

Profiles of Motivation for Reading  
Among African American and Caucasian Students

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Abstract

Previous research has investigated motivations for reading by examining positive or affirming motivations including intrinsic motivation and self-efficacy. Related to them, we examined two negative, or undermining, motivations consisting of avoidance and perceived difficulty. We proposed that the motivations of intrinsic motivation and avoidance are relatively independent, and thus, can be combined to form meaningful profiles consisting of: avid, ambivalent, apathetic, and averse readers. With Grade 5 students we found that these motivations were relatively independent for both Caucasian and African American students. The two motivations uniquely explained a significant proportion of variance in reading comprehension and other cognitive reading variables. Although intrinsic motivation correlated higher with achievement than avoidance for Caucasians, avoidance correlated higher with achievement than intrinsic motivation for African Americans. For both groups, the profile of avid readers showed higher reading achievement than the other profiles.

Profiles of Motivation for School Reading  
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*Introduction*

Education for reading has typically placed a priority on reading achievement. An equally important aim of reading education is to foster the growth of “lifelong reading”. In fact this phrase is central to the mission statement of the International Reading Association. This goal is partly cognitive because lifelong readers have to be capable of performing reading tasks. More vital to this aim, however, is motivation. Lifelong readers want to read for a suite of purposes embracing experience, aesthetics, knowledge, and utility.

Although teachers or teacher educators rarely deny this motivational aim, it is too often neglected in research, theory, practice, and teacher education in the area of reading. This study addresses motivation forthrightly because we believe we need basic, empirically verified knowledge of how students are motivated in order to improve teaching and classroom contexts for reading development. We also believe that the evidence shows that motivation is a powerful contributor to reading achievement as well as to the disposition and commitment to reading for a range of personal and societal benefits (Mazzoni, Gambrell, & Korkeamaki, 1999).

This study investigates four motivations that are examined individually and are also configured into profiles of reading for individual students and subgroups. Profiles refer to combinations of motivations that describe students as avid, ambivalent, apathetic and averse in their approach to reading. We investigate the contributions of the individual motivations and the motivational profiles to achievement in reading comprehension and word reading.

We explicitly investigated African American and Caucasian students because these students clearly experience diverse cultural, social, and academic environments. To the degree

that these varying environments give rise to distinctive motivations and motivational profiles, we suggest that these ethnic groups each merit their own attention. We believe that teaching that optimizes the school experience, achievement, and lifelong reading development of students from diverse ethnic groups may need to be adapted for individuals according to their motivation profiles.

### *Affirming and Undermining Motivations*

Much of the recent work on children's motivation and its relations to school achievement has focused on a constellation of motivational constructs focused broadly on students' perceptions of competence or efficacy, intrinsic and extrinsic motivation for learning, and goals and values for achievement (Linnenbrink & Pintrich, 2003; Guthrie, Hoa, et al, 2007). Research investigating these variables has shown that students who are more positively motivated have strong beliefs in their competence in different tasks, are intrinsically motivated to learn, and have clear goals for achievement. Students with lower motivation for achievement often are characterized as lacking or being relatively low on these different characteristics. In their discussion of motivation for reading, Guthrie and Wigfield (2000) focused on students' efficacy for reading, intrinsic motivation for reading, and reading goals as crucial influences on reading motivation. They also included social motivation in their discussion of important constructs. High achieving readers were portrayed as possessing one or more of these positive reading motivations, and indeed, research shows positive correlations of these motivational attributes and reading achievement. Lower achieving readers were represented as lower on one or more of these four motivational variables and thus, were characterized as relatively unmotivated to read.

Although work on these motivational constructs captures important differences between more and less positively motivated students, we do not believe that this work fully captures the

nature of negative or undermining motivations for reading. First, students with lower motivation on conventional measures of motivation are heterogeneous. Simply describing them as low on one or more of the motivational variables just described does not fully capture the nature of their motivation. Second, additional constructs are likely needed to describe these students' motivation. Some of these constructs have been discussed to an extent in the current motivation literature. For instance, self-determination theorists (Ryan & Deci, 2000) described a motivation continuum from amotivation to intrinsic motivation; amotivation representing an unmotivated state. Some goal orientation theorists have defined and measured work avoidance as a goal of some students; such students are motivated to avoid doing their schoolwork rather than to engage in it (Meece & Holt, 1993). Brophy (2004) and others discussed students who were apathetic about learning, which means they de-valued learning and did not engage in learning activities. Although these constructs have received some discussion in the literature, research on them is sparse compared to research on other motivation constructs.

This study draws on the theoretical framework of multiple goals in motivation (Pintrich, 2000). In articulating this view, Barron & Harackiewicz (2001) state that motivation theories should account for the many motivational goals that students may hold. They suggest that multiple goals are relevant to achievement and should be simultaneously utilized to characterize motivation in explaining achievement. We apply this view to addressing the roles of motivation in reading achievement.

In this study, we investigated aspects of motivation that have been identified as contributing to positive achievement motivation in students, and aspects that reduce or undermine their motivation in the domain of reading. We attempted to determine the extent that undermining motivations, such as avoidance, contribute to explained variance in reading

achievement beyond the contributions of affirming motivations, such as intrinsic motivation. We did similar analyses for another pair of positive and negative motivations, self-efficacy and perceived task difficulty. We investigated possible profiles of reading motivation by combining high and low levels of intrinsic motivation and avoidance and examining how they relate to a number of different indicators of reading comprehension. Finally, we examined the extent that African American and Caucasian students vary in their motivation, motivational profiles, and in how their motivations relate to their reading comprehension. We turn next to a more detailed discussion of the motivational constructs we studied, beginning with those constructs often associated with positive motivation.

Intrinsic motivation for reading can be defined as the enjoyment of reading activities for their own sake, which is consistent with the formulation in self-determination theory as espoused by Ryan and Deci (2000). Intrinsically motivated reading consists of text interaction for enjoyment, to satisfy curiosity, and to gain the rewards of vicarious adventure or gaining new knowledge that may be challenging. Intrinsic motivation has been correlated to reading achievement on standardized tests by several investigators for elementary school students (Gottfried, 1990; Baker & Wigfield, 1999) and middle school students (Unrau & Schlackman, 2006; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005).

Students' self-efficacy can also contribute positively to students' motivation. Within social cognitive theory (Bandura, 1977), "self-efficacy refers to beliefs about an individual's capabilities to learn or execute behaviors at identified levels" (Schunk, 2003, p. 161). Efficacious students participate more readily, work harder, persevere longer in the face of difficulties, and achieve at higher levels. Thus, efficacious readers believe they are capable of performing reading

activities and are willing to attempt more challenging texts. However, students with high efficacy may not perform well on tasks if their actual abilities do not match their perceptions and beliefs.

Self-efficacy for reading has been operationalized as students' perceptions of competence in reading, which refer to beliefs regarding ability and skill in reading tasks (Chapman & Tunmer, 1995). Research on student perceptions of competence in reading has revealed a positive association with reading comprehension for fourth- and fifth- grade students (Chapman & Tunmer, 1995). In addition, students reporting higher levels of perceived competence obtained higher reading comprehension scores than those students with lower levels of perceived competence (Chapman & Tunmer, 1995; Wigfield & Guthrie, 1997).

We focus on two undermining aspects of motivation that characterize students with less positive motivation to achieve in reading and contrast them with the positive motivations just discussed. The first aspect is avoidance, which contrasts with intrinsic motivation. The behavioral attributes of avoidance include students evading reading tasks and circumventing text interaction as frequently and completely as possible. Students who are avoidant may fake reading in school, neglect homework that requires text interaction, and escape situations in which reading is required. These behaviors are goal-directed, according to self-reports of students in interview studies (Dowson & McInerney, 2001). Consistent with these behaviors, avoidant reading motivation is typified by negative affect. Students who avoid reading dislike books, find texts boring, and may report that reading processes are literally painful (Dahlen, Martin, Ragan, & Kuhlman, 2004).

Among secondary students, a frequent reason for avoiding reading is that the texts appear to be irrelevant to their lives and meaningless because they cannot relate to them personally (Assor, Kaplan, & Roth, 2002; Seifert & O'Keefe, 2001). It is evident that avoidant motivation is

negatively correlated with reading achievement for elementary school students (Wigfield & Guthrie, 1997; Meece & Miller, 2001). Reading avoidance is associated with students' disengagement from classwork, as indicated by paying little attention to text, not interacting with the content, and experiencing anxiety or anger if they are compelled to perform academic activities (Assor, Kaplan, & Roth, 2002).

