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Perceived ideological bias in the college classroom and the role of student reflective thinking: A proposed model

Darren L. Linvill[1] and Joseph P. Mazer[2]

Abstract: This study tests a model of students' reflective thinking, perceived ideological bias among university faculty, and reactions to ideological bias in the college classroom. Participants were 187 undergraduates who completed the Reasoning About Current Issues Questionnaire and the Political Bias in the Classroom Survey. Structural equation modeling revealed that participants in lower ranges of reflective thinking had increased perceptions of ideological bias among university faculty. The model suggests that these perceptions then lead students to adversely react to the presence of such ideological bias in the classroom. Theoretical, pedagogical, and methodological implications are discussed.

Keywords: bias, reflective thinking, ideology, pedagogy, student development

The role ideology plays in the university classroom is a continual issue of debate. A common public perception has been that academics are a liberal elite, and that they, in the words of conservative activist David Horowitz, "behave as political advocates in the classroom, express opinions in a partisan manner on controversial issues irrelevant to the academic subject, and even grade students in a manner designed to enforce their conformity to professorial prejudices" (2007, p. 188). The *Chronicle of Higher Education* demonstrated how pervasive this view has become with a 2004 public opinion poll that found 51% of 1,000 individuals surveyed in the United States (U.S.) believed college faculty improperly introduced a liberal bias into their classrooms (A Special Report). In contrast, the American Association of University Professors' Statement on Professional Ethics states "As teachers, professors encourage the free pursuit of learning in their students … Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors" (2009, p. 4). There is clearly a disconnect between what faculty profess to do and what many outside of higher education perceive to be happening. If this disconnect can be addressed through changes in pedagogy, even if only partially, then such changes should be explored. This study explores how student reflective thinking, student perceptions of ideological bias, and student reactions to ideological bias interact. Understanding the relationship between these three variables may help educators communicate more effectively with students in an effort to foster open minded inquiry.

The perception of an ideological bias has reached outside the classroom as well. Campus initiatives such as freshman reading (Beach Books, 2010) and diversity education programs (Hoover, 2007) have been criticized for attempting to ideologically indoctrinate students. Regardless of their ideological motivation, however, such programs often explore issues that have the potential to expose ideological conflict. These programs address *ill-structured problems*, defined by King and Kitchener (2004) as problems having "two features: that they

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cannot be defined with a high degree of completeness, and that they cannot be solved with a high degree of certainty" (p. 5).

The perception of an ideologically liberal bias in academia is likely fostered by the fact that academia is, in fact, left leaning. Peer-reviewed studies have explored the U.S.'s higher education system and estimated approximately three liberal faculty members for every one conservative (Gross & Simmons, 2007; Zipp & Fenwick, 2006). While there has been a clear ideological imbalance in the professoriate, other research has questioned the legitimacy of Horowitz's (2007) concern that instructors are enforcing ideological conformity or grading in a prejudiced manner. Studies have indicated that conservative students do not receive lower grades from faculty compared to their liberal peers (Kemmelmeir, Danielson, & Basten, 2005), and that while students do self-identify as more politically liberal during their college years, they do so at rates similar to individuals in the same age range who do not attend college (Mariani & Hewitt, 2008).

Though research does not support that faculty ideology has an effect on students' grades or beliefs, faculty ideology may still affect students' college experience. Kelly-Woessner and Woessner (2008) have found that students who perceive their instructors as having politically similar views reported putting more effort into a class. Students also reported higher levels of learning from politically similar instructors, and conversely reported less enthusiasm for classes taught by instructors politically dissimilar to themselves. Although Kelly-Woessner and Woessner's findings are based on student self-reports and unmeasured learning outcomes, they do support the need for further exploration of the student classroom experience as it relates to ideological bias.

Smith, Mayer, and Fritschler (2008) began to explore the student experience with ideological bias in the university classroom through a series of focus groups and interviews with students. Their findings indicated that students did not believe their professors were biased or that their campuses lacked a diversity of political views. In fact, the researchers suggested that many students wanted instructors to be more forthcoming with ideological views. Smith, Mayer, and Fritschler's sample population, however, lacked diversity. The participants are identified as "high achievers … the students accepted the notion that they were attending college to learn, to be stimulated by their professors, and to have their own views challenged by their professors and their fellow students" (p. 146). Smith, Mayer, and Fritschler's findings may hold true with similar high achieving students but their conclusions cannot be broadly applied.

