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Two studies (N = 420) were conducted to develop and validate the instructional dissent scale (IDS) for use in the college classroom. Participants in study 1 were 210 students who completed the IDS pilot inventory which was subjected to an exploratory factor analysis yielding three distinct factors of dissent (i.e., expressive, rhetorical, vengeful). Concurrent validity support was provided as perceived teacher misbehaviors were associated positively with students' likelihood of engaging in dissent and students reported fewer learning outcomes when they dissented. Participants in study 2 were from a different sample of 210 students who completed the IDS along with measures of classroom justice and student challenge behavior. A confirmatory factor analysis provided support for the hypothesized item loadings confirming an expected three-factor solution. Additional concurrent and discriminant validity support were provided as scores on the IDS were associated inversely with perceived classroom justice and associated positively with student challenge behavior. Collectively, the results from both studies suggest that the IDS is a reliable and valid self-report measure of student dissent.

Keywords: Instructional Dissent; Student Dissent; Teacher Misbehavior; Classroom Justice; Challenge Behavior

Ideally, the college classroom is an environment that fosters learning and promotes effective and appropriate communication between an instructor and students. Realistically however, student expectations may remain unfilled by instructors, and students' communicative responses to dissatisfaction may be contrary to the primary goal of learning (Kearney, Plax, & McPherson, 2006). For instance, Burroughs (1990) revealed that approximately 16–20% of college students communicate active resistance to learning which frequently involves an outright rejection of an instructor's request (Burroughs, 2007). Similarly, research suggests that students may engage in uncivil behaviors that are considered rude or disrespectful (Tiberius &

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Flak, 1999) which impede their learning (Boice, 1996) and restrict teaching capabilities (Feldmann, 2001). Such student incivilities include cheating, talking, using a cell phone, making offensive remarks, being tardy, cutting class, and talking in class (Paik & Broedel-Zaugg, 2006; Plax & Kearney, 1999) which encumber a learning environment (Boice, 1996; Kearney & Plax, 1992). Other research suggests that students may actively oppose an instructor's request (Burroughs, Kearney, & Plax, 1989), challenge an instructor's authority or rules (Simonds, 1997), or repeatedly nag an instructor when they do not get their way (Dunleavy & Myers, 2008). Clearly, then, the college classroom does not always foster ideal communication between an instructor and student when dissatisfaction is present.

The way in which an instructor communicates responsiveness and understanding is crucial in determining student (dis)satisfaction in higher education (Agbetsiafa, 2010; Douglas, McClelland, & Davies, 2008; Kobalia & Garakanidze, 2010). Moreover, university students report that communication (or lack thereof) is the main source of classroom conflict (Argon, 2009). To prevent classroom conflict, research suggests that instructors can communicate warmth and sensitivity to students, seek student input, and use interactive teaching approaches (Meyers, 2003). However, some classroom conflict is simply unavoidable. When students feel slighted, they have a tendency to attempt to punish instructors via communicative responses (Griffin, 2004). One type of student communicative response to dissatisfaction is instructional dissent.

Instructional Dissent

Dissent refers to the expression of disagreement or contradictory opinions concerning policies or practices (Kassing, 1997). Instructional dissent, then, occurs when students express their disagreements or complaints about class-related issues. Although much research has examined student misbehaviors, which at times can be similar to dissent (for a review see Kearney et al., 2006), to date, only two published studies have examined instructional dissent in the college classroom. In a qualitative study examining students' classroom justice experiences and responses, Horan, Chory, and Goodboy (2010) discovered that student dissent was the most common behavioral response students used after experiencing classroom injustice (i.e., distributive, procedural, interactional). Specifically, 52.1% of Horan et al.'s sample reported that when they experienced unfairness in their classroom, they dissented to the instructor, other instructors, coaches, advisors, the department chairperson, family members, friends, other students, or during course evaluations. Most dissent was directed toward the instructor "asking for explanations of the instructor's actions, and trying to persuade the instructor to act in a manner the students perceived as fair" (p. 469).

In another qualitative study, Goodboy (2011) examined the triggering agents of instructional dissent, the recipients of dissent messages, and the types of dissent communicated by college students, and reported three major conclusions. First, Goodboy found that a variety of triggering agents cause students to dissent. These

agents include (in rank order of frequency) unfair testing, unfair grading, teaching style, instructor offensiveness, classroom policies, violating the syllabus, instructor indolence, lack of feedback, and group members slacking. All of these triggering agents (with the exception of group members slacking) were attributed to the instructor as the cause of dissent. Second, a majority of this dissent was directed toward the class instructor, classmates, friends, and family (among other receivers). Third, three types of instructional dissent were revealed through student narratives including expressive dissent (i.e., students venting and expressing their feelings in an attempt to feel better), rhetorical dissent (i.e., students attempting to persuade the instructor to correct a perceived wrongdoing in the course), and vengeful dissent (i.e., students attempting to seek revenge by communicating negative messages about the instructor's reputation or practices).

