

Emotional contagion in the classroom: Effects of teachers' achievement goals and emotions on perceived students' emotions

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Background

Research in educational psychology has extensively explored the nature and effects of achievement goals in students (Senko et al., 2011). However, the examination of the instructional goals of teachers is relatively rare but nonetheless important as teachers' goals can greatly influence their classroom behaviors and teaching quality (Frenzel et al., 2009b). Ames (1992) defined an achievement goal as "the purpose of achievement behaviors" (p.261). She further suggested that goals involve the integration of affect and cognition that, in turn, influences an individual's behaviors. Therefore, teachers' goals should be related to not only their cognitions, but also emotional experiences and behaviors that impact their students. Although the relationship between teachers' goal orientations and emotions has been studied (e.g., Schutz et al., 2007), the effects of teachers' goals on students' emotions are relatively unexplored, as is the influence of teachers' emotions on their students' emotions (cf. Frenzel et al., 2009a). The current study attempted to address this gap by evaluating a structural equation model in which the direct effects of teachers' goal orientations on the perceived emotions of their students was assessed, as well as the indirect effects of instructional goals on perceived students' emotions through teachers' own emotional experiences.

Method

Participants and procedures

Practicing teachers (N = 536) from the Canadian provinces of Ontario and Quebec were recruited through teacher unions and school principals to complete a web-based questionnaire including demographic items, as well as measures assessing teachers' goals, emotions, and perceived students' emotions. The 536 participants were composed of teachers from primary schools (51.1%, n = 258), secondary schools (42.8%, n = 216), and junior college teachers (Quebec equivalent of grades 12-13; 6.1%, n = 31). The mean age of teachers was 41.89years (SD = 9.95), 85.2% were female, teachers' ethnicities were predominantly Caucasian (90.6%), and most had a bachelor's degree (72.5%) or a master's degree (24.2%). The mean years of experience in the teaching profession was 12.87 (SD = 8.64).

Method (cont'd)

Measures

Teachers' goal orientations. Butler's (2007, 2012) scales assessing five types of instructional goals were used in the present study. The measures included 12 items in total, with mastery goals (M = 9.21, SD = 1.17, r(489) = .56; sample item: "I learned something new about teaching or about myself as a teacher"), ability approach goals (M =5.97, SD = 2.31, r(478) = .54; sample item: "My classes did better than those of other teachers on an exam"), ability avoidance goals (M = 4.74, SD = 2.14, r(484) = .52;sample item: "No one asked a question that I could not answer"), and work avoidance goals (M = 3.40, SD = 1.73, r(481) = .49; sample item: "The material was easy and I did not have to prepare lessons") each assessed using two representative items reported in Butler (2007), and social goals evaluated using the four-item scale from Butler (2012; M = 15.49, SD = 3.25, $\alpha = .82$; sample item: "My main goal as a teacher is to show my students that I care about them"). All the questions are rated on a 5-point Likert scale $(1 = do \ not \ agree \ at \ all \ to \ 5 = agree \ completely).$

Teachers' emotions. Frenzel et al.'s (2010) Achievement Emotions Questionnaire for Teachers (AEQ-teacher) was used to evaluate teachers' most commonly experienced emotions, with 4-item measures used to assess teachers' feelings of enjoyment (M = 13.96, SD = 1.98, a = .76; sample item: "I generally enjoy teaching"), anxiety (M = 6.84, SD = 2.60, a = .76; sample item: "I feel uneasy when I think about teaching"), and anger (M = 5.71, SD = 2.04, a = .77; sample item: "Teaching generally frustrates me"). Each measure employed a 4-point scale (1 = strongly disagree to 4 = strongly agree).

