2_{w\ Base} = 1.30$; $\sigma^2_{w\ Fitted} = 0.93$), and 18% of the within-group variance in utility value (Level-1 $R^2 = 0.18$; $\sigma^2_{w\ Base} = 2.55$; $\sigma^2_{w\ Fitted} = 2.08$).

3.5. Achievement emotions

The multilevel path model linking SOFI profile membership to achievement emotions via psychological membership also demonstrated acceptable fit ($\chi^2_{(93)} = 256.97$, $p < 0.001$, RMSEA = 0.050, $SRMR_{within} = 0.011$). Fig. 4 displays unstandardized coefficients and standard errors for the hypothesized pathways at the within-group level. As with the model of task value, students in the Fulfilled SOFI Profile expressed greater psychological membership than did students in other profiles. Psychological membership predicted higher positive achievement emotions and lower negative achievement emotions. Specifically, psychological membership was associated with greater enjoyment ($b = 0.71$, $SE = 0.04$, $p < 0.001$) and pride ($b = 0.64$, $SE = 0.03$, $p < 0.001$) as well as less boredom ($b = -0.55$, $SE = 0.04$, $p < 0.001$), hopelessness ($b = -0.24$, $SE = 0.06$, $p < 0.001$), and shame ($b = -0.13$, $SE = 0.04$, $p < 0.001$).

Results displayed in Table 6 support the prediction that SOFI is related to greater achievement emotions by way of greater psychological membership. Relative to the Unfulfilled SOFI Profile, students in the Fulfilled SOFI Profile are more likely than students in any other SOFI profile to express stronger psychological membership. In turn, greater psychological membership is associated

Table 6
Indirect and direct effects of SOFI profile membership on task values and achievement emotions as mediated by psychological membership.

	Indirect effect	95% CI Lower	95% CI Upper	Direct effect	95% CI Lower	95% CI Upper
DV: Intrinsic value						
Unfulfilled	**−0.47**	**−0.73**	**−0.21**	−0.54	−1.19	0.03
Somewhat Fulfilled	**−0.31**	**−0.51**	**−0.12**	−0.09	−0.35	0.17
Nearly Fulfilled	**−0.19**	**−0.37**	**−0.04**	−0.01	−0.31	0.29
DV: Attainment value						
Unfulfilled	**−0.37**	**−0.59**	**−0.16**	−0.45	−0.98	0.09
Somewhat Fulfilled	**−0.24**	**−0.41**	**−0.10**	−0.20	−0.41	0.01
Nearly Fulfilled	**−0.15**	**−0.29**	**−0.03**	0.03	−0.16	0.21
DV: Utility value						
Unfulfilled	**−0.42**	**−0.68**	**−0.18**	−0.50	−1.26	0.25
Somewhat Fulfilled	**−0.28**	**−0.47**	**−0.11**	0.02	−0.29	0.33
Nearly Fulfilled	**−0.17**	**−0.34**	**−0.03**	0.15	−0.14	0.44
DV: Enjoyment						
Unfulfilled	**−0.41**	**−0.63**	**−0.19**	−0.08	−0.51	0.35
Somewhat Fulfilled	**−0.27**	**−0.44**	**−0.11**	−0.03	−0.14	0.09
Nearly Fulfilled	**−0.17**	**−0.31**	**−0.04**	0.04	−0.10	0.17
DV: Pride						
Unfulfilled	**−0.37**	**−0.58**	**−0.16**	**−0.44**	**−0.83**	**−0.06**
Somewhat Fulfilled	**−0.24**	**−0.39**	**−0.10**	−0.16	−0.37	0.04
Nearly Fulfilled	**−0.15**	**−0.27**	**−0.03**	−0.07	−0.24	0.09
DV: Boredom						
Unfulfilled	**0.32**	**0.14**	**0.49**	0.09	−0.41	0.60
Somewhat Fulfilled	**0.21**	**0.09**	**0.32**	−0.15	−0.39	0.09
Nearly Fulfilled	**0.13**	**0.03**	**0.23**	−0.10	−0.32	0.12
DV: Hopelessness						
Unfulfilled	**0.14**	**0.04**	**0.28**	**0.99**	**0.60**	**1.32**
Somewhat Fulfilled	**0.09**	**0.04**	**0.15**	**0.31**	**0.11**	**0.47**
Nearly Fulfilled	**0.06**	**0.01**	**0.11**	−0.02	−0.18	0.12
DV: Shame						
Unfulfilled	**0.08**	**0.02**	**0.17**	**0.47**	**0.13**	**0.82**
Somewhat Fulfilled	**0.05**	**0.01**	**0.10**	**0.70**	**0.56**	**0.83**
Nearly Fulfilled	**0.03**	**0.01**	**0.07**	**0.28**	**0.13**	**0.42**
DV: Anxiety						
Unfulfilled	**0.04**	**0.01**	**0.09**	**0.71**	**0.23**	**1.84**
Somewhat Fulfilled	**0.02**	**0.01**	**0.06**	**0.56**	**0.42**	**0.70**
Nearly Fulfilled	0.02	−0.01	0.04	**0.21**	**0.08**	**0.34**