In an effort to find a wider student perspective regarding instructor ideological bias, Linvill and Havice (2011) explored what students perceive as ideological bias from their university instructors and how they experience such bias. Through this research, the Political Bias in the Classroom Survey (PBCS) was developed. Linvill and Havice employed this measure to identify demographic differences between students' perceptions of ideological bias. Their research suggested that self-identified conservative students perceived more, while African American students perceived less ideological bias from their university instructors. No other demographic variable was found to be significant in the perception of ideological bias. A follow up study employing the PBCS (Linvill, 2011) also identified a possible relationship between student identity, as defined by Marcia's (1966) identity development construct, and the perception of ideological bias in the classroom.

Fisler and Foubert (2006) suggest an additional important factor that may influence students' perceptions of instructor ideological bias: student cognitive development. Fisler and Foubert argued that students' cognitive development may play a crucial role in how they

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perceive and react to their classroom experience, particularly related to ideology. Fisler and Foubert argued that facilitating cognitive growth is an essential function of higher education, but that such growth is often "accompanied by some degree of disequilibrium, especially if students are stretched too far beyond where their minds are ready to go" (p. 4). They suggest that disequilibrium caused by having beliefs challenged may influence students' perceptions of education professionals having an ideological bias, stating "students' level of cognitive development is central to the meaning they ascribe to events around them" (p. 4).

To gauge one form of undergraduate students' cognitive development, this study employed King and Kitchener's (1994) Reflective Judgment Model (RJM). The RJM focuses on understanding the *way* people think rather than *what* they think. The RJM was developed to explore the progression in an individual's assumptions about how and what they can know, an individual's epistemological assumptions. The model specifically gauges development of reflective thinking in late adolescence and through adulthood. Dewey (1933), the first to define the concept of reflective thinking, stated it "involves (1) a state of doubt, hesitation, perplexity, mental difficulty, in which thinking originates, and (2) an act of searching, hunting, inquiring, to find material that will resolve the doubt, settle and dispose of the perplexity" (p. 12). Dewey believed reflective thinking compelled individuals to inquiry through evidence and rationality and that encouraging such thought was a central goal of education.

King and Kitchener (2004) grouped the RJM into three distinct levels which divide the seven stages comprising the RJM. Individuals in stages one through three, termed *pre-reflective thinking*, operate under the assumption that knowledge is certain. Single correct answers exist for all questions and there are no ill-structured problems. An individual in the stages of *pre-reflective thinking* relies heavily on belief, opinion, and the word of authority figures. Stages four and five comprise *quasi-reflective thinking*. These individuals recognize that uncertainty is a part of the knowledge process and that knowledge is constructed. *Quasi-reflective* thinkers begin to use and understand evidence in building knowledge claims, though the link is tenuous. This link is solidified in stages six and seven, *reflective thinking*. *Reflective thinkers* contend that knowledge claims should be evaluated in context. These individuals remain open-minded to re-evaluating claims should new information arise.

The purpose of this study is to test a model which examines the role of reflective thinking in the perception of and reaction to political bias in the college classroom. Given that individuals found to be in the *pre-reflective thinking* stages of the RJM rely heavily on belief and opinion and individuals found to be in the *reflective thinking* stages of the RJM are generally more open-minded to re-evaluating knowledge claims in the face of new information, it seems likely that individuals who are in the higher stage ranges of the RJM will be less likely to view their instructors' actions as politically biased. It is possible that what is viewed by an individual in a lower stage range of the RJM as bias may be viewed by an individual in a higher stage range as the instructor purposefully challenging the student with new concepts that can and should be evaluated on their own merit. In addition, it also seems likely that the degree to which students perceive political bias in the classroom predicts how strongly those individuals react to it, with higher degrees of perception resulting in a greater degree of reaction. Thus:

H1: Students' reflective thinking development will negatively predict students' perceptions of an ideological bias among university faculty.

H2: Students' perceptions of an ideological bias among university faculty will positively predict students' reactions to ideological bias.