Of interest to the current study are Goodboy's (2011) qualitative findings concerning expressive, rhetorical, and vengeful dissent. As Horan et al. (2010) noted, "measures of students' behavioral reactions should include assessments of student dissent…the dissent category, in particular, appears to be an area ripe for future research as it was the most commonly reported behavior response [to injustice]" (p. 470). Similarly, Goodboy contended that "it would prove useful to create a psychometric measure for expressive, rhetorical, and vengeful dissent." Goodboy further explained that "until a valid and reliable instructional dissent measure is constructed, researchers cannot begin to quantitatively examine these student communication behaviors in a programmatic fashion." Therefore, the purpose of this research was to develop a quantitative measure of instructional dissent that operationalizes expressive, rhetorical, and vengeful dissent and to provide evidence of validity for this new measure.

Study 1: Measure Development and Initial Validation

Concurrent Validity

Validity refers to whether or not a measure is actually measuring what it purports to measure (Kerlinger, 1986). One way to validate a new measure is to demonstrate concurrent validity by observing "the degree to which a test score is related to some criterion measure obtained at the same time" (Cohen & Swerdlik, 2005, p. 163). When a new measure correlates in a theoretically meaningful way with a related and validated measure, concurrent validity support is provided. This study focused on establishing concurrent validity by correlating the pilot inventory of the IDS with other established measures that should be theoretically related based on previous research. Two sets of variables were selected for concurrent validation: teacher misbehaviors and traditional learning outcomes.

Teacher Misbehaviors

Occasionally, instructors engage in teaching practices that may upset or demotivate students. These practices, known as teacher misbehaviors, refer to any classroom

behavior that interferes with instruction and learning (Kearney, Plax, Hays, & Ivey, 1991). Kearney et al. discovered 28 different misbehaviors that instructors communicate in the classroom. Results of a factor analysis revealed that a majority of these misbehaviors loaded under three general factors including teacher *indolence* (i.e., being lazy and unprepared), *incompetence* (i.e., lacking effective teaching skills and not showing concern for students), and *offensiveness* (i.e., communicating aggression and hostility). Kearney et al. found that incompetent instructors may be confusing, apathetic, unfair, and lack expertise; indolent instructors may be tardy, disorganized, return grades late, and deviate from the syllabus; and offensive instructors may degrade or verbally abuse students, use sarcasm or putdowns, and/or show favoritism. Of all 28 misbehaviors, Kearney et al. found that instructors most commonly misbehave by giving boring lectures, confusing/unclear lectures, and unfair tests. Students typically attribute internal causes for teacher misbehaviors and assign fault to the teacher instead of assuming external factors are to blame (Kelsey, Kearney, Plax, Allen, & Ritter, 2004).

Research on teacher misbehaviors suggests that a host of deleterious instructional outcomes result from these bad teaching practices. For instance, when teachers misbehave students become demotivated (Zhang, 2007), report less affective learning (Banfield, Richmond, & McCroskey, 2006), participate less and resist instructor's requests (Goodboy & Bolkan, 2009), and are unmotivated to communicate with the instructor (Goodboy, Myers, & Bolkan, 2010). Furthermore, misbehaving teachers are seen as less credible and nonimmediate (Thweatt & McCroskey, 1996, 1998) as well as less assertive and responsive (Wanzer & McCroskey, 1998).

As McPherson, Kearney, and Plax (2006) noted, "when it comes to misbehavior, college students apparently follow their teacher's leads." (p. 215). Goodboy (2011) found that this was the case as student narratives revealed certain teacher misbehaviors (i.e., unfair testing, unfair grading, teaching style issues, offensiveness, and indolence) were causes of student dissent responses. However, these results which were derived from qualitative data were not statistically demonstrated. Therefore, to establish concurrent validity for a quantitative measure of dissent, the following hypothesis is proposed:

> H1: Perceived teacher misbehaviors (i.e., indolence, incompetence, offensiveness) are associated positively with student reports of instructional dissent.

Traditional Learning Outcomes

Previous instructional communication research has assessed student learning in terms of content and feelings through multiple operationalizations instead of a single operationalization. Multiple operationalizations provide a better measurement of student learning than typical one or two-item learning scales (Frisby & Martin, 2010). Previous instructional research has examined four traditional learning outcomes in tandem including cognitive learning, affective learning, state motivation, and student communication satisfaction. (e.g., Bolkan & Goodboy, 2010; Goodboy & Bolkan, 2009; Goodboy & Myers, 2008). Cognitive learning ranges from the simple retention

of information to the complex synthesis of material (Bloom, Hastings, & Madaus, 1971). Affective learning involves student feelings, emotions, and degrees of acceptance toward the subject matter (Krathwohl, Bloom, & Masia, 1964). Two additional affective outcomes include state motivation, which refers to student attempts to obtain academic knowledge or skills from classroom activities by finding these activities meaningful (Brophy, 1987), and student communication satisfaction, which refers to contextual satisfaction resulting from the fulfillment of student concerns through conversations with an instructor (Goodboy, Martin, & Bolkan, 2009).

As Goodboy (2011) revealed, student dissent is frequently a response to unfulfilled expectations in the classroom that are linked to student learning (e.g., grading and testing). Therefore, students who dissent are experiencing displeasure with their classroom outcomes and should report less motivation, affective and cognitive learning, and communication satisfaction. To establish additional concurrent validity, the following hypothesis is posited:

> H2: Student learning outcomes (i.e., learning indicators, state motivation, student communication satisfaction, affective learning) are associated inversely with student reports of instructional dissent.