Note. Significant coefficients are boldfaced. The 95% confidence intervals for indirect effects are constructed based on the Monte Carlo confidence interval method using 20,000 simulated samples.

with greater enjoyment and pride in addition to less boredom, hopelessness, and shame. All indirect effects were significant in the predicted direction for each achievement emotion outcome,[1] with the exception of the indirect effects predicting anxiety, Nearly Fulfilled SOFI Profile Indirect Effect = 0.02, 95% Monte Carlo CI [−0.01, 0.04].

As shown in Table 6, all SOFI profile indicator variables were directly associated with higher shame and anxiety when controlling for their indirect effects via psychological membership. There were also significant direct effects of the Unfulfilled SOFI Profile indicator on less pride and greater hopelessness, as well as a significant direct effect of the Somewhat Fulfilled SOFI Profile indicator on greater hopelessness. In terms of student background characteristics, females reported significantly higher psychological membership than did males ($b = -0.33$, $SE = 0.07$, $p < 0.001$), in addition to greater pride ($b = -0.25$, $SE = 0.06$, $p < 0.001$) and greater shame ($b = -0.17$, $SE = 0.06$, $p < 0.01$); ethnic minority students reported greater enjoyment ($b = 0.20$, $SE = 0.08$, $p < 0.01$), greater shame ($b = 0.31$, $SE = 0.09$, $p < 0.001$), and greater anxiety ($b = 0.23$, $SE = 0.09$, $p < 0.01$); and students who received free/reduced price lunch reported greater hopelessness than did students who paid full price for lunch ($b = 0.18$, $SE = 0.08$, $p < 0.05$).

Overall, the model linking SOFI profile membership to achievement emotions via psychological membership explained 33% of the within-group variance in enjoyment (Level-1 $R^2 = 0.33$; $\sigma^2_{w\ Base} = 0.91$; $\sigma^2_{w\ Fitted} = 0.61$), 30% of the within-group variance in pride (Level-1 $R^2 = 0.30$; $\sigma^2_{w\ Base} = 0.99$; $\sigma^2_{w\ Fitted} = 0.60$), 15% of the within-group variance in boredom (Level-1 $R^2 = 0.15$; $\sigma^2_{w\ Base} = 1.13$; $\sigma^2_{w\ Fitted} = 0.97$), 16% of the within-group variance in hopelessness (Level-1 $R^2 = 0.16$; $\sigma^2_{w\ Base} = 0.75$;

[1] We also conducted multilevel path analyses without using teachers as strata. No substantive differences emerged, except that there were no statistically significant indirect effects of SOFI Profile membership predicting anxiety via psychological membership (whereas there were significant indirect effects for anxiety when teachers were used as strata).