I. Method.

A. Participants.

Survey data was collected for the current study through convenience sampling in the fall of 2010. One hundred eighty-seven undergraduate student participants were recruited from 14 sections of Introduction to Public Speaking at the study institution. The participants volunteered to take part in the study for extra credit from a total sample population of 242 students. Although Introduction to Public Speaking is housed in the Department of Communication Studies, the classes were general education courses at the study institution, a mid-sized, land grant institution in the Southeastern United States. Therefore, participants represented various academic disciplines. Administration of the surveys took place on the participants' own time in a laboratory setting.

The sample consisted of 52.4% female and 47.6% male participants. The sample was comprised of 26.2% freshmen, 30.5% sophomores, 23% juniors, and 20.3% seniors while the mean age was 19.7. 87.7% for participants self-identified white, 6.7% African-American, 0.5% American Indian/Alaskan native, 2.7% Asian or Pacific Islander, 2.1% Hispanic, and no participants self-identified as other. Participants' ideology was self-identified on a seven-point Likert-type scale, with one being "very liberal" and seven being "very conservative." The mean reported ideology was 4.3 with a standard deviation of 1.4.

B. Procedures and Instrumentation.

To gauge undergraduate *reflective thinking* this study employed the Reasoning About Current Issues Test (RCI, King & Kitchener, 2004). The RCI is the only instrument currently available to evaluate at what stage of the RJM a student is in their reflective thinking. Most previous research utilizing the RJM has employed the Reflective Judgment Interview (RJI, King & Kitchener, 1994). Training on the implementation of the RJI, a semi-structured interview designed to obtain data regarding participants' epistemological assumptions, is no longer being offered (Reflective Judgment, 2011). Unlike the RJI, the RCI is an objectively scored measure amenable to large-scale administration. The RCI is an online measure of reflective judgment administered at reflectivejudgment.org (Reflective Judgment Model, 2010). The RCI takes approximately 30 to 45 minutes to complete and is comprised of descriptions of three ill-structured and controversial problems. The measure is proprietary and not available to the public, but examples provided at refectivejudgement.org of the type of problems employed in the RCI include global warming and federal government debt. Participants are asked to read ten statements regarding each ill-structured problem. The statements reflect different levels of the RJM. The participant is asked to rate how closely each statement relates to his or her own thinking on a four-point scale. The participant may also rate a statement as "meaningless." Purposefully meaningless statements containing complex vocabulary are included to control for the possibility of participants rating statements high based on their apparent sophistication rather than actual connection to their own way of thinking. Finally, participants are asked to choose the three statements that most closely reflect their own thinking and rank them in order starting with the statement that is most like their own thinking. These rankings are used to calculate the participants RCI score. This RCI score reflects the level of RJM reasoning most often employed

by the participant. Scores range from two to seven and correspond to levels two through seven of the RJM.

Wood, Kitchener, and Jensen (2002) reported internal consistency for the RCI with alpha scores in the low to mid 0.70's for different samples. Reliability testing performed on the current study indicated an alpha of 0.473. Although some may express concern regarding the low estimates of internal reliability obtained for this measure, reflection on the nature of the reflective thinking construct assessed here mitigates against this concern. Little, Lindenberger, and Nesselroade (1999) argue that low internal reliability does not necessarily indicate that a measure lacks validity, as indicator specificity does not mean that the scale is assessing reliably the true centroid of the construct under investigation. Conversely, they note that some constructs are assessed best via a limited number of heterogeneous indicators, despite the low reliability concomitant with such indicators. As the construct of interest here (i.e., reflective thinking) necessarily stimulates only a limited number of diverse and somewhat heterogeneous manifest indicators, it stands to reason that this construct's indicators would exhibit lower than normative reliability, yet still provide true information about the construct (Ledbetter, 2009).