Method

Participants

The participants in study one were 210 undergraduate students (94 men, 114 women, 2 unreported) enrolled in one of five introductory communication studies courses (1 large lecture, 4 public speaking sections), attending a midsized northeastern university. Participants' ages ranged from 18 to 25 years ($M = 19.38$, $SD = 1.47$). A majority of participants reported on courses that were not a part of their major (59 major courses, 147 nonmajor courses, 4 unreported). One hundred and six ($n = 106$) participants reported on their classroom experience in a course of 30 or less students, 34 participants reported on a class size of 31 to 100 students, 55 participants reported on a class size between 101–200 students, and 15 participants reported on a class with greater than 200 students. Most of the participants had not taken a class with the instructor in a previous semester ($n = 191$).

Procedures and Measurement

Participants completed a questionnaire during the final week of the semester in reference to the class they attended immediately before data collection (Plax, Kearney, McCroskey, & Richmond, 1986). The survey included five measures: a pilot version of the Instructional Dissent Scale (see Measure Development section), the Teacher Misbehaviors Scale (Kearney et al., 1991), Student Communication Satisfaction Scale (SCSS; Goodboy et al., 2009), the Revised Cognitive Learning Indicators Scale (Frymier & Houser, 1999), the Student Motivation Scale (Richmond, 1990), and the Affective Learning Scale (McCroskey, Richmond, Plax, & Kearney, 1985).

The *Teacher Misbehavior Scale* is 28 items and measures how frequently an instructor uses the teacher misbehaviors proposed by Kearney et al. (1991). This scale uses a 5-point Likert-type response format, ranging from (0) *never* to (4) *very often*. Previously, three factors have been identified for this scale which comprise 21 of the 28 items (Kearney et al., 1991): offensiveness (sarcasm and putdowns, verbal abuse, unreasonable and arbitrary rules, sexual harassment, negative personality, and favoritism or prejudice), indolence (absent, tardy, unprepared or disorganized, deviates from syllabus, late returning work, and information underload), and incompetence (confusing or unclear lectures, apathetic to students, unfair testing, boring lectures, information overload, does not know subject matter, foreign or regional accents, inappropriate volume, and bad grammar or spelling). Previous reliability coefficients have been .67 for indolence, .83 for incompetence, and .80 for offensiveness (Kelsey et al., 2004). In this study, the obtained Cronbach alphas for the subscales were .81 for indolence ($M = 4.72$, $SD = 4.26$), .86 for incompetence ($M = 7.80$, $SD = 6.84$), and .82 for offensiveness ($M = 3.70$, $SD = 4.34$).

The *SCSS* is eight items and measures the degree to which students are satisfied when communicating with an instructor. This scale uses a 7-point Likert response format ranging from (1) *strongly disagree* to (7) *strongly agree*. Previous alpha reliabilities of .95 and .98 have been reported for the summed scale (Bolkan & Goodboy, 2010; Goodboy et al., 2009). In this study, the obtained Cronbach alpha was .95 ($M = 37.38$, $SD = 12.37$).

The *Revised Cognitive Learning Indicators Scale* is seven items and asks participants to report on behaviors or activities associated with cognitive learning. Responses were solicited using a 5-point Likert-type scale ranging from (0) *never* to (4) *very often*. Previous reliability coefficients ranging from .83 to .88 have been reported for the summed scale (Frymier & Houser, 1999; Wanzer, Frymier, & Irwin, 2010). In this study, the obtained Cronbach alpha was .84 ($M = 15.69$, $SD = 5.89$).

The *Student Motivation Scale* is five items and asks participants to report on their levels of state motivation toward a specific course and instructor. Responses were solicited using a 7-point bipolar adjective scale. Previous reliability coefficients of .93 and .94 have been reported for the summed scale (Goodboy & Bolkan, 2009; Richmond, 1990). In this study, the obtained Cronbach alpha was .92 ($M = 21.34$, $SD = 8.50$).

The *Affective Learning Scale* is 12 items and asks participants to report on their levels of affect for the course content, course instructor, and behaviors recommended in the course. Responses were solicited using three 7-point bipolar adjective subscales. Previous reliability coefficients of .95 and .96 have been reported for the summed scale (Ellis, 2000; Goodboy & Myers, 2008). In this study, the obtained Cronbach alpha was .95 ($M = 58.12$, $SD = 17.87$).

Measure Development

Using procedures consistent with standard psychometric scale development (Cohen & Swerdlik, 2005), a preliminary pool of 45 items was created based on inductively

derived student accounts of instructional dissent (Goodboy, 2011). Specifically, 18 items were created for expressive dissent, 15 items for rhetorical dissent, and 12 items for vengeful dissent. These items were taken directly from written narratives of student dissent episodes. To avoid acquiescence response bias, 6 of the items were inversely worded (i.e., to not reflect the communication of dissent) and required recoding. These 45 items were administered to participants along with the other scales used for validation purposes. The response format for these items utilized a 5-point Likert-type format ranging from *never* (0) to *very often* (4).