Although they were not expressly anchored in reading activities, several studies have documented the attributes of avoidance motivation for schoolwork. For example, Yair (2000) showed that avoidance may include a shift of attention away from books and academic work onto oneself or other individuals in the school setting. As Dowson and McInerney (2001) illustrated, avoidance is frequently accompanied by non-thinking and non-strategic studying. Under these conditions, it is reasonable that avoidance will be negatively correlated with achievement (Meece & Holt, 1993; Shim & Ryan, 2005; Sideridis, 2003). Several investigators reported that avoidance of reading is an explicit goal for students, consisting of shunning books and escaping reading activities (Skaalvik, 1997) and attempting to minimize effort on reading activities (Brdar, Rijavec, & Loncaric, 2006). Work-avoidant students are typically oriented to low effort and procrastinating to escape academic work (Middleton & Midgley, 1997; Turner, Thorpe, & Meyer, 1998). They attribute failure to low ability (Covington & Omelich, 1985), and often report test anxiety and negative affect toward achievement activities (Pekrun, Elliot, & Maier, 2006).

Avoidance motivation in reading is aligned with the construct of task avoidance, in which students evade text interactions. This is not the same as performance avoidance, which refers to the student's "goals directed toward eluding normative incompetence," which prevent himself from appearing foolish (Elliot & Church, 2003, p. 373). Although the reading-avoidant

individual may have some performance-avoidance tendencies, it is the actual text that is being shunned, not only the appearance of incompetence with the text. The negative affect of the reading-avoidant individual is focused on the text and the activity of interacting with text. It is not focused primarily on the reaction of peers, teachers, or family on their ability to read text. A substantial number of reading-avoidant individuals are, in fact, competent readers (Seifert & O'Keefe, 2001).

When investigators interview or observe students in naturalistic environments to characterize the affects and behaviors of young adolescents toward reading, the predominant outcome of their observations is that these students avoid school reading (Alvermann et al., 2007; Dowson & McInerney, 2003; Smith & Wilhelm, 2002; Franzak, 2006). In interviews, students claim the following:

- (a) the school texts are not interesting (Ivey & Broaddus, 2001),
- (b) their friends do not read school materials frequently (Moje & Young, 2000),
- (c) the tasks are irrelevant to them (Smith & Wilhelm, 2002),
- (d) peers they identify with are not proficient readers (Taylor & Graham, 2007),
- (e) reading conflicts with their social goals and norms (Dowson & McInerney, 2003).

When these behaviors appear in ethnic minorities, such as African Americans, they have been interpreted as reflecting an oppositional stance toward schooling due to a history of discrimination (Ladson-Billings; 2002; Ogbu, 2003). However, the salience of this avoidant reading motivation has not been addressed frequently, theoretically or empirically, in quantitative investigations.

The second undermining aspect of motivation is students' perceptions of the difficulty of reading tasks, and it can be contrasted with self-efficacy. In several studies, Chapman and

Tunmer (1995) illustrated that when students believe that reading is difficult, they are likely to have negative affects toward reading, which in turn, are likely to lead to reading avoidance.

Importantly, perceived difficulty was negatively correlated with reading achievement for primary students. In a complementary finding, Seifert and O'Keefe (2001) reported that students who perceived tasks to be difficult were likely to be work avoidant in the sense of minimizing effort and reducing the necessary activities to maintain a minimally acceptable grade. Therefore, when students believe that reading tasks are troublesome and difficult to handle, they are unlikely to approach them positively. Thus, perceived task difficulty likely relates negatively to students' reading comprehension, whereas reading self-efficacy should relate positively to reading comprehension.

### *Profiles of Reading Motivation*

In this study, we examined whether these pairs of motivation constructs (intrinsic motivation and avoidance; self-efficacy and perceived difficulty) were distinct constructs, rather than being opposite ends of a continuum. We did this by factor analyzing students' responses to measures of the four constructs. If each pair formed a continuum, then the items measuring each pair would load on one factor. If they were distinct, then there would be two factors for each pair. We predicted that the constructs would be factorially distinct.

We further investigated intrinsic motivation and avoidance motivation by creating differing profiles of intrinsic and avoidant motivation for reading (Guthrie and Coddington, in press). These two motivational constructs can be combined in a 2 X 2 design to form profiles of students. We built composites of high and low intrinsic reading motivation and high and low reading avoidance, consisting of the following: (1) avid readers—high intrinsic, low avoidance; (2) ambivalent readers—high intrinsic, high avoidance; (3) apathetic readers—low intrinsic, low

avoidance; (4) averse readers—low intrinsic, high avoidance. We then examined how these different profiles related to students' achievement in reading. Due to space limitations we did not construct analogous profiles for self-efficacy and perceived task difficulty in reading, although such profiles could be created. However, as noted earlier, we did examine whether these variables were factorially distinct. We also examined how each variable separately and jointly predicted students' reading comprehension. We predict that reading self-efficacy predicts comprehension positively and perceived task difficulty in reading predicts comprehension negatively.

Creating student profiles has been productive in constructing subsets of motivation that are associated with achievement. For example, students with a profile of high reading interest and moderate levels of other motivation constructs showed significantly more growth in reading than a profile of low overall motivation, and a profile of increasing efficacy and involvement in reading showed intermediate growth (Guthrie, et. al., 2007). Furthermore, profiles of high-low mastery and high-low performance goals in college students formed four independent constructs in a confirmatory factor analysis, showing relative independence of these theoretical variables (Witkow & Fuligni, 2007). It is possible to form profiles empirically, using latent profile analysis, or cluster analysis (Pastor, Barron, Miller, & Davis, 2007). However, this procedure does not fulfill our intention of attempting to identify students with sharp distinctions on the theoretical variables. In this study, therefore, we created groups of students who were high and low in both intrinsic motivation and reading avoidance, based on their responses to our measures of those motivations.

The first group, *avid readers*, consists of students who have reading interests, enjoy reading in school and out of school, and who do not avoid school reading. They claim that they

are committed to completing school reading. Avid readers have both the satisfaction of being intrinsically motivated for reading and the commitment and self-discipline to not be an irresponsible student who neglects or is indifferent to school reading. In self-determination theory terminology, this student has attributes of the intrinsically motivated reader, and these constructs are known to correlate for secondary students (Otis, Grouzet, & Pelletier, 2005). This group of students will likely have the strongest reading comprehension.

The *ambivalent readers* have a profile of possessing intrinsic motivation for some texts, but not for others. In the qualitative research literature, a number of studies reported that some students read frequently and deeply in non-school contexts, while eschewing school reading (Alvermann & Hagood, 2000; Landis & Moje, 2003). These students may have reported that they are intrinsically motivated to read computer games, instant messages, electronic mail, and certain magazines. However, they may shun school textbooks, novels, or information books. Thus, these students' avoidance of reading is also high for some kinds of reading. Although they may circumvent school assignments, ambivalent readers may interact with out-of-school texts frequently. How well they achieve in traditional school reading tasks and academic writing, however, has not been closely examined quantitatively. Smith and Wilhelm (2002) reported examples of many ambivalent reading students, including "Bam," an African American high school student in an urban school. Although neither a high achiever nor an engaged reader, Bam had read Steinbeck's (1981) *Of Mice and Men* multiple times because his brother had given it to him. He regularly engaged in email communications with his family and wrote raps and poetry in his free time. However, he explicitly avoided reading and writing activities at school.

The profile of *apathetic readers* consists of students who are low on the intrinsic reading construct, and low on the avoidance of reading. These students do not have sustainable reading

interests, yet do not claim they avoid school reading. Brophy (2004) suggested that “apathetic students are uninterested, or even alienated, from school learning,” [which represents] “the ultimate motivational problem facing teachers” (p. 307). In Brophy’s view, there are two sources of reading avoidance: apathy and alienation. We suggest, however, that apathy and alienation represent independent constructs. A student may be apathetic, with the attributes of indifference or disinterest. The apathetic reader experiences boredom, lack of interest, and indifference to schoolbooks and other texts. Because the apathetic reader is not avoidant, she may be induced to perform a reading activity through a strong, external incentive. For example, if the individual is threatened with failing a class or being suspended from school, she will avoid this punishment by performing the necessary reading activities and tasks minimally. However, this external inducement does not increase intrinsic motivation for reading, and reading remains a source of boredom (Smith & Wilhelm, 2002).