To gauge *students' perceptions of ideological bias*, this study employed the PBCS (Linvill & Havice, 2011). The PBCS (as modified by Linvill, 2011) is a 12-question self-report survey eliciting Likert-style responses. Rather than asking about particular instructors, the instrument draws on participants' general attitudes regarding faculty. Responses range from one, "strongly disagree," to six, "strongly agree." The PBCS explores student experiences with instructor political bias in the college classroom along two dimensions: the degree to which the student perceives instructor political bias and the degree to which the student reacts to this bias. The six-item *perceptions* scale focuses on what the students experience in the classroom and is based on observations of their instructors. This scale addresses elements found to be inherent to students' perception of instructor political bias such as the perception of instructors limiting class content and discussion to conform to their own beliefs as well as instructors dismissing views and ideas expressed by students which disagree with their own views. A typical *perceptions* scale question reads: "In my experience, professors present multiple political views when discussing political issues." The six-item *reactions* scale focuses on how students were found to respond to the perception of instructor political bias, focusing on the students' perceived need to conform to the beliefs of their instructor, whether in class discussion or through responses on tests and assignments. A typical reactions scale question reads: "When a professor expresses political views that differ from my own, it is difficult for me to contribute to class." Linvill (2011) obtained a Cronbach's alpha coefficient of 0.77 for the *perceptions* scale and 0.78 for the *reactions* scale. For the current study, reliability testing performed on the PBCS showed the *perceptions* scale had a Cronbach's alpha of 0.69, while the *reactions* scale had a Cronbach's alpha of 0.76.

C. Data Analysis.

As shown in Figure 1, the hypothesized model contained three latent constructs: (a) reflective thinking, (b) perceptions of ideological bias, (c) reactions to ideological bias. The constructs were identified by creating three *parcels,* "aggregate-level [indicators] comprised of the sum (or average) of two or more items, responses, or behaviors," (Little, Cunningham, Shahar, & Widaman, 2002, p. 152) per latent construct. Given the unidimensional nature of these constructs, items were assigned to parcels by thirds (e.g., for the six-item perceptions of

ideological bias measure, the first parcel contained items 1 and 4, the second parcel contained items 2 and 5, and the third parcel contained items 3 and 6). The parceling technique, which

Figure 1. Hypothesized Structural Model Predicting Students' Perceptions and Reactions to Ideological Bias.
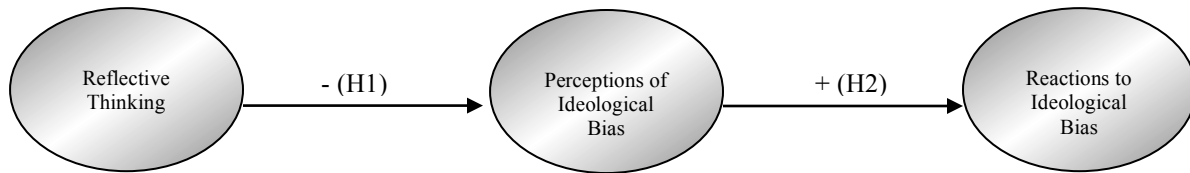
reduces the number of manifest indicators for each latent construct, has several advantages over using individual items as indicators, including greater reliability, more precise identification of the latent construct, and fewer parameter estimates (Kline, 2005; Little, Cunningham, Shahar, & Widaman, 2002).

The hypothesized model was estimated using structural equation modeling (SEM) with the LISREL 8.80 for Windows software package. SEM is a flexible data analytic technique that purifies manifest variables of error variance, thus generating truer tests of association between latent constructs of interest. Following generally accepted procedures for SEM, data analysis included testing the measurement model via confirmatory factor analysis prior to testing the hypothesized associations in a structural equation model (Kline, 2005). There was no missing data in the sample.

As compared to manifest variable statistical techniques (e.g., ordinary least squares hierarchical regression) that only allow piecemeal investigation of complex models, SEM permits the researcher to test overall global model fit in a single procedure. For both the confirmatory and structural models, model fit was assessed via four common fit indices: (a) model chi-square, (b) the root mean square error of approximation (RMSEA), (c) the non-normed fit index (NNFI), and (d) the comparative fit index (CFI) (Kline, 2005). Model chi-square is a basic statistic that assesses model fit, with good fit indicated by nonsignificant chi-square values. One weakness of the chi-square statistic is that it relies strongly on sample size, such that moderately large samples almost always produce statistically significant chi-square values even when model misfit is negligible. The additional three fit indices corrected for this shortcoming. The RMSEA statistic assesses amount of model misfit per degree of freedom, with RMSEA values below 0.08 indicating acceptable fit and values below 0.05 suggesting close fit (MacCallum, Browne, & Sugawara, 1996). The NNFI and CFI statistics indicate the degree to which the observed data fits the specified model better than a null model (i.e., with no specified relationships between latent constructs); for these fit indices, values above 0.95 indicate close model fit (Kline, 2005).