The initial pool of items were examined by another instructional communication researcher for clarity purposes in order to ensure face validity or "a judgment concerning how relevant the test items appear to be" (Cohen & Swerdlik, 2005, p. 158). After revising the wording of some of the items based on Goodboy's (2011) conceptualization of instructional dissent types, the revised modified 45 items were included in the questionnaire for pilot testing. All items from the preliminary pool were subjected to an exploratory factor analysis (EFA; using principal axis factoring with varimax rotation). The number of factors retained from the EFA were determined by four criteria. Each factor needed to (a) have a minimum Eigenvalue of 1.0, (b) account for at least 5% of the variance, (c) yield a loading of .60 on one factor but less than .40 on another factor, and (d) not cross load on other factors (Hatcher, 1994; McCroskey & Young, 1979).

Results

Factor Analysis and Reliability

The Kaiser–Meyer–Olkin test of sampling adequacy (.93) and Bartlett's test of sphericity (χ^2 (990) = 7461.738, $p < .001$) indicated that factor analysis was appropriate for the data in the preliminary item pool. Based on previous procedures consistent with instructional communication scale development, several of the loadings that were borderline (close to .60) but still had clean loadings (e.g., .57) were retained if they did not have a secondary loading that exceeded 50% of the primary loading (King, Schrodt, & Weisel, 2009). Items that did not pass the 60/40 test or items that cross-loaded were omitted from further analysis. The final iteration consisted of 22 of the original 45 items, producing a 3-factor solution accounting for 67.70% of the variance.

Factor 1 (expressive dissent) accounted for 42.57% of the variance (Eigenvalue = 9.37; $M = 13.47$, $SD = 10.67$) and consisted of 10 items that yielded a Cronbach alpha of .96. Factor 2 (vengeful dissent) accounted for 15.05% of the variance (Eigenvalue = 3.31; $M = 6.23$, $SD = 5.25$) and consisted of 6 items that yielded a Cronbach alpha of .86. Factor 3 (rhetorical dissent) accounted for 10.07% of the variance (Eigenvalue = 2.22; $M = 3.28$, $SD = 4.63$) and consisted of 6 items that yielded a Cronbach alpha of .89. Items and factor loadings are presented in Table 1.

Table 1   EFA Factor Loadings for Instructional Dissent Scale (IDS)

Items	Factor 1	Factor 2	Factor 3 (*M*, *SD*)
Expressive Dissent			
1. I complain to others to express my frustrations with this course	.86	.21	.01 (1.66, 1.33)
2. I express my disappointment about this course to other people because it helps me feel better	.81	.26	.01 (1.36, 1.34)
3. I talk to other students to see if they also have complaints about this teacher	.75	.21	.10 (1.48, 1.31)
4. I complain about my teacher and course because it makes me feel better	.78	.27	.01 (1.12, 1.21)
5. I attempt to feel better about my frustrations in this class by communicating with other people	.87	.14	.10 (1.39, 1.20)
6. I talk to other students when I am annoyed with my teacher in hopes that I am not the only one	.80	.24	.17 (1.50, 1.30)
7. I try to feel better about this course by explaining my aggravations to others	.83	.21	.10 (1.26, 1.23)
8. I complain about my teacher to get my frustrations off of my chest	.79	.26	.07 (1.14, 1.23)
9. I criticize my teacher's practices to other students because I hope they share my criticism	.80	.25	.13 (1.12, 1.16)
10. I talk to other students so we can discuss the problems we have in class	.74	.14	.16 (1.43, 1.22)
Rhetorical Dissent			
11. I tell my teacher when I disagree with him/her so I can do better in the course	.06	.21	.76 (0.83, 1.03)
12. I voice my concerns to my teacher to make sure I get the best grade possible	.03	.09	.70 (1.22, 1.20)
13. If want my teacher to remedy my concerns, I complain to him/her	.21	.26	.65 (0.74, 1.05)
14. I voice my opinions to my teacher when there is a disagreement because I want to do better in the course	.06	.05	.80 (1.16, 1.18)
15. I express my disagreements with my teacher because I want something to change in the course for the better	.12	.10	.74 (0.94, 1.12)
16. I have no problem telling my teacher what I need him/her to do for me to succeed in the course	.02	−.01	.56 (1.35, 1.30)
Vengeful Dissent			
17. I hope to ruin my teacher's reputation by exposing his/her bad practices to others.	.26	.72	.11 (0.58, 0.96)
18. I talk to other teachers and let them know my current teacher is inferior	.19	.57	.15 (0.54, 0.95)
19. I hope one day my teacher gets fired as a result of my criticism of him/her	.22	.71	.09 (0.53, 0.97)
20. I spread negative publicity about my teacher so that everyone knows how bad he/she is	.32	.75	.13 (0.69, 1.07)
21. I make sure that everyone knows how awful my teacher is to get revenge for the bad semester I had	.31	.74	.13 (0.53, 0.94)
22. I seek revenge on my teacher by trying to get him/her in trouble	.14	.74	.10 (0.42, 0.88)

Note. Principal Axis Factoring with Varimax Rotation. Response format ranging from (0) never to (4) very often.