The profile of *averse readers* is composed of students who are low on intrinsic reading motivations and high on avoidant reading motivations. These students are actively opposed to most kinds of reading, and possess very few reading interests. Some of these students are functionally literate, reading such documents as bus schedules, the occasional magazine, and job applications. However, this limited reading does not confer substantive knowledge, aesthetic experience, or educational benefits, such as qualifications for advanced schooling. Due to their avoidance and low interest, these students are likely to be quite low in reading comprehension (Legault, Green-Demers, & Pelletier, 2006).

#### *Ethnic Differences in Reading Motivation Profiles*

Another important issue addressed in this study is possible ethnic differences in children’s reading motivation. Relatively few studies in the reading area have examined the

relationship between motivation and ethnicity (Taylor & Graham, 2007; Unrau & Schlackman, 2006). In one such study, for African American and Caucasian students (Baker & Wigfield, 1999), a measure of reading avoidance correlated negatively with CTBS reading scores, and measures of involvement in reading and preference for challenge in reading related positively. For Caucasian students only, self-efficacy, competition in reading, and reading compliance also related positively to CTBS scores. On a project-developed reading performance measure, none of the motivation variables related for the African American students, whereas several variables did relate for the Caucasian students. Similarly, research has demonstrated that intrinsic motivation is not a significant predictor of reading achievement for Latino middle school students (Unrau & Schlackman, 2006). This research suggests that ethnic minority students may value and/or express achievement motives differently from their Caucasian peers (Taylor & Graham, 2007). In view of these findings, we were interested in examining whether the proposed motivational profiles are consistent for African American and Caucasian students, with respect to the nature and levels of these students' motivation, their motivational profiles, and the relations of their motivation to their reading comprehension.

### *Research Questions*

The questions of this investigation are presented as follows:

1. To what extent are intrinsic motivation and avoidant motivation distinct constructs in reading for both African American and Caucasian students? In addition, to what extent are self-efficacy and perceived difficulty distinct constructs in reading for African American and Caucasian students? It is possible that these motivational constructs are essentially two sides of the same coin in the sense that they represent positive and negative ranges on a scale of the same construct. In this case, they will load on the same factor in a factor analysis. However, it is also

possible that these two constructs have unique characteristics that lead them to form separate factors empirically, and thus, have theoretically distinctive roles in reading. Furthermore, it is possible that the two constructs are distinct in both groups we are studying, but it also is possible that they are distinct in one group but not the other group.

2. To what extent can intrinsic motivation and avoidant motivation combine to predict achievement more fully than either one in isolation, and are the predictive relations similar for African American and Caucasian students? In addition, to what extent can self-efficacy and perceived difficulty combine to predict achievement more fully than either one in isolation, and are the predictive relations similar for African American and Caucasian students? To the degree that the two constructs are distinct conceptually and empirically, they may be combined in a multiple regression to predict achievement more highly than either one in isolation. However, if they are not independent, or if one is much stronger in association with achievement, they may not both predict independently. Again, the ways in which these constructs predict achievement may vary across African American and Caucasian students.

3. What are the predominant profiles of intrinsic motivation and avoidance for Caucasian and African American students, and are these profiles associated with reading comprehension and reading processes? This question addresses the extent to which the hypothesized continuum of aversion, apathy, ambivalence, and avid reading is significantly associated with reading comprehension and reading fluency. We examine whether membership in the reading motivation groups differs by ethnicity.

4. How do African American and Caucasian students compare in their levels of reading achievement and in their levels of the profiles of reading motivations? Previous research has often found that Caucasian students, on average, perform better on measures of reading

achievement than do African American students; we study this issue further here. Less is known about whether motivational profiles differ across African American and Caucasian students.

## Method

### *Participants*

The participants were 245 fifth-grade students from 13 classrooms in three schools in a small town in a mid-Atlantic state. The small town was in a middle-income residential suburb with a military base, and there was no urban center. Two schools were Title I eligible. There were 186 Caucasian and 59 African American participants, evenly divided by gender. We included all of the available African American students from these schools. The sample was representative of the school district in terms of the percentage of male and female students, and the percentages of students receiving special education services and free and reduced price meals (FARMS) (see Table 1). The students' mean grade equivalency score on the comprehension section of the Gates-MacGinitie Reading Test (2000), taken in September of the school year, was 6.02 with a standard deviation of 3.18. The Gates reading comprehension grade equivalent of the African American group was  $M = 5.00$  ( $SD = 2.47$ ), and the Gates reading comprehension grade equivalent of the Caucasian group was 7.13 ( $SD = 3.29$ ), which was statistically significant ( $t = 5.01$ ,  $df = 248$ ,  $p < .01$ ).

### *Measures*

*Motivation measures: Overview.* Students' motivation was measured by a questionnaire that assessed different components identified in previous research in the motivation field. We constructed these measures because existing measures were either too generally oriented to the construct of attitude (McKenna & Kear, 1990), too generally oriented to internal motivations (Gambrell, & Gillis, 2007) or did not include the undermining constructs of avoidance and

perceived difficulty (Wigfield & Guthrie, 1997). These measures were constructed with the same procedures we used to build measures and scales in previous studies (Guthrie, McRae, and Klauda, 2007).

The components included: intrinsic motivation to read, reading avoidance, self-efficacy, and perceived difficulty in reading. The measure was administered in a quiet room to groups of five students, grouped according to reading ability. The administrator read each item aloud, encouraged students to be honest, and suggested that students cover their answers with a blank paper that was provided. Students were assured that their answers were confidential and would not be given to their teacher or parents. Internal consistency reliabilities are reported in the Results section.

*Intrinsic motivation.* Intrinsic motivation is conceptualized as reading for enjoyment and curiosity, with a preference for challenging reading activities (Ryan & Deci, 2000; Wigfield & Guthrie, 1997). To measure intrinsic motivation, we constructed seven items, each consisting of a question and a Likert-response format. Sample questions included: “Do you enjoy reading books in your free time?” and “Do you like it when books make you think?” One question in the scale was worded negatively and reverse coded. The response format was: (1) Never, (2) Not usually, (3) Usually, and (4) Always. (see Appendix). Scores for each item were summed for a scale score.

*Avoidance.* The construct of avoidance is defined as students’ evasion of reading activities and disaffection with reading. It is consistent with previous conceptualizations of avoidance (Meece & Miller, 2001), and work avoidance in reading (Wigfield & Guthrie, 1997). To measure avoidance, we constructed seven items, each consisting of a question and a Likert-response format. Two sample questions were: “Do you try to get out of reading books for

school?” and “Do you read easier books so you won’t have to work as much?” One question in the scale was worded negatively and reverse coded. The response format was: (1) Never, (2) Not usually, (3) Usually, and (4) Always. (see Appendix). Scores for each item were summed for a scale score. The administration was the same as for self-efficacy, and occurred in the same session.

*Self-efficacy.* Self-efficacy refers to students’ belief in their capacity to read well, which is consistent with the theoretical literature (Schunk & Zimmerman, 1997). The measure consisted of seven items, each consisting of a question and a Likert response format. For example, two questions were: “Can you sound out long words?” and “Do you think you will do well in reading next year?” Two questions in the scale were worded negatively and reverse coded. The response format was: (1) Never, (2) Not usually, (3) Usually, and (4) Always. Scores for each item were summed for a scale score.

*Perceived difficulty.* This measure is defined as students’ perception that reading tasks are difficult for them to perform. This is consistent with studies of this construct with younger students (Chapman & Tunmer, 1995). The measure consisted of seven items, each consisting of a question and a Likert-response format. For example, two questions were: “Do you make lots of mistakes in reading?” and “Are the books you read in class too difficult?” Two questions in the scale were negatively worded and reverse coded. The response format was: (1) Never, (2) Not usually, (3) Usually, and (4) Always. Scores for each item were summed for a scale score.