II. Results.

Descriptive statistics, including means, standard deviations, and Pearson product-moment correlations for all variables included in the study are reported in Table 1. All underlying assumptions of SEM were assessed; the data met these assumptions. Consistent with standard two-step procedures for SEM (Kline, 2005), confirmatory factor analysis first evaluated the fit between the manifest indicators and their respective latent constructs. The measurement model

demonstrated close model fit, $\chi^2(22) = 29.97$, $p > 0.05$, RMSEA = $0.042_{[90\% \text{ CI: } .000:.079]}$, NNFI = 0.97, CFI = 0.98, and examination of the modification indices did not suggest any necessary alterations to the model. Each of the indicators loaded on their respective latent constructs, and thus, the final measurement model, which includes loadings for the indicators and the corresponding residuals, is provided in Figure 2.

Figure 2. Final Measurement Model of Reflective Thinking and Ideological Bias.
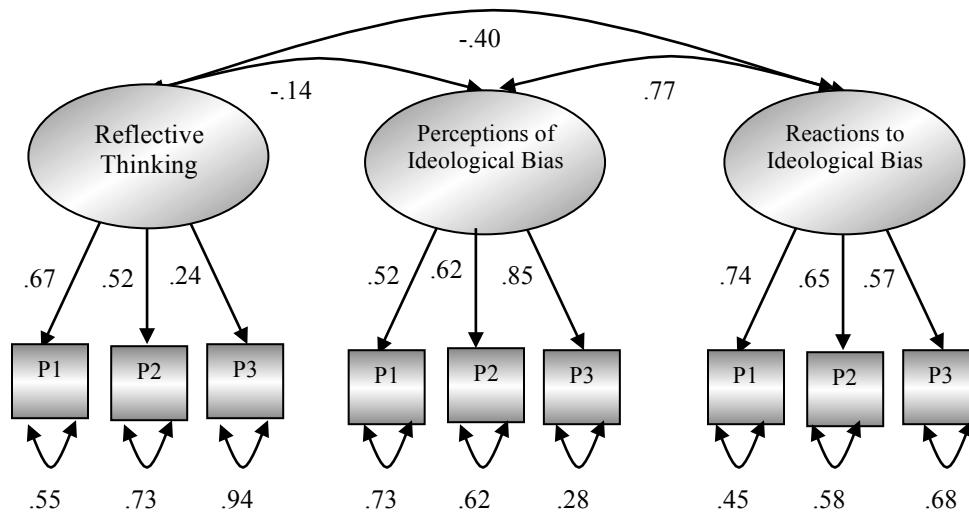
Note. P1, P2, P3 = parcel 1, parcel 2, parcel 3. All factor loadings and latent covariance estimates are standardized and significant at $p < 0.01$.

After establishing close fit for the measurement model, we tested the hypothesized regression paths in a structural equation model (see Figure 1). The structural model demonstrated close fit, $\chi^2(23) = 38.56$, $p < 0.05$, RMSEA = $0.054_{[90\% \text{ CI} = .000:.087]}$, NNFI = 0.95, CFI = 0.97. The model revealed significant main effects between reflective thinking and perceptions of ideological bias. That is, as expected, reflective thinking (Unstandardized $B = -0.25_{[95\% \text{ CI} = -0.48:-0.01]}$, Standardized $\beta = -0.24_{[95\% \text{ CI} = -0.51:-0.03]}$, $p < 0.05$) negatively predicted perceptions of

**Table 1. Descriptive Statistics and Bivariate Correlations Among Latent Constructs (N = 187).**

Variables	M	SD	1	2	3
1. Reflective Thinking	4.61	1.24	--		
2. Perceptions of Ideological Bias	2.86	0.88	-0.19**	--	
3. Reactions to Ideological Bias	2.98	1.11	-0.25**	0.54**	--

Note. ** Correlations significant at $p < 0.01$.