Concurrent Validity

Hypothesis one predicted that all three types of teacher misbehaviors (i.e., indolence, incompetence, offensiveness) would be triggering agents of instructional dissent. Results of Pearson correlations revealed that teacher indolence, incompetence, and offensiveness were associated positively with expressive, rhetorical, and vengeful dissent (with correlation coefficients ranging from .22 to .65). Vengeful dissent was correlated most strongly with all three misbehavior types (ranging from .55 to .67). Correlations among all variables are presented in Table 2.

Multiple regression analyses were computed to further ascertain the relationships between teacher misbehaviors and dissent types. Three separate multiple regression analyses were computed with the three types of teacher misbehaviors (i.e., indolence, incompetence, offensiveness) serving simultaneously as the independent variables and each type of dissent serving as a dependent variable. A significant model was obtained for *expressive dissent*, $F(3, 206) = 57.91$, $p < .001$, $R^2 = .46$, with teacher incompetence ($\beta = .47$, $p < .001$) and teacher offensiveness ($\beta = .24$, $p < .01$) serving as a significant predictors. A significant model was obtained for the *rhetorical dissent*, $F(3, 205) = 8.60$, $p < .001$, $R^2 = .11$, with teacher indolence ($\beta = .20$, $p < .05$) and teacher incompetence ($\beta = .21$, $p < .05$) serving as significant predictors. A significant model was obtained for the *vengeful dissent*, $F(3, 206) = 56.07$, $p < .001$, $R^2 = .45$, with teacher incompetence ($\beta = .29$, $p < .001$), teacher indolence ($\beta = .22$, $p < .01$), and teacher offensiveness ($\beta = .26$, $p < .01$), all serving as significant predictors. Therefore, results suggest that all three types of instructional dissent are perpetrated by teacher misbehaviors, lending concurrent validity support by corroborating the qualitative findings discovered by Goodboy (2011) that suggest teacher misbehaviors are a primary source of student dissent.

Hypothesis two predicted that students who engage in dissent would report fewer learning outcomes. Results of Pearson correlations revealed that expressive dissent

Table 2   Correlations Between Variables in Study 1

Variables	1	2	3	4	5	6	7	8	9
Instructional Dissent Scale (IDS)									
1. Expressive (10 items)	—								
2. Rhetorical (6 items)	.23†	—							
3. Vengeful (6 items)	.52†	.29†	—						
Teacher Misbehaviors									
4. Indolence	.46†	.30†	.55†	—					
5. Incompetence	.65†	.30†	.59†	.58†	—				
6. Offensiveness	.57†	.22†	.60†	.63†	.67†	—			
Learning Outcomes									
7. Comm Satisfaction	−.61†	−.02	−.49†	−.49†	−.58†	−.52†	—		
8. Learning Indicators	−.07	.19**	−.13*	−.13*	−.15*	−.03	.38†	—	
9. State Motivation	−.52†	.00	−.31†	−.33†	−.49†	−.29†	.65†	.43†	—
10. Affective Learning	−.66†	−.07	−.48†	−.44†	−.58†	−.49†	.75†	.42†	.79†

Note. *p < .05; **p < .01; †p < .001. One-tailed.

was correlated inversely with student communication satisfaction ($r = -.61$, $p < .001$), motivation ($r = -.61$, $p < .001$), and affective learning ($r = -.61$, $p < .001$). Rhetorical dissent was correlated positively with learning indicators ($r = .19$, $p < .01$). Vengeful dissent was correlated inversely with student communication satisfaction ($r = -.49$, $p < .001$), motivation ($r = -.31$, $p < .001$), learning indicators ($r = -.13$, $p < .05$), and affective learning ($r = -.48$, $p < .001$). Collectively, students reported that when learning outcomes were low, they were more likely to engage in expressive and vengeful dissent. Interestingly, rhetorical dissent was only related to cognitive learning, suggesting that students who wanted to solicit change for a perceived wrongdoing reported participating in more activities that reflect cognitive learning. Therefore, more concurrent validity support was established for the IDS.

Study 2: Concurrent and Discriminant Validation

Kline (2011) suggested that researchers should replicate the factor structure of a measure "if it is ever to represent anything beyond a mere statistical exercise" (p. 94). Therefore, study two was conducted to replicate the factor structure in study one in a different sample using confirmatory factor analysis to validate the dimensionality of the measure (Levine, 2005; Levine, Hullett, Turner, & Lapinski, 2006). Moreover, study two attempted to provide additional concurrent validity support for the IDS along with discriminant validity support.

Concurrent Validity

As previously stated, concurrent validity involves correlating a new measure with other validated measures in a way that is theoretically expected based on previous research. Classroom justice, which refers to student perceptions of fairness regarding outcomes or processes in the classroom (Chory-Assad & Paulsel, 2004b) is another salient variable in the study of instructional dissent. Similar to justice/fairness concerns in the organizational context (Cropanzano & Greenberg, 1997), students expect distributive justice (i.e., the grades that are given are fair), procedural justice (i.e., the processes used to arrive at the grades are fair), and interactional justice (i.e., the treatment and communication with students is fair; Chory, 2007). Indeed, college instructors are aware that student justice perceptions matter and are most concerned with promoting interactional justice in their classrooms (Horan & Myers, 2009). When students perceive classroom injustice, they are more likely to engage in direct and indirect student aggression (Chory-Assad, 2002; Chory-Assad & Paulsel, 2004a, b) and report less motivation and affective learning (Chory-Assad, 2002). Students are more likely to resist instructor compliance attempts when they perceive interactional injustice (Paulsel & Chory-Assad, 2005). Also, instructors who are perceived as credible (Chory) and use expert and referent power (Paulsel, Chory-Assad, & Dunleavy, 2005) enhance students' perceptions of justice. Importantly, Horan et al. (2010) qualitatively discovered that student dissent was the most

common reaction to perceived injustice in the classroom. Therefore, to establish additional concurrent validity for the IDS, the following hypothesis is proposed:

> H3: Perceived classroom justice (i.e., distributive, procedural, interactional) is associated inversely with student reports of instructional dissent.