*Cognitive measures: Overview.* To examine cognitive correlates of reading for Grade 5 students, we measured reading comprehension with a standardized test, the Gates-MacGinitie Reading Test (GMRT). We also measured important contributors to reading comprehension including the Woodcock Johnson Fluency Test (which measures silent reading speed), and word

recognition, which was a speeded test measuring accuracy and speed at the word level. The rationale for these cognitive reading measures is that they have been shown to be correlated with intrinsic motivation and self-efficacy (Morgan & Fuchs, 2007), but they have not been investigated for avoidance and perceived difficulty nor have they investigated avoidance and perceived difficulty in combination with intrinsic motivation and self-efficacy.

*Gates-MacGinitie Reading Test.* We employed the comprehension section of the Gates-MacGinitie Reading Test, Forms S and T. At the first test point, students were assigned to either Level 4, 5, or 6 of Form S of the test, based on teacher judgments of their general reading ability and school records. Each Gates-MacGinitie comprehension section consisted of 11 passages, each followed by three to six multiple-choice questions, for a total of 48 questions on each test. Approximately half of the passages were expository and half of the passages were narrative. We converted raw scores on this test to extended scale scores (ESSs). The Gates-MacGinitie Level 7/9 Reading Test has been shown to be reliable and valid with national samples (MacGinitie et al., 2000). The Gates-MacGinitie Level 7/9 Comprehension Test was correlated with the Vocabulary subtest  $r = .76$  for grade seven students.

*Woodcock-Johnson III Reading Fluency Test.* Performance on the Reading Fluency Test from the Woodcock-Johnson III Diagnostic Reading Battery (WJ-III DRB) measured fluency at the syntactic level, defined in this study as accuracy and speed in processing phrase and sentence units of text. This test consists of 98 simple sentences (e.g., “Ants are small.” and “A puppy grows into a cat.”). Students are directed to read as many of these sentences as they can within three minutes, circling Y for “yes” or N for “no” after each sentence, depending on whether it is true or false. Scores on the test equal the number of correct responses minus the number of incorrect responses. The internal consistency coefficient for a 10 year-old student is .90, and the

one-year test-retest reliability for students who first take the test at ages 8 to 10 is .78 (Woodcock, Mather, & Schrank, 2004).

*Word recognition assessment.* This assessment measures fluency at the word level, defined in this study as how quickly students could correctly identify individual words, presented in list form. The authors constructed two word lists that corresponded with selected passages from the Gates-MacGinitie comprehension test in order to establish a strong correlation of word recognition and comprehension. The lists for each text were created by first placing all unique words from the text in order by length, with the exception that proper nouns were placed at the end of the list. The full list was then divided in half, into A and B forms, by alternately placing the ordered words on separate lists. Students received either the A or B list corresponding to one of the stimulus passages for their assigned level, using a counterbalancing system detailed next in the procedure section. The lists varied in length from 28 to 44 words. After reading these directions aloud, the administrator gave the student a practice list comprised of six words and then the test list. During the testing phase, the administrator marked any words that the student read incorrectly or omitted and used a stopwatch to record the total time, in seconds, that it took the student to read the full list. The word recognition assessment (WRA) was scored by calculating the number of words read correctly per minute. Reliability for the WRA was determined by calculating the test-retest correlation for word reading speed for a quarter of the original student sample, which was retested three months later with word lists based on different passages. This test-retest correlation was .72.

### *Procedure*

In December, all students in the sample completed assessments, in the following order: (1) GMRT comprehension subtest, (2) WJ-III Reading Fluency subtest, and (3) motivation

questionnaire. These assessments were administered by the classroom teacher during regular class time, taking 90 minutes total across two days.

### Results

The first question of the study was the following: To what extent are intrinsic motivation and avoidance motivation distinct constructs in reading for both African American and Caucasian students? In addition, to what extent are self-efficacy and perceived difficulty distinct constructs in reading for African American and Caucasian students?

To address these issues, we conducted factor analyses of the data from the motivation measures. On a theoretical basis, we were interested in the quantitative distinctiveness of intrinsic motivation and avoidance. Statistically, it is possible that they are the “same thing,” in the sense that they measure the same construct, representing positive and negative scores on a continuum. If this is the case, these two measures will form one factor in a factor analysis with varimax rotation. If these two motivational constructs are empirically distinct they will form two factors, or perhaps more than two. Because we were interested in ethnic group comparisons, we conducted factor analyses for the African American and Caucasian groups separately.

We conducted factor analyses on 14 items with varimax rotation, accepting eigenvalues larger than 1. For the African American group, two factors were identified, consisting of avoidance and intrinsic motivation, accounting for 24% and 18% of the variance respectively. Of the seven items in the measure of avoidance, all loaded higher than .54 except one, which was deleted. A scale created from the remaining six items had a Cronbach’s alpha reliability of .79 for this group. The seven items on intrinsic motivation factor for this group had loadings exceeding .33, with a median of .60, but one that double loaded was deleted. A scale created from the remaining six items had a Cronbach’s alpha reliability of .62 for this group.

For the Caucasian group, two factors were identified, each accounting for 28% of the variance. The first factor was avoidance, with seven items loading higher than .54. The same six items that loaded highly in the factor analysis and formed a scale with a reliability of .79 for the African American group loaded highly and had a Cronbach's alpha of .85 for the Caucasian students. For the measure of intrinsic motivation, the six items that loaded highly for the African American group also loaded highly for the Caucasian group and had a Cronbach's alpha of .82 for the Caucasian students. Thus, the same items formed the scales with reasonable reliability for both ethnic groups that were examined separately.

For the variables of self-efficacy and perceived difficulty, we conducted factor analyses of 14 items for the African American and Caucasian students separately, using varimax rotation and accepting eigenvalues larger than 1. For the African American group, two factors were identified, accounting for 31% and 27% of the variance respectively. The first factor was perceived difficulty, with three items loading higher than .40. These items had a Cronbach's alpha of .68 for the African American students. For the measure of self-efficacy, four items loaded higher than .42. These items had a Cronbach's alpha of .57 for the African American students. We next examined the same items for the Caucasian group. For the Caucasian group, two factors were identified, accounting for 35% and 31% of the variance respectively. The first factor was perceived difficulty, with all three items loading higher than .55. These items had a Cronbach's alpha of .77 for the Caucasian students. For the measure of self-efficacy, all four items loaded higher than .47. These items had a Cronbach's alpha of .72 for the Caucasian students. The other items double loaded on both factors or loaded on neither factor. Thus the scales consisted of the same items for each ethnic group.

The correlations of intrinsic motivation and avoidance with the cognitive variables were computed for the African American and Caucasian students separately, and reported in Table 2. It can be observed that for Caucasian students, intrinsic motivation correlated with reading comprehension significantly,  $r(176) = .29, p < .01$ . For the Caucasian group, intrinsic motivation also correlated significantly with reading fluency on the Woodcock Johnson  $r(171) = .35, p < .01$ . For the African American group, intrinsic motivation correlated significantly with reading fluency on the Woodcock Johnson,  $r(52) = .31, p < .05$ .

The correlations of avoidance with measures of reading showed a different pattern. For Caucasian students, avoidance correlated negatively at  $r(177) = -.26, p < .01$  for reading comprehension. The negative correlation denotes that the high avoiders were relatively low achievers. For African American students, avoidance also correlated significantly with reading comprehension,  $r(54) = -.34, p < .01$ , in a negative direction. For African American students, the correlations of avoidance with the Woodcock Johnson Reading Fluency Test, and word recognition speed were significant at  $p < .05$ . Thus, for African American students, avoidance was more likely than intrinsic motivation to be significantly correlated (in a negative direction) with reading comprehension and reading processes. For Caucasian students, however, intrinsic motivation was more likely than avoidance to be significantly associated (in a positive direction) with the reading variables used in this study.

The measures of intrinsic motivation and avoidance were associated with each other more highly for the Caucasian group than for the African American group. For the Caucasian group the correlation was  $-.70 (p < .01)$ , and for the African American group the correlation was  $-.29 (p < .05)$ , which was a statistically significant difference  $z(235) = 3.58, p < .001$ . Thus, avoidance

motivation and intrinsic motivation were less unidimensional for African American students than for Caucasian students.

The correlations of perceived difficulty and self-efficacy with the cognitive variables were computed for the African American and Caucasian students separately, and reported in Table 2. It can be observed that for Caucasian students, self-efficacy correlated with reading comprehension significantly,  $r(176) = .29, p < .01$ . For the Caucasian group, self-efficacy correlated significantly and positively with all cognitive variables. For the African American group, the measure of self-efficacy correlated with reading comprehension at  $r(52) = .36, p < .01$ , and Woodcock-Johnson fluency at  $r(52) = .37, p < .01$ . However, self-efficacy did not correlate significantly with other cognitive variables for this group.