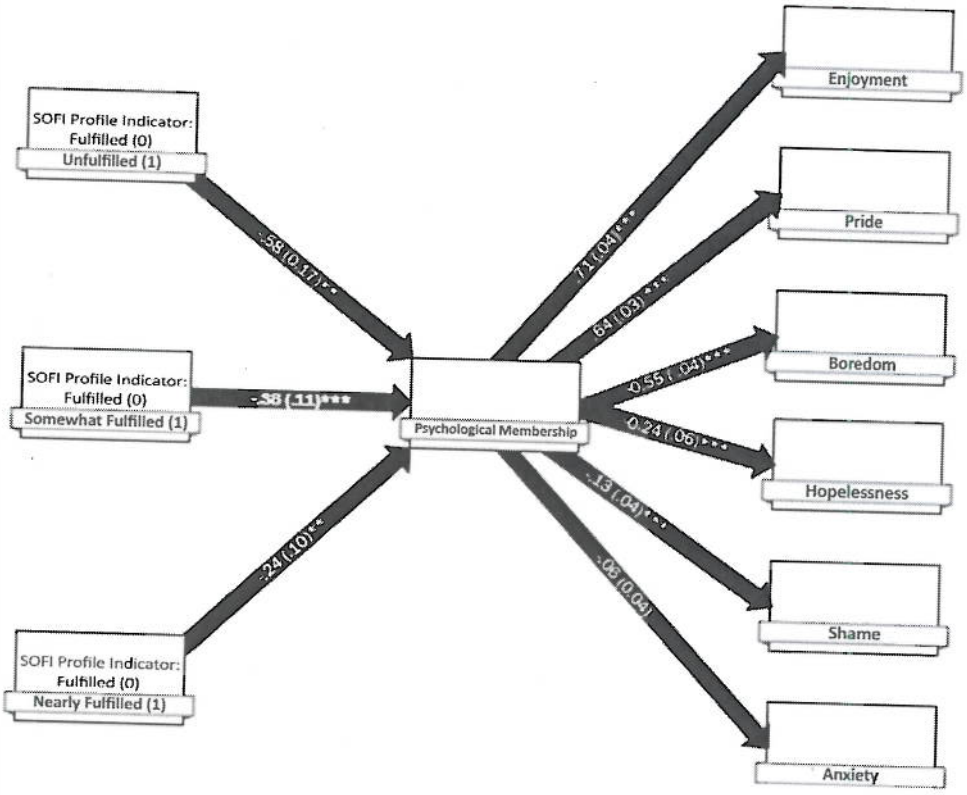

Fig. 4. Multilevel path analysis in which SOFI profiles are indirectly associated with each achievement emotion dependent variable by way of psychological membership. Unstandardized estimates and standard errors in this model accompany the indirect effects and direct effects presented in Table 6. Given the number of outcomes examined, a Bonferroni adjustment was used to set a more conservative alpha level of 0.008 (i.e., 0.05/6). Model covariates (free/reduced lunch, ethnic minority, gender, and grade level) are omitted from this visual representation for simplicity.

$\sigma^2_{\text{w Fitted}} = 0.63$), 13% of the within-group variance in shame (Level-1 $R^2 = 0.13$; $\sigma^2_{\text{w Base}} = 0.76$; $\sigma^2_{\text{w Fitted}} = 0.67$), and 12% of the within-group variance in anxiety (Level-1 $R^2 = 0.12$; $\sigma^2_{\text{w Base}} = 0.69$; $\sigma^2_{\text{w Fitted}} = 0.061$).

4. Discussion

The current investigation provides an initial examination of how SOFI predicts motivation and accompanying achievement emotions through perceptions of psychological membership. This study was the first attempt in classroom-based research to: (1) demonstrate that students' perceptions of standing out and fitting in could be measured in ways that preserve the conceptual descriptions of these constructs, and (2) assess whether students could be grouped in ways that reflect the extent to which their social identity needs are satisfied within their classrooms. Assessing SOFI ultimately facilitated the examining of hypothesized pathways to task values and achievement emotions. Importantly, the results support the theorized mediated relations of SOFI with psychological membership, and of psychological membership with class-related motivation and emotions.

4.1. Situating the present findings within contemporary discussions of social identity

Researchers have come to view the study of identity processes on achievement motivation as a critical focus for 21st-century education (Kaplan & Flum, 2009, 2012; Roeser et al., 2006). Eccles (2009) contends that "thinking of collective [or social] identities in terms of these motivational-self related beliefs provides a powerful theoretical tool for understanding how membership in particular socially defined groups influences the motivational choices people make in their lives" (p. 87). The present study supports the identity-motivation link, while also showing that SOFI may be one reason for greater social identification in the classroom.

In measuring students' SOFI judgments the present study addresses theoretical and methodological tensions within the optimal distinctiveness theory literature. Other researchers have attempted to demonstrate connections between social identity needs and psychological membership (e.g., Badea et al., 2010); but these attempts did not account for the possibility that individuals can experience the simultaneous fulfillment of standing out and fitting in. By employing a profiles-based approach, the present study

moves beyond the boundaries of prior work and more holistically captures adolescents' social identity experiences in achievement settings. In addition, some researchers believe that the desires to stand out and fit in are countervailing forces, and that humans strive to resolve the tension or conflict that exists between these social identity needs (Brewer, 1991; Brewer & Roccas, 2002). Other researchers believe social identity needs are associated (e.g., Vignoles, 2009). If it is true that a tension exists between standing out and fitting in, then one might expect such tensions to be reflected in SOFI profiles in the present study—perhaps, for example, among a group of students whose need to stand out was completely satisfied but whose need to fit in was not met, or vice versa. But this study shows that none of the emergent profiles reflected this characterization. The structure of these profiles further supports Vignoles' (2009) claim that perceptions of standing out and fitting in do not necessarily oppose one another.