ideological bias, supporting the first hypothesis. In other words, low critical thinking scores lead to increases in perceptions of ideological bias among faculty. The model also revealed significant main effects between perceptions of ideological bias and reactions to ideological bias. As predicted, students' perceptions of ideological bias (Unstandardized $B = 0.77_{[95\% \ CI = 0.64:0.90]}$, Standardized $\beta = 0.79_{[95\% \ CI = 0.67:0.91]}$, $p < 0.01$) positively predicted their reactions to ideological bias, supporting the second hypothesis. Students who perceived a higher degree of ideological bias among faculty tended to also react to those perceptions of bias. In addition to direct effects on students' reactions to ideological bias, the model also leaves the possibility that reflective thinking indirectly predicts reactions to ideological bias via perceptions of ideological bias. A Sobel test failed to reveal the presence of an indirect effect for reflective thinking ($z = -0.31$, $p > 0.05$). Together, the direct effects explained 62% of the variance in students' reactions to ideological bias. See Figure 3 for the final structural model.

Figure 3. Structural Model Predicting Students' Perceptions and Reactions to Ideological Bias.

$$R^2 = .62$$
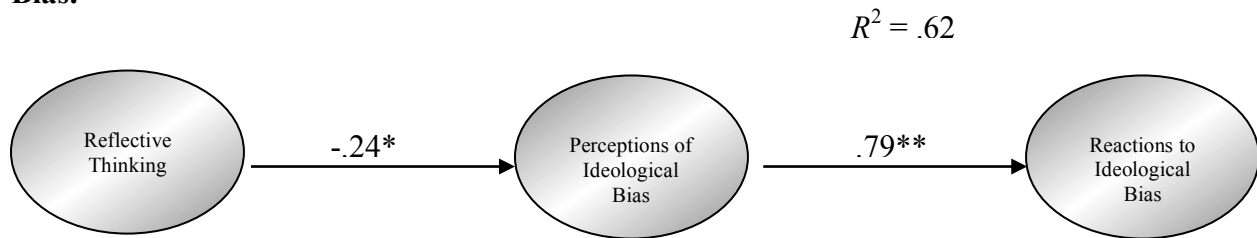
Note. All parameter estimates are standardized. **$p < 0.01$ *$p < 0.05$

III. Discussion.

The primary goal of the present study was to test a model of students' reflective thinking, perceived ideological bias among university faculty, and reactions to ideological bias in the college classroom. The results suggest that lower degrees of reflective thinking on the part of students heighten their perceptions of ideological bias among university faculty. These perceptions then lead students to adversely react to the presence of such ideological bias in the classroom. This finding supports Fisler and Foubert's (2006) argument that students' perceptions of their instructors' biases and how students react to those biases may be partially dependent on these students themselves.

This study's findings have important implications for education professionals, supporting King and Baxter Magolda's (1996) integrated perspective on learning which views cognitive and affective dimensions of development as related components. King (2000) argues that educators who feel their only responsibility is to sharpen their students' intellect, and that the responsibility to foster alternate forms of development lies in others' hands, are doing their students a disservice, as poorly developed skills in one area can inhibit the development of another. King and Baxter Magolda (1996) point out, such a "disjointed approach has not yielded the results educators, legislators, students and parents hope will prepare young adults for effective citizenship in today' complex culture" (p. 172). According to King (2000), educators who want to help students understand their own beliefs and make effective knowledge claims must give up the "I pitch you catch" (p. 24) approach to education.

Freire (2002) refers to King's "pitch/catch" style of education as *banking* education. In *banking* education, "the teacher issues communiqués and makes deposits which the students patiently receive, memorize and repeat" (Freire, p. 72). To educators practicing *banking* education, knowledge becomes a gift bestowed on those they consider to know nothing. Such an approach to teaching does not foster cognitive development. In terms of the RJM, *banking* education may arrest development in the *pre-reflective* stages where an individual relies heavily on the opinions of authority figures (King & Kitchener, 1994). According to Freire (2002), *banking* education limits a student's creativity and the process of free inquiry. An alternative teaching method Freire (2002) recommends is the concept of *problem-posing* education. *Problem-posing* education does not draw sharp distinctions between student and teacher. *Problem-posing* education encourages a process in which students are no longer docile listeners, but rather "critical co-investigators in dialogue with the teacher" (Freire, p. 81). Freire explains the role of the *problem-posing* educator is to create, together with the student, an environment where true knowledge can be found. *Problem-posing* education is "education as the practice of freedom—as opposed to education as the practice of domination" (Freire, p. 81). Baxter Magolda (2000) also advocates for partnering with students in the process of meaning making, stressing this approach as being essential to holistic learning. Baxter Magolda asserts that it is by joining students as partners that educators can understand their individual process of meaning making and gain the opportunity to "map the pathways to self-authorship from particular students' starting points on the journey" (p. 98).