Discriminant Validity

Discriminant validity is also a concern in measurement because scores from a new measure should correlate in a theoretically meaningful direction but should not be isomorphic with scores from similar measures that operationalize distinct constructs. Campbell and Fiske (1959) explained that "tests can be invalidated by too high correlations with other tests from which they were intended to differ" (p. 81). As Kerlinger (1986) noted, "discriminability means that one can empirically differentiate the construct from other constructs that may be similar" (p. 421).

One construct that is similar to instructional dissent is student challenge behavior. Challenge behaviors refer to strategies students use to "determine the boundaries of the classroom culture" (Simonds, 1997, p. 489). Simonds discovered that students test classroom boundaries by using four types of challenge behavior including evaluation challenges (i.e., questioning testing procedures and grades), procedural challenges (i.e., challenging classroom rules and norms), practicality challenges (i.e., questioning the relevance of classroom decisions), and power challenges (i.e., attempting to influence the instructor's or students' behavior). Jones and Simonds (1994) found that challenge behavior is relatively low in the beginning of the semester but increases as the semester progresses. Jones and Simonds also noted that evaluation challenges emerge later in the semester whereas power challenges occur relatively infrequently.

Research suggests that instructors who are confirming (Goodboy & Myers, 2008), immediate (Goodboy & Myers, 2009), clear (Simonds, 1998; Simonds, Jones, & Bedore, 1994), and demonstrate their expertise (Myers, 1999) receive less challenge behavior in their classrooms. Since student challenge behavior and student dissent are both negative reactions in the classroom, self-reports of both behaviors should be empirically related. However, these measures should not yield redundant relationships as different constructs. Therefore, to establish discriminant validity for the IDS, the following hypothesis is proposed:

> H4: Student challenge behavior (i.e., procedural, evaluative, power, practicality) is associated positively, but not isomorphically, with student reports of instructional dissent.

Method

Participants

The participants in study 2 were another 210 undergraduate students from a different sample (71 men, 136 women, 3 unreported) who were enrolled in one of 12 introductory or upper level communication studies courses (10 public-speaking

sections, 2 upper-level major courses) at the same midsized university. Participants' ages ranged from 18 to 30 years ($M = 19.90$, $SD = 1.58$). One hundred and five participants reported on courses that were required by their major (105 major courses, 100 nonmajor courses, 5 unreported). Participants reported on 105 female and 100 male professors (5 unreported). One hundred and twenty-one ($n = 121$) participants reported on their classroom experience in a course of 30 or less students, 44 participants reported on a class size of 31 to 100 students, 31 participants reported on a class size between 101 and 200 students, and 14 participants reported on a class with greater than 200 students. Most of the participants did not have a class with the instructor they reported on in a previous semester ($n = 180$).

Procedures and Measurement

Participants completed a questionnaire during the final week of the semester in reference to the class they attended immediately before data collection (Plax et al., 1986). The survey included the Instructional Dissent Scale developed in study one, the Classroom Distributive Justice and Procedural Justice Scales (Chory-Assad & Paulsel, 2004b), the Revised Classroom Interactional Justice Scale (Chory, 2007), and the Critical Incidents Frequency Report (Simonds, 1997), along with demographic items.

The *Distributive Justice Scale* is 12 items and measures student perceptions of fairness regarding the grades they receive or expect to receive in a course. Responses were solicited using a 5-point Likert-type response format ranging from (1) *extremely unfair* to (5) *extremely fair*. Previously reliability coefficients have been .92 (Chory-Assad & Paulsel, 2004b) and .88 (Chory, 2007). In this study, the obtained Cronbach was .93 ($M = 44.03$, $SD = 8.33$).

The *Procedural Justice Scale* is 15 items and measures student perceptions of fairness regarding classroom policies, scheduling, examinations, and expectations. Responses were solicited using a 5-point Likert-type response format ranging from (1) *extremely unfair* to (5) *extremely fair*. Previously reliability coefficients have been .94 (Chory-Assad & Paulsel, 2004b) and .91 (Chory, 2007). In this study, the obtained Cronbach was .91 ($M = 56.67$, $SD = 10.06$).

The *Revised Interactional Justice Scale* is eight items and measures student perceptions of fairness regarding their interpersonal treatment in the classroom. Responses were solicited using a 5-point Likert-type response format ranging from (1) *extremely unfair* to (5) *extremely fair*. Chory (2007) reported an internal reliability of .95. In this study, the obtained Cronbach was .95 ($M = 27.64$, $SD = 5.99$).