It can be observed that for Caucasian students, perceived difficulty correlated with reading comprehension significantly and negatively,  $r(176) = -.60, p < .01$ ; and perceived difficulty correlated significantly with all cognitive variables. For the African American group, the measure of perceived difficulty correlated negatively with reading comprehension at  $r(52) = -.51, p < .01$ , and it correlated significantly (in a negative direction) with reading comprehension and all cognitive variables.

The measures of self-efficacy and perceived difficulty were associated with each other more highly for the Caucasian group than for the African American group. For Caucasian students the correlation was  $-.52 (p < .01)$ , and for African American students the correlation was  $-.24 (p > .05)$ , which was a statistically significant difference  $z(235) = 2.08, p < .04$ .

The next question of the study was: To what extent can intrinsic motivation and avoidant motivation combine to predict achievement more fully than either one in isolation, and are the predictive relations similar for African American and Caucasian students? In addition, to what

extent can self-efficacy and perceived difficulty combine to predict achievement more fully than either one in isolation, and are the predictive relations similar for African American and Caucasian students?

To address this issue for intrinsic motivation and avoidance, we conducted a series of hierarchical multiple regression analyses as shown in Table 3. We were interested in whether the motivation of avoidance would explain variance in a variable such as reading comprehension after the variance attributable to intrinsic motivation was accounted for. For this issue, we did separate analyses for each cognitive reading variable, beginning with the Gates-MacGinitie Reading Comprehension measure as the dependent variable. We entered intrinsic motivation first as an independent variable, and we entered avoidance second as an independent variable with pairwise deletion. For African American students, 6% of the variance in reading comprehension was explained by avoidance. The final beta of  $-.26$  was not significant at the conventional level of  $p < .05$ , but was suggestively significant at  $p < .07$ . For word recognition in reading, avoidance motivation explained 13% of the variance after intrinsic motivation was accounted for, and the final beta for avoidance of  $-.38$  was not significant at the conventional level of  $p < .05$ , but was suggestively significant ( $p < .10$ ).

To examine the roles of avoidance and intrinsic motivation for Caucasian students, we entered the measure of intrinsic motivation before avoidance in a series of multiple regression analyses using the different cognitive variables as dependent variables. As shown in Table 3, for Caucasian students, avoidance contributed 1% of the variance in reading comprehension after intrinsic motivation was accounted for, which was not significant, but the final beta for intrinsic motivation was statistically significant at  $.21$  ( $p < .05$ ). The table shows that intrinsic motivation explained a significant proportion of variance in all three of the cognitive variables, after

avoidance motivation was accounted for. However, avoidant motivation did not contribute a statistically significant amount of variance to any cognitive variable after intrinsic motivation was accounted for. Thus, for Caucasian students, intrinsic motivation appeared to be stronger than avoidance in explaining variance in cognitive reading variables, whereas for African American students, avoidance motivation appeared to be stronger than intrinsic motivation in explaining variance in cognitive reading variables.

To investigate whether this different pattern of motivational associations with achievement were fully or partially attributable to the reading achievement levels of the African American and Caucasian students, we formed a Caucasian group that was equal in Gates reading comprehension to the African American group. The African American group was 69 Ss with a mean of 5.0 grade equivalent in reading comprehension. The Caucasian group was originally 181 Ss with a mean grade equivalent of 7.1, and the group was reduced to 119 Ss with a mean grade equivalent of 5.0. We conducted the same multiple regressions reported in the previous paragraph. When Reading comprehension was the dependent variable, the matched Caucasian group did not show any statistically significant associations of intrinsic motivation or avoidant motivation with achievement. Likewise, when fluency and word recognition were the dependent variables in separate multiple regression analyses, the matched Caucasian group did not show any statistically significant associations of avoidant motivation or intrinsic motivation with achievement. Thus the pronounced association of avoidance for African American students in comparison to Caucasian students was not explained by the differences between the groups in achievement. The African American students showed more association of avoidant motivation and achievement than Caucasian students even when the ethnic groups are equated statistically on reading comprehension achievement.

To examine the roles of perceived difficulty and self-efficacy, we entered the measure of self-efficacy before perceived difficulty in a series of multiple regression analyses, using the cognitive variables as dependent variables (see Table 4). For African American students, perceived difficulty contributed 19% of the variance in reading comprehension after self-efficacy was accounted for, which was significant, and the final beta for perceived difficulty was  $-.45$  ( $p < .01$ ). The table shows that perceived difficulty explained a significant proportion of variance in all three of the cognitive variables, after self-efficacy motivation was accounted for. Thus, for both ethnic groups, perceived difficulty explained more variance in cognitive reading variables (had higher betas) than self-efficacy.

For Caucasian students, perceived difficulty contributed 28% of the variance in reading comprehension after self-efficacy was accounted for, which was significant, and the final beta for perceived difficulty was  $-.62$  ( $p < .01$ ). Table 4 shows that perceived difficulty explained a significant proportion of variance in reading comprehension and the other cognitive variables, after self-efficacy motivation was accounted for. In addition, self-efficacy did not contribute to explained variance in any cognitive variable significantly, after perceived difficulty was accounted for. With the Caucasian group reduced to match the African American group in reading comprehension, as in the previous analysis, the results showed that the results did not change, and perceived difficulty was a stronger motivation than self-efficacy in predicting reading achievement.

The third question was: What are the predominant profiles of intrinsic motivation and avoidance for Caucasian and African American students, and are these profiles associated with reading comprehension and reading processes?

Due to the finding that the motivations of avoidance and intrinsic motivation were both associated with reading comprehension, we constructed profiles of students based on theoretical criteria. We defined profiles from their position on each scale to construct relatively high groups and relatively low groups, based on theoretical rather than empirical criteria such as those used in cluster analysis. We divided each motivation variable at the median, and then we placed students into groups of: (a) avid readers (high on intrinsic, low on avoidance); (b) apathetic readers (low on intrinsic, low on avoidance); (c) ambivalent readers (high on intrinsic, high on avoidance); and (d) averse readers (low on intrinsic, high on avoidance). This places students in relation to each other, as relatively more or less intrinsically motivated and avoidant rather than placing them on an absolute scale, which may be arbitrary. Thus, students with an avid profile were relatively more intrinsically motivated and relatively less avoidant than their peers.

To examine whether these motivation profiles were related to achievement, we conducted a multivariate analysis of variance consisting of one between group variable (profiles = 4), and the dependent variables of reading comprehension, Woodcock Johnson fluency, and word recognition. On the multivariate test, the Wilks was statistically significant,  $F(9,207) = 2.06, p < .03$ . The univariate tests showed that the profile variable was significant for reading comprehension,  $F(3, 208) = 6.51, p < .001$ ; Woodcock Johnson fluency,  $F(3, 202) = 13.77, p < .001$ ; and word recognition speed,  $F(3, 91) = 3.30, p < .02$ . Post hoc comparisons showed that for the Gates- MacGinitie Reading Comprehension test, and the Woodcock Johnson fluency measures, the avid readers were significantly higher than all other groups ( $p < .05$ ), which were not different from each other. For the word recognition measure, the avid group was statistically higher than the ambivalent and averse groups ( $p < .05$ ). The relatively low number of African

American students in certain cells of the profiles did not permit us to perform this analysis for the ethnic groups separately.

Another part of the third question was whether the ethnic groups differed in their profiles. Figure 1 shows this comparison. A Chi square analysis of ethnicity (2) by profile (4 reading motivation groups) was not statistically significant. Although the figure shows that whereas Caucasian students were more likely than African American students to be avid readers, African American students were more likely than Caucasian students to be apathetic or ambivalent readers and that similar proportions of the two ethnic groups were averse readers in this population, any apparent differences were not statistically significant. Thus, the distribution of profiles across the ethnic groups was similar.

The fourth question was: How do African American and Caucasian students compare in their levels of reading achievement and in their levels of the profiles of reading motivations? To address this, we conducted a multivariate analysis of variance with one between group factor (ethnicity) and the dependent variables of reading comprehension, oral reading frequency, Woodcock Johnson fluency, and word recognition. The result was that the Wilks' Lambda for groups was significant, with  $F(6, 80) = 2.97, p < .01$ . The ethnicity effect was significant for reading comprehension,  $F(1, 85) = 16.11, p < .000$ ; and Woodcock Johnson fluency,  $F(1, 85) = 4.39, p < .039$ . In each case, Caucasian students had higher scores than African American students (see Table 5).