Research under the scope of optimal distinctiveness theory shows that social identity needs are salient during adolescence (Bornholt, 2000). However, scholars have not directly assessed the notion of SOFI, nor have they examined SOFI's educational significance using established constructs (such as the measures of achievement motivation and emotion employed in the present study). By supporting the notion of SOFI in classrooms, this cross-sectional study lays the groundwork for subsequent investigations extending social identity research in achievement contexts.

These findings also bolster theoretical arguments regarding the importance of adolescents'" perceptions of educational institutions. Specifically, an ecological perspective on schools (Eccles & Roeser, 1999) characterizes school environments as highly influential to adolescents' healthy development and scholastic engagement from multiple levels of influence. Eccles and Roeser (2009) see classrooms as the most fundamental and immediate level of influence. They recommend that classrooms should thus provide students with choices as well as be mastery focused, rich in culturally relevant academic material, challenging, and emotionally and cognitively supportive. Within this line of work, activities that support students' needs for autonomy, competence, and relatedness (i.e., interpersonal bonds) are typically seen as vehicles for cultivating academic beliefs that are compatible with scholastic achievement (Eccles & Roeser, 2009). The present study's outcomes suggest that similar patterns might be expected in classrooms when students' desires to stand out and fit in are fulfilled.

4.2. SOFI: the function of race and free or reduced-lunch status

The present study's findings also highlight complexities involved for some students in fulfilling their social identity needs within a predominantly Caucasian, middle-class high school. Students of color and those on free or reduced-lunch systematically reported less fulfillment in terms of standing out and fitting in. Recognizing that adolescents enter classrooms from different racial and economic backgrounds is critical to advancing theory and educational practice, and should not be overlooked. An adolescent who is a member of an ethnic minority group does not necessarily stand out in class, nor will his/her desire to stand out necessarily be fulfilled. Shore et al. (2011) explain that individuals in group settings may feel like outsiders whose unique contributions are not valued by their fellow group members. Relatedly, Vignoles and colleagues (2000) explain that "without any perceived connection between self and others, no conceptual framework will be available within which to anchor one's concept of self" (p. 341). When the present study's results are considered alongside previous research, one speculative interpretation is that there may be greater barriers—both structural (e.g., denigration) and psychological (e.g., feeling excluded)—to SOFI for adolescents whose background characteristics do not match those of the overwhelming majority in the classroom. These possible barriers to SOFI warrant further consideration in future investigations on this topic.

In discussing the role of race and free or reduced-lunch status in SOFI, it is important to consider factors that would lead to the fulfillment of social identity needs. For example, standing out involves far more than voicing opinions when one's views differ from those of classmates. Work by Rios Morrison (2011) shows that ethnic minorities are more likely to voice unique opinions only on topics for which they feel a sense of legitimacy or a subjective sense of entitlement (also referred to as psychological standing). Psychological standing may originate, Rios Morrison explains, from an individual's previous experiences around an issue or from the extent to which an issue personally affects the individual. By extension, in a classroom where a student is the only one of a particular ethnic background or the only one from an economically disadvantaged community, he/she may be less inclined toward to self-expression, particularly when sharing a diverging opinion, for fear fellow classmates will consider it inappropriate or out of place. Thus, the present study's finding that students in the Unfulfilled SOFI Profile and Somewhat Fulfilled SOFI Profile expressed low levels of differentiation need satisfaction may suggest a perceived lack of opportunity structures for asserting their distinctiveness within their classrooms.

4.3. Practical considerations

School psychologists can advocate for effective instruction (Poncy, McCallum, & Skinner, 2011) and can use their understanding of students' social experiences to positively impact instructional leadership teams. Several implications in this manuscript can assist school psychologists who seek to support educators in fostering student motivation and positive affect in their day-to-day practices. The present study identifies some potential benefits of raising questions with other instructional leadership team members about structuring academic learning environments to meet the identity needs of adolescents. In line with ecological perspectives on adolescent development within school settings (Eccles & Roeser, 1999), school psychologists could strategize with teachers on how to create opportunity structures for students to stand out and fit in so as to foster adolescents' achievement motivation and well-being. To create such structures, teachers might consider reframing students' perceptions of engaging in scholastic activities so that they see the social benefits. Prior work by Gray and colleagues demonstrates that students persist

longer and perform better on achievement tasks when they view these tasks as helpful for potentially satisfying their desires to stand out and fit in (Gray & Rios, 2012). Taken together with prior research, the present study suggests that adolescents act in service of satisfying their own desires to stand out and fit in; but the ownership they take in fulfilling their own needs must be matched by opportunities to do so within their academic environments.