The *Critical Incidents Frequency Report* is 20 items and asks participants to report on their frequency of using four types of challenge behaviors. Responses were solicited using a 5-point Likert-type scale ranging from (0) *not at all* to (4) *very often*. This measure consists of four subscales that assess the frequency of procedural, evaluation, practicality, and power challenges in the classroom. Previous reliability coefficients ranging from .66 to .92 have been reported for the four subscales (Goodboy & Myers, 2009, Simonds, 1997). In this study, the obtained Cronbach alphas were .61 for practicality challenges ($M = 3.54$, $SD = 2.88$), .74 for evaluation

challenges ($M = 5.85$, $SD = 3.43$), .63 for power challenges ($M = 2.92$, $SD = 2.88$), and .89 for practicality challenges ($M = 4.15$, $SD = 4.38$).

Results

The three-factor structure of the IDS was examined using confirmatory factor analysis (CFA) with maximum likelihood estimation (ML) using LISREL 8.8 (Jöreskog & Sorbom, 2007). Based on the fit indices recommended by Kline (2011), model fit was assessed using the normal theory weighted least squares chi-square, Bentler comparative fit index (CFI), Steiger-Lind root mean square error of approximation (RMSEA), and the standard root mean square residual (SRMR). Values of the CFI above .90 and values of the SRMR less than .10 indicate a reasonably good fit (Kline) whereas RMSEA values above .10 suggest a poor fit (Diamantopoulos & Siguaw, 2009). Results of the CFA indicated that the three-factor model fit the data reasonably well (χ^2 (206) = 509.85, $p < .01$; CFI = .96, SRMR = .07, RMSEA = .08). All 22 items loaded significantly (factor loadings ranged from .64 to .93) on their respective factors at the $p < .01$ significance level. Obtained Cronbach alphas were .95 for expressive dissent ($M = 14.99$, $SD = 9.83$), .83 for rhetorical dissent ($M = 6.80$, $SD = 4.70$), and .94 for vengeful dissent ($M = 2.20$, $SD = 4.29$)

Hypothesis 3 predicted that perceived classroom justice is associated inversely with student reports of instructional dissent. Results of Pearson correlations revealed that expressive dissent was correlated inversely to student perceptions of classroom distributive ($r = -.45$, $p < .001$), procedural ($r = -.60$, $p < .001$), and interactional justice ($r = -.51$, $p < .001$). Rhetorical dissent was correlated inversely to perceived procedural justice ($r = -.14$, $p < .05$). Vengeful dissent was correlated inversely to perceived distributive ($r = -.25$, $p < .001$), procedural ($r = -.40$, $p < .001$), and interactional justice ($r = -.51$, $p < .001$). Correlations between all variables in study two are presented in Table 3.

Table 3   Correlations Between Variables in Study 2

Variables	1	2	3	4	5	6	7	8	9
Instructional Dissent									
1. Expressive	–								
2. Rhetorical	.23†	–							
3. Vengeful	.40†	.36†	–						
Classroom Justice									
4. Distributive	−.45†	−.05	−.25†	–					
5. Procedural	−.60†	−.14*	−.40†	.72†	–				
6. Interactional	−.51†	−.10	−.51†	.52†	.76†	–			
Challenge Behavior									
7. Procedural	.06	.33†	.28†	−.05	−.14*	−.07	–		
8. Evaluation	.50†	.41†	.38†	−.36†	−.42†	−.31†	.44†	–	
9. Power	.30†	.22**	.44†	−.26†	−.32†	−.29†	.46†	.46†	–
10. Practicality	.40†	.21**	.35†	−.27†	−.36†	−.27†	.27†	.42†	.52†

Note. *$p < .05$; **$p < .01$; †$p < .001$. One-tailed.

To further discern these relationships, three separate multiple regression analyses were computed with the three types of classroom justice (i.e., distributive, procedural, interactional) serving simultaneously as the independent variables and each type of dissent serving as a dependent variable. A significant model was obtained for the *expressive dissent*, $F(3, 201) = 38.34$, $p < .001$, $R^2 = .36$, with procedural justice as a significant predictor ($\beta = -.45$, $p < .001$). A significant model was not obtained for the *rhetorical dissent*, $F(3, 202) = 1.66$, $p = .18$, $R^2 = .02$. A significant model was obtained for the *vengeful dissent*, $F(3, 201) = 23.03$, $p < .001$, $R^2 = .26$, with interactional justice as a significant predictor ($\beta = -.47$, $p < .001$). Therefore, results suggest that both expressive and vengeful dissent are largely a function of students' perceptions of fairness in the classroom (and rhetorical dissent to a much lesser extent). These data provide additional concurrent validity support by quantitatively replicating the qualitative findings of Horan *et al.* (2010).