To address ethnicity effects on motivation, we conducted a multivariate analysis of variance with one between subject factor of ethnicity and two dependent variables of intrinsic motivation and avoidance. In this analysis, the Wilks' Lambda was not statistically significant, and none of the univariate tests showed a statistically significant effect of ethnicity on level of

motivation. To address ethnicity effects on perceived difficulty and self-efficacy, we conducted a multivariate analysis of variance with one between subject factor of ethnicity and two dependent variables of perceived difficulty and self-efficacy. In this analysis, the Wilks' Lambda was not statistically significant and none of the univariate tests showed a statistically significant effect of ethnicity on level of motivation.

## Discussion

### *Important Findings*

This study investigated the roles of two pairs of affirming and undermining motivations for reading. One pair was intrinsic motivation and avoidance; the other pair was self-efficacy and perceived difficulty. The first important result of this study with respect to these pairs was that the variables within each pair were factorially distinct. This finding suggests that each variable actually represents a different construct of reading motivation, rather than being on a single continuum. For example, one can have a general sense of self-efficacy (I am a good reader), and also experience some texts as difficult (Some science books are hard to read). Likewise, one can express intrinsic motivation to read (I enjoy reading books), but also have specific avoidances (I do not like to read history books). These represent realistic discriminations among motivations.

We suggest that there may be qualitatively different affects associated with each pair of constructs. Although high intrinsic motivation for reading is associated with positive affect, low intrinsic motivation for reading may or may not be associated with negative affect. An individual with low intrinsic motivation may feel little affect, and be indifferent; or this individual may be hostile, averse, and avoidant of reading. Thus, low intrinsic motivation does not assure avoidance. If this is true, we expect that avoidance will combine with intrinsic motivation to

predict reading achievement more highly than either motivational construct alone, which was one of the findings from the multiple regression analyses of this study.

### *Profiles*

In this study, we created motivational profiles to capture the joint functioning of students' affirming and undermining motivations. A reader with an avid profile is both intrinsically motivated and non-avoidant. A reader with an avoidant profile is low on intrinsic, and high on avoidance. The apathetic profile is low on intrinsic motivation and low on avoidance; the ambivalent profile is high on intrinsic and high on avoidance; and the averse is low on intrinsic motivation and high on avoidance motivation. The profile approach contributes to describing students' motivational constitutions because the two constructs are only moderately correlated. Furthermore, the profiles predict achievement more highly than either construct taken in isolation. For reading motivation, no single motivational construct is sufficient to fully explain the association with reading achievement. For purposes of relating reading motivation to outcome variables, individuals are better typified as having a profile of multiple motivations that relate in different ways to their achievement, rather than being characterized by a univariate construct or by looking at only one aspect of motivation at a time.

The proposal that students' levels of intrinsic motivation and avoidance motivation can be combined to construct profiles that define avid, ambivalent, apathetic, and averse readers bears a resemblance to the cluster analysis of Seifert and O'Keefe (2001). They found that students' motivational constructs of perceived meaning, externality (control by others), and perceived competence were related to intrinsic motivation (termed *learning goals*) and work avoidance. Using measures of these five constructs, they formed four clusters of students that were characterized as follows: (a) students possessing meaningfulness and confidence in learning

(similar to our avid readers); (b) bored, but confident, learners (similar to our apathetic readers); (c) low confidence and low control learners (similar to our aversive readers); and (d) low control learners (not too similar to any of our groups). In addition, we identified an ambivalent reading group that was not observed by Seifert and O'Keefe (2001).

There are two differences in how the groups that were identified. First, the Seifert and O'Keefe (2001) approach was empirical, with statistical cluster analysis determining group membership. Our approach was theoretical, with the high and low levels of intrinsic motivation and avoidance combined factorially to define membership. Second, the two approaches used substantially different motivation constructs, which lends credence to their apparent similarity.

### *Ethnic Differences*

We examined how these motivational variables related to various measures of reading comprehension, focusing on ethnic differences in these relations. One potentially important finding was that intrinsic motivation did not correlate significantly with the reading variables of reading comprehension or word recognition for African American students. However, intrinsic motivation was significantly correlated these two reading achievement variables for Caucasian students. Intrinsic motivation was correlated with fluency for both groups. This finding is related to the results of Osborne (1997), who found that self-esteem was not correlated significantly with reading achievement for a national sample of African American males, although self-esteem correlated with reading achievement for White males and females, Hispanic males and females, and African American females. This finding also is similar to the findings of Baker and Wigfield, (1999), who reported that intrinsic motivation correlated lower with reading achievement for African American students than for Caucasian students. It appears that African American students appear to decouple their interests and enjoyments from reading more

markedly than Caucasian students. We do not have evidence regarding the sources of this decoupling process, but the finding is consistent with studies showing that African American students are more likely than Caucasian students to devalue achievement (Taylor & Braham, 2007) and disidentify with school reading (Osborne, 1997). However those results were observed for middle school students, whereas our data were from elementary school students.

A noteworthy finding was that avoidance explained a higher proportion of variance in reading achievement than intrinsic motivation did for African American students. This does not state or imply that African American students had a deficit in motivation because they are avoidant. To the contrary, one interpretation of this result is that there is an element of commitment and effort embedded in the construct of avoidance. The commitment to reading occurs for students who report *low avoidance*. To score low on this avoidance scale, students must repeatedly respond negatively to questions such as: “Do you try to get out of reading books for school?” and “Do you read easier books so you won’t have to work as much?” by saying “never” or “not usually.” They do not escape, or procrastinate, but are conscientious in their schoolwork. For these students with *low avoidance*, commitment to reading may lead to relatively high amounts of time and cognitive effort in reading. The low avoidant (and thus high effort) student is more likely to persevere in the face of difficulty and to gain comprehension skills than the student who is disposed to avoid reading. The student with low avoidant motivation is committed to doing school reading activities consistently, whether the activities are interesting or not.

It is potentially valuable to realize that African American students who are low in avoidance are relatively high achieving readers. It is possible that the commitment of students to *not avoid* reading tasks is more associated with achievement for African American students than

for Caucasian students because African American students have a relatively high untapped potential for reading achievement. In this view, African American students possess sufficient cognitive reading competencies, such as fluency, and use of background knowledge to achieve more highly than they do in reading comprehension. Thus, when low avoidant students commit effort and attention to reading tasks, they achieve more highly in reading than other African American students. This potential for achievement may be higher for African American students than for Caucasian students because Caucasian students may already commit slightly more effort to reading, in general, whether they are interested or not. More investigation is needed to examine that hypothesis.

An alternative interpretation of the finding that avoidance is highly predictive for African American students relates to resilience in response to low achievement. That is, when African American students experience low grades, or low scores in reading, they may abandon reading relatively quickly. They may give up attempting to read well when they perform poorly, showing less resilience to reading failure than is optimal for them a possible source of the strong linkage between achievement and avoidance among African Americans may be the process of valuing. It appears that African American (and Hispanic) males often nominate low-achieving males who put forth little effort in school as their role models. In contrast, Caucasian males often nominate high achieving, high effort males as their role models (Graham, Taylor, & Hudley, 1998; Taylor & Graham, 2007). Also documented by Obgu (2003) in qualitative studies, the devaluing of achievement may lead to avoidance of reading. However, this devaluing of school achievement occurred for middle school males, but not for elementary school males in previous studies. In the present study with fifth graders, African American and Caucasian students appeared in equal

proportions in the in the aversive motivation profile group. Thus it was not the level of avoidance but rather the linkage of avoidance and achievement that distinguished the ethnic groups.

Another possible explanation of the ethnic differences is that the meanings of the terms and phrases in the questionnaires, such as *interesting*, *long book*, and *reading frequently* may have different referents for students from these two ethnic groups. Consistent with this view, the language used to represent intrinsic motivations has not been empirically derived from grounded studies with African American students, which may imply that the questionnaires are less well adapted to African American students. A weakness of this study is that we did not construct motivation questions from grounded interviews with African American students, and did not pilot the measures to assure their cultural validity. However, some of the motivation measures predicted reading achievement higher for African American than Caucasian students, providing a positive indicator of their concurrent validity. Because the reading motivation of avoidance appeared to be predictive of African American students' achievement, the wording of items within this construct appears to be aligned with African American students' perceptions of reading.