School psychologists also can help teachers see new ways for students to participate in class that are harmonious with their life experiences (Roeser et al., 2006). Teachers can serve as "social facilitators" whose efforts foster a supportive classroom climate; and through teachers' instructional practices, students from various backgrounds may feel more invited to express themselves (Ladson-Billings, 1995). This practical consideration is especially relevant in the present study, given that students of color and those on free or reduced lunch were overrepresented in the Unfulfilled SOFI Profile and the Somewhat Fulfilled SOFI Profile. By training, school psychologists are uniquely poised to assess the educational impact of recommended instructional practices within their local school environments. Thus, by using student data from their school to guide instructional leadership conversations with faculty and staff (Poncy et al., 2011), school psychologists can play a vital role in creating socially responsive learning contexts, where students from all backgrounds want to be and want to learn.

4.4. Limitations and future directions

A few considerations must be acknowledged when interpreting this initial investigation of SOFI needs and psychological membership in the classroom. First, data collected in the present study reflect a concurrent design. Although the mediation models tested in the present study are firmly grounded in theory, the design of the present study restricts the discussion of a causal link between these variables in the present analysis. Readers therefore are urged to interpret the results of this investigation with care. These findings should serve as the basis for future work that seeks to replicate and extend the current findings in ways that may yield more definitive implications for policy and practice. The important theoretical questions raised in this investigation should therefore serve as a supplement to, not as a replacement for, experimental research. Also, testing causality in an experimental fashion demonstrates that one variable could cause the other; yet it is also possible that effects of two variables are reciprocal. In this light, future research should examine the complex ways in which motivation, emotions, and identity formation processes are intertwined, as the present study does not empirically demonstrate directionality or causality. Moreover, extending beyond psychological outcomes to behavioral and performance outcomes (e.g., effort, engagement, academic performance) is critical to underscoring the applied significance of this line of work in the daily lives of education practitioners. Examining such questions over the course of an academic year, or over several years, is an important step in addressing questions of directionality that arise from the present investigation.

Second, the causal claims of the present study could have been strengthened by experimentally frustrating high school students' desires to stand out and fit in; but this experimental design would come at the cost of inducing psychological discomfort. The use of self-report measures in the present study therefore facilitated examining the theoretical and practical importance of SOFI needs in achievement contexts, where the experimental manipulation of students' SOFI needs would, in some cases, be unsuitable. The present findings demonstrated that students experienced less anxiety when their SOFI needs were fulfilled. Items assessing students' perceptions of standing out and fitting in also were empirically distinguishable, and the internal consistency of these measures was acceptable. However, the process of validating measures cannot be fully captured in a single investigation.

Classmates presumably respond to an individual based on his/her role(s) (e.g., athlete, achiever, bully, nerd, Goth, class clown), and based on his/her classroom behavior (e.g., contributing novel ideas during group work, expressing hostility toward classmates). For example, prior work demonstrates that high school students employ a number of strategies in order to maintain or satisfy their desires for distinctiveness and similarity; these strategies range from achievement (e.g., being academically on task) to interpersonal behavior (e.g., telling jokes) to self-expression (physical appearance) (Gray, Hensley, Chang, & Frick, 2014). Roles, classroom behaviors, and classmates' perceptions have social implications for a student's classroom experience; and these nuances should be investigated to advance this line of research. The rationale and importance of such future work is evidenced by the linkages between SOFI and motivation and emotions found in the present study. Future work should therefore identify empirically distinct subdimensions that speak to specific types of ways students experience standing out and fitting in at school, and should employ more formal cognitive interviewing procedures that provide further insight into students' perceptions of standing out and fitting in.

4.5. Conclusion

Adolescents' patterns of productivity and emotional development are rooted in their psychological reactions to their classroom contexts (Turner & Meyer, 2000). Two such reactions, which appear to be complementary, involve viewing classroom environments as places in which one's desires for distinctiveness and similarity are satisfied and not thwarted. This study shows that standing out while fitting in is related to adolescents' perceptions of psychological membership, their motivation, and their positive emotions in classrooms.

Each student brings a distinct set of qualities, ideas, and strengths into the classroom. Teachers' approaches to instruction are rooted in their conceptions about students from different backgrounds, as well as their beliefs about serving in classrooms where these students come to learn (Kumar, Karabenick, & Burgoon, 2014). Students' desires for distinctiveness may serve as leverage for teachers seeking to cultivate positive dispositions toward scholastic achievement. In addition to facilitating students' efforts

to fit in, this study emphasizes the applied significance of capitalizing on student distinctiveness and helping students understand the contribution they make to the classroom environment simply by being themselves.

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