Although this study suggests that the perception of some ideological bias may be in the eye of the beholder, there are certainly cases where such bias is genuine and instructors break ethical standards. According to the Bureau of Labor Statistics (Occupational Outlook Handbook, 2010), in 2008 the U.S. had 1.7 million individuals employed as post-secondary educators. With this number of professional educators there will certainly be cases where individuals over-step their bounds and treat students inappropriately for ideological reasons. Contrary to the view that genuine ideological bias may be a serious problem in academia, Smith, Mayer, and Fritschler (2008) argue that ideology and serious discussion of political issues is, in fact, largely absent from the modern university classroom. They believe that colleges and universities, in contrast to their nineteenth century counterparts, have abandoned civic education and the teaching of democratic citizenship to the detriment of society. Smith, Mayer, and Fritschler contend that this change is due, in part, because faculties are averse to possible ideological conflict in the classroom. Refocusing education to help foster cognitive development may help address ideological bias in the classroom, both real and merely perceived, and facilitate educators in helping students reflect on issues of civic importance. One way to accomplish this may be to change instructors' views of teaching from what King (2000) describes as the pitch/catch model of teaching toward education that is a partnership between the student and instructor with a goal toward constructing knowledge together, as both Freire (2002) and Baxter Magolda (2000) suggest.

The findings of the present study also highlight a need for alternative methods of assessing reflective thinking. The RCI was found to have a relatively low reliability. Importantly, the large sample size (Thorndike, 2005; Streiner, 2003) and application of structural equation modeling remedied this shortcoming (Kline, 2005; Little, Lindenberger, & Nesselroade, 1999). Unlike manifest variable statistical tests (e.g., ordinary least squares hierarchical regression), SEM purifies manifest variables of error variance and ultimately generates truer tests of association between latent constructs of interest. Indeed, Little, Lindenberger, and Nesselroade

aptly state that low reliability for a particular measure does not necessarily indicate that the measure lacks validity. One would expect low reliability to reduce variance explained in the dependent variable and thus generate Type-II error (i.e., failing to reject a false null hypothesis) (Kline, 2005; Ledbetter, 2009), yet the reflective thinking construct identified here did explain a significant portion of variance in students' perceptions of ideological bias. Future studies using latent variable techniques (e.g., structural equation modeling) would mitigate further against these concerns; however, additional validity testing of the RCI or the development of alternative measures to assess reflective thinking is indeed warranted. Until more development is done on the RCI or an alternate instrument is validated, training and certification should be offered on the Reflective Judgment Interview (King & Kitchener, 1994), the semi-structured interview employed in theory development and validation studies of the RJM. Additionally, future research would benefit from an RCI that is publicly available to facilitate research on its development. If the RCI cannot be shown to consistently deliver higher reliability estimates, it will not likely be useful to studies that employ small sample sizes and manifest variable statistical analysis.

Many students come to college with the belief that knowledge is certain and that there are definite answers to all questions which may be identified and memorized. Aiding students in learning to critically examine information and understand that knowledge claims are not just something possessed by authority figures but are context dependent and should be evidence based has been an acknowledged goal of education for decades (Dewey, 1933). The current study has illustrated that this goal is not only beneficial for the students in their epistemological development, but possibly for the faculty and the institution as well. Teaching in a manner that addresses cognitive growth, as Fisler and Foubert (2006) suggest, may help improve the classroom experience. In the long term, to do so may also improve the public perception that academia has an inappropriate liberal bias (A special report, 2004). In a time of constricting public support for higher education, addressing this perception may be more important than ever.

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