The current findings concur with research on performance-avoidance motivation by Elliot and Church (2003) and Pintrich (2000), showing that relatively low achieving students are not simply unmotivated, but may be active in their avoidance of reading tasks. Furthermore, this study confirms the findings of qualitative research (Smith & Wilhelm, 2002) in which some students are methodically resistant to school reading and writing activities. This resistance may protect their self-image and assure their membership in a social peer group that resists the reading expectations of teachers or parents. For African American students the motivations of self-efficacy and perceived difficulty both made independent contributions to achievement. This

means that some students have high self-efficacy (I am a good reader.) but moderate perceived difficulty (Sometimes I have problems recognizing words.); whereas other students have high self-efficacy and low perceived difficulty (I am a good reader; and I do not have problems recognizing words). Both profile groups were relatively high achieving. The lowest achieving students were those who had low self-efficacy (I am not a good reader.), and high perceived difficulty (I have a lot of problems reading words.). Not only did they lack positive faith, but they had negative faith in themselves as readers. For Caucasian students, only self-efficacy contributed to explaining variance in achievement. Thus, African American students had dual motivations that affected their achievement in the arena of efficacy. Not only did a general belief in their capacity help them, but recognizing their specific strengths propelled them toward higher achievement.

An important aspect of this study was the examination of motivational profiles in different ethnic student groups. Membership in the reading profile groups appeared to be similar. As shown in Figure 1, there were a relatively higher proportion of avid readers among the Caucasian students than among the African American students, and there were relatively higher proportions of apathetic and ambivalent readers among African American readers than among Caucasian readers. The proportions of averse readers in the two ethnic groups were similar. Within this study it was not possible to equate the ethnic groups on reading level, and thus these proportions are reported as preliminary and await more statistical controls in future studies.

We suggest that motivational processes for reading may vary for these ethnic groups in ways that are educationally significant to the degree that they are associated with achievement in reading comprehension. For example, one could propose that it may be more productive for African American students to emphasize self-direction and self-discipline to read, whereas for

Caucasian students it may be more productive to emphasize the development of interest as a basis for reading. However, we suggest that such an approach will not lead to optimal achievement, and that both motivations should be cultivated for both ethnic groups. It seems desirable to have both sources of motivation (intrinsic motivation and avoidance) promoting achievement for both ethnic groups. To accomplish this will entail fostering the interests of African American students in forms that are connected more closely to reading achievement on school-based reading than conventional instruction affords. As the reading achievement of Caucasian students is more driven by interest than avoidance, this will entail linking their achievement more closely to the commitment to not avoid reading.

### *Limitations*

One limitation of this study is its cross-sectional nature, which makes it difficult to determine whether students' performance in reading determined their motivation, or if students' motivation determined their reading performance. It is possible that intrinsic motivations predicted Caucasian students' reading comprehension more strongly because their better performance in reading fostered these positive motivations. Longitudinal work is needed to examine this various possibility.

A second limitation of this study is that the number of students in this study was limited, and a larger sample of both ethnic groups would be more sensitive to possible differences among groups. The relatively low number of students leads us to view the results as preliminary findings that should be investigated with larger numbers of students. A third limitation of this study is that it was conducted with Grade 5 students African American and Caucasian students, and it is unknown whether students in higher (high school) or lower (primary) grades would show similar patterns of motivation and achievement. The affirming and undermining motivations were

limited to two pairs. It would be valuable to investigate social motivation (e.g., prosocial goals) and anti-social goals. It is also potentially valuable to study Hispanic and other ethnic minorities who may show differential patterns of motivation associating with achievement as reported by Unrau & Schlackman, 2006).

### *Summary*

In summary the major findings of this study were that both affirming and undermining motivations were found to be associated with reading achievement in the form of word recognition, reading fluency, and reading comprehension for African American and Caucasian students. Importantly, we observed that the motivational process of avoidance was more strongly connected to achievement for African American students than Caucasian students. This does not mean that African American students showed more avoidance. The two groups were the same in level of avoidance. This finding states that avoidance was more powerful for African American students than Caucasian students. In other words, non-avoidant, disciplined, conscientious reading for school purposes reaped more rewards in achievement for African American students than Caucasian students. For Caucasian students, intrinsic motivation was relatively strongly associated with achievement. Higher intrinsic motivation related to higher achievement for this group. Although both constructs of intrinsic motivation and avoidance were correlated with achievement for both groups, we observed that the relative strengths of the two motivations when considered together had different weights.

### *Implications*

One implication for education may be that we should adapt instruction to students' motivational patterns whenever possible. We recommend that motivation and engagement in the classroom can be increased through explicit support for engagement by providing instruction that

emphasizes relevance, success, choices, collaboration and thematic units as illustrated in Concept-Oriented Reading Instruction (CORI) (Guthrie, et.al, 2007) as well as other approaches. It is possible that CORI could be adapted to minority students by providing more explicit scaffolding of relevance (for intrinsic motivation), success (for self-efficacy), choices (for ownership) and thematic units (for mastery goals). For example, relevance can be accentuated by providing more hands on experience, more linking books to student knowledge, more fusion of video with reading for knowledge, and more connection of reading to students' personal agendas. This added scaffolding, especially of success and relevance, are likely to address the avoidance motivation which appears important for these students.

In this study, students displayed profiles of avid, ambivalent, apathetic, and averse reading. Each profile represents a different configuration of intrinsic motivation and avoidance in reading. If the teacher has a high number of avid readers in a classroom, instruction need not address motivation as thoroughly as the case where a teacher has a large number of apathetic readers. In the worst case, a teacher faces a classroom of averse readers. In this scenario, a strong structure of motivation support may be the most vital teaching challenge. If students continually avoid reading, it is improbable they will learn a reading strategy or higher order reading competency. In such cases, a motivational design takes priority in the classroom. Whether it is the CORI plan, or another motivational support design, our main message is that individuals possess a limited set of varying motivational patterns. Instruction should be fine tuned to nurture all the motivation patterns of all students in the classroom.

#### *Future Research*

One future direction for research is to examine avoidance motivation more closely. In this study, avoidance motivation in reading is represented in the items as a continuum of

intentionality to participate in reading behaviors. At the end of the continuum in which students report high amounts of avoidance, students are responding to such questions as “Do you try to get out of reading books for school?” by saying “Always” or “Usually”. In such a question ‘reading’ is the behavior; with books for school as the content. In this case, ‘try to get out of’ denotes an intention or goal with regard to this behavior of reading. Although the intention may not always be fulfilled, it remains an enduring disposition.

At the other end of the continuum of avoidance, the student is deliberately non-avoidant. This student possesses the intention to perform one or more reading behaviors. According to the items, the students who respond that they do not avoid reading are communicating that they have intentions to read regardless of whether the text is difficult, the task may take a long time, or they may dislike the content. This implies self-discipline and conscientiousness. Whether or not this student has positive affects toward the reading, she will persevere with it.

A finding of this study was that avoidance motivation was more strongly associated with achievement for African American students than Caucasian students. What are the attributes of African American students that enable this? One hypothesis is that African American students have more strategies for attaining their intentions than Caucasian students. If non-avoidant African American students possess and use more skills in planning, organizing, completing and submitting their school work related to reading than Caucasian students, they may enjoy more achievement than equally non-avoidant Caucasian students. At the other end, if highly avoidant African American students possess and use more strategies for circumventing reading activities than Caucasian students, they would experience relatively more loss in reading activity and thus show relatively more decreases in reading achievement than equally avoidant Caucasian students.

A second possibility is that amount of reading (especially school reading) is more highly associated with reading achievement for African American students than Caucasian students. If so, the realized intention to read or not to read would result more reliably in higher amounts of reading and consequently higher levels of reading achievement for African American than Caucasian students. These issues merit future research and inquiry.

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Table 1

*Demographic Characteristics of Students in the Sample and in the School District*

Characteristic	Sample (%)	District (%)
Gender		
Male	50.6	51.2
Female	49.4	48.8
Ethnicity		
African American	24.1	10.8
Caucasian	75.9	79.1
Special Education	10.2	11.6
FARMS	NA	18.1

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Note: The district percentages for Gender and Ethnicity

represent students at the elementary, middle school, and high

school levels combined; the Special Education, and

FARMS represent elementary students only.