Hypothesis 4 posited that student challenge behavior is associated positively with student reports of dissent, but that these associations are not isomorphic. Results of Pearson correlations revealed that expressive dissent was correlated positively with evaluation ($r = .50$, $p < .001$), power ($r = .30$, $p < .001$), and practicality challenges ($r = .40$, $p < .001$). Rhetorical dissent was correlated positively with procedural ($r = .33$, $p < .001$), evaluation ($r = .42$, $p < .001$), power ($r = .22$, $p < .01$), and practicality challenges ($r = .21$, $p < .01$). Vengeful dissent was correlated positively with procedural ($r = .28$, $p < .001$), evaluation ($r = .38$, $p < .001$), power ($r = .44$, $p < .001$), and practicality challenges ($r = .35$, $p < .001$). Therefore, discriminant validity support was obtained, as these correlations were in the expected direction, but did not indicate isomorphism between the theoretically similar but distinct measures. These results suggest that instructional dissent is not redundant with student challenge behavior.

Discussion

The purpose of these studies was to develop and validate a measure of instructional dissent for use in the college classroom. In study one, the pilot inventory of the IDS was reduced to 22 items which emerged as three distinct factors that reflected expressive, rhetorical, and vengeful dissent. Initial concurrent validity support was provided as all three types of teacher misbehaviors were correlated positively with all three types of dissent. Additional concurrent validity support was provided as expressive and vengeful dissent were correlated inversely with student learning outcomes. Interestingly, rhetorical dissent was correlated positively with learning indicators and was uncorrelated with the remaining learning outcomes. These results suggest that rhetorical dissent may serve a function uniquely different from the other types of dissent. Recall that expressive and vengeful dissent stem from a desire to release frustration or enact revenge. Rhetorical dissent is only designed to fix a perceived wrongdoing. It is possible that if student demands are met, the desire to engage in repeated rhetorical dissent is stifled. Also, rhetorical dissent may be more of an isolated incident or may not be an intense emotional reaction of anger. Research

suggests that students sometimes communicate with an instructor for functional reasons to perform better in class (Martin, Myers, & Mottet, 1999).

In study two, the three-factor structure of the IDS was confirmed using CFA in an independent sample. Evidence of more concurrent validity was provided as student perceptions of distributive, procedural, and interactional justice were associated inversely with expressive and vengeful dissent, although rhetorical dissent was only related inversely to procedural justice. Again, these results suggest that rhetorical dissent may operate differently than expressive or vengeful dissent. Conceptually, the items for this subscale reflect a student's desire to communicate with an instructor in order to perform better in the course (e.g., "I voice my concerns to my teacher to make sure I get the best grade possible" or "I tell my teacher when I disagree with him/her so I can do better in the course"). These items may not reflect the negative emotional valence that is associated with expressive dissent (e.g., "I complain about my teacher to get my frustrations off of my chest") or vengeful dissent (e.g., "I hope to ruin my teacher's reputation by exposing his/her bad practices to others"). Also, discriminant validity evidence was gathered as student challenge behavior was associated positively with student dissent but the correlations were not redundant. Overall, results of both studies suggest that (a) teacher misbehaviors and classroom injustice are triggering agents of student dissent, (b) students feel the need to dissent when learning outcomes are compromised, and (c) student dissent is different from student challenge behavior.

This study is not without limitations. The main limitation of the present study was that some students did not report using dissent (i.e., students who were satisfied acquiesced with "0 = never" responses on the IDS items). To uncover the intricacies of student dissent using the IDS, researchers may consider using the data collection method proposed by Richmond, McCroskey, Kearney, and Plax (1987) in their study of punishment-related behavioral alteration techniques. Richmond et al. asked students to report on their "worst" teacher of the semester to discern between "good" and "bad" teachers' use of power in the classroom. The more common student data collection method (used in the current study), which asks students to report on their instructor from their previous class (Plax et al., 1986), may not direct all students to report on dissent relevant experiences if they had nothing to complain about. Another limitation involves the lower reliability coefficients of the procedural and practicality challenge subscales.

Future research should continue to validate the dimensionality of the IDS using confirmatory factor analysis. As Levine (2005) noted, "even the publication of validation studies does not provide a sufficient guarantee of validity" (p. 335). Based on Levine's advice, future research should confirm the 3-factor structure of the IDS in subsequent studies, and researchers should get into the methodological habit of using CFA on established measures because as Levine (2005) noted, "it requires little effort, and no additional data" (p. 336). Future research should also examine students' personality or communication traits that influence their propensity to use instructional dissent and examine different instructional or interpersonal orientations (e.g., learner/grade orientation, conflict styles, etc.) that are precursors

to student dissent. It is plausible that distal factors influence student's likelihood of communicating dissent, despite the class or instructor. Research should also continue to research proximal factors that are specific to the course as precursors of dissent, such as classroom emotions (Titsworth, Quinlan, & Mazer, 2010). Finally, researchers should consider the role that dissent plays in the course/instructor evaluation process. It is probable that some students refrain from face-to-face dissent and instead, dissent through anonymous course evaluations at the end of the semester because research suggests students tend to punish instructors with poor ratings of instruction when there is a grade discrepancy (Griffin, 2004). The IDS provides an operationalization for student dissent which may have particular relevance for these future directions and may also help in theory testing (e.g., Attribution Theory, Expectancy Violations Theory) and building (e.g., Relational Power and Instructional Influence Theory, Rhetorical/Relational Goal Theory) in the instructional communication context. Future research can now examine these potential directions using the IDS because the results from both studies suggest that the IDS is a reliable and valid self-report measure of instructional dissent in the college classroom.

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