Table 2

*Correlations for reading and motivation for two ethnic groups*

Measure	1	2	3	4	5	6	7
1. Intrinsic Motivation		-.29 <sup>*</sup>	.38 <sup>**</sup>	-.12	.21	.31 <sup>*</sup>	.06
2. Avoidance	-.70 <sup>**</sup>		-.29 <sup>*</sup>	.29 <sup>*</sup>	-.34 <sup>**</sup>	-.33 <sup>**</sup>	-.40 <sup>*</sup>
3. Self-Efficacy	.41 <sup>**</sup>	-.27 <sup>**</sup>		-.24	.36 <sup>**</sup>	.37 <sup>**</sup>	-.06
4. Perceived Difficulty	-.44 <sup>**</sup>	.38 <sup>**</sup>	-.52 <sup>**</sup>		-.51 <sup>**</sup>	-.45 <sup>**</sup>	-.63 <sup>**</sup>
5. Reading Comprehension	.29 <sup>**</sup>	-.26 <sup>**</sup>	.29 <sup>**</sup>	-.60 <sup>**</sup>		.80 <sup>**</sup>	.52 <sup>**</sup>
6. Fluency – Woodcock Johnson	.35 <sup>**</sup>	-.29 <sup>**</sup>	.26 <sup>**</sup>	-.52 <sup>**</sup>	.70 <sup>**</sup>		.49 <sup>**</sup>
7. Word Recognition	.25 <sup>**</sup>	-.09	.34 <sup>**</sup>	-.43 <sup>**</sup>	.66 <sup>**</sup>	.64 <sup>**</sup>	

Note: African American correlations are above the diagonal, Caucasian correlations are below the diagonal. <sup>+</sup>  $p < .06$ , <sup>\*</sup>  $p < .05$ , <sup>\*\*</sup>  $p < .01$

Table 3

*Regression analyses of intrinsic motivation and avoidance on reading outcomes for two ethnic groups*

<i>Ethnicity</i>	<i>Dependent Variable</i>	<i>R</i>	<i>R</i> <sup>2</sup>	<i>DR</i> <sup>2</sup>	<i>Final b</i> <i>Intrinsic</i>	<i>Final b</i> <i>Avoidance</i>
African American	Reading Comprehension	.33	.11	.06 <sup>+</sup>	.14	-.26 <sup>+</sup>
	Woodcock Johnson Fluency	.38	.14	.05	.24 <sup>+</sup>	-.23
	Word Recognition	.37	.14	.13 <sup>+</sup>	-.05	-.38 <sup>+</sup>
Caucasian	Reading Comprehension	.30	.09	.01	.21 <sup>*</sup>	-.11
	Woodcock Johnson Fluency	.35	.12	.00	.28 <sup>**</sup>	-.09
	Word Recognition	.28	.08	.02	.38 <sup>*</sup>	.19

Note: Intrinsic motivation was entered as the first independent variable; avoidance was entered as the second variable. <sup>+</sup> $p < .10$ , <sup>\*</sup> $p < .05$ , <sup>\*\*</sup> $p < .01$

Table 4

*Regression analyses of self-efficacy and perceived difficulty on reading outcomes for two ethnic groups*

<i>Ethnicity</i>	<i>Dependent Variable</i>	<i>R</i>	<i>R</i> <sup>2</sup>	<i>DR</i> <sup>2</sup>	<i>Final b</i> <i>Efficacy</i>	<i>Final b</i> <i>Difficulty</i>
African American	Reading Comprehension	.57	.32	.19**	.26*	-.45**
	Woodcock Johnson Fluency	.53	.28	.15**	.28*	-.39**
	Word Recognition	.65	.42	.41**	-.06	-.64**
Caucasian	Reading Comprehension	.60	.37	.28**	-.03	-.62**
	Woodcock Johnson Fluency	.52	.27	.20**	-.01	-.52**
	Word Recognition	.44	.19	.08**	.15	-.33**

Note: Self-efficacy was entered as the first independent variable; perceived difficulty was entered as the second variable. +  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$

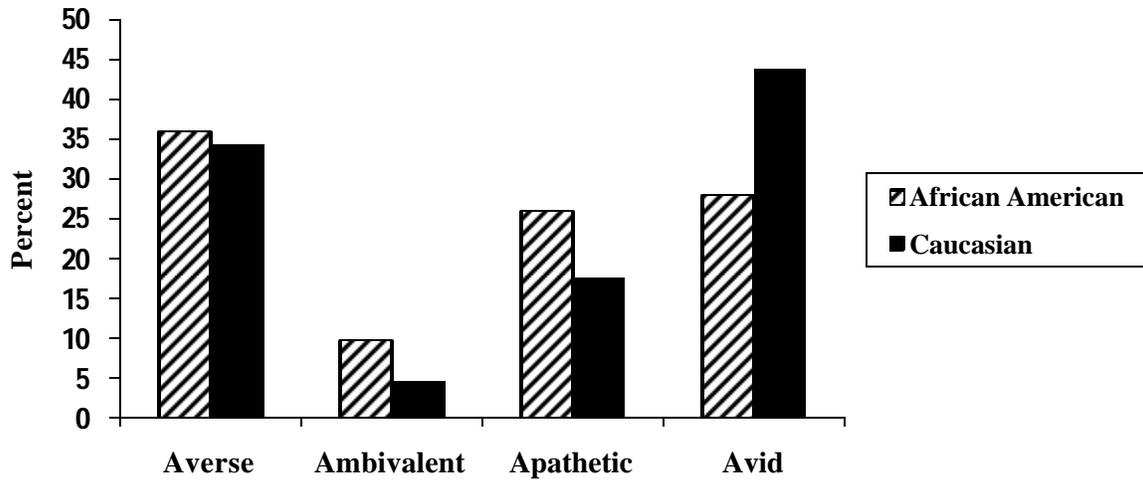
Table 5

*Means and standard deviations for reading and motivation variables for two ethnic groups*

	<i>African American</i>		<i>Caucasian</i>	
	M	SD	M	SD
Intrinsic Motivation	3.00	0.50	3.11	0.62
Avoidance	2.27	0.50	2.16	0.55
Self-Efficacy	3.27	0.44	3.26	0.46
Perceived Difficulty	1.72	0.58	1.59	0.54
Reading Comprehension	481.16	34.43	518.51	44.89
Fluency – WJIII	100.61	14.26	109.47	17.47
Word Recognition	82.80	24.86	89.60	27.53

Figure Caption

Figure 1. Percentage of avid, ambivalent, apathetic, and averse students by ethnicity.



Appendix

Reading Motivation Scale

*Intrinsic motivation*

- 1. Do you enjoy reading books in your free time? #
- 5. Do you like to read new books? #
- 8. Is reading boring to you?\*
- 15. Do you enjoy the challenge of reading a book? #
- 20. Do you enjoy reading interesting books even if they are hard? #
- 22. Do you enjoy reading books for a long period of time? #
- 27. Do you like it when books make you think? #

*Avoidance*

- 7. Do you guess a lot when reading so you can finish quickly? #
- 9. Do you read easier books so you don't have to work as much? #
- 14. How often do you try to find a good book?\*
- 17. How often do you think, "I don't want to read this"? #
- 23. Do you try to get out of reading books for school? #
- 25. Do you wish you didn't have to read for school? #
- 26. Do you read as little as possible? #

*Self-Efficacy*

- 4. Can you figure out hard words when reading? #
- 10. Can you sound out long words? #
- 12. Do you learn more from reading than most students in the class?
- 18. Can you recognize words easily when you read? #
- 19. Do you think you will do well in reading next year?
- 24. Are you good at remembering words?
- 28. Do hard words in a story stop you from reading?\*

*Perceived Difficulty*

- 2. Do you need extra help in reading? #
- 3. Are you a good reader? #\*
- 6. Is it hard for you to understand stories you read in class?
- 11. Do you make lots of mistakes in reading? #
- 13. Are the books you read in class too difficult?
- 16. Do you feel others are smarter than you in reading?
- 21. Is reading to the class a challenge for you?

Note: \*indicates "Negative" questions reverse coded  
# indicates item was used in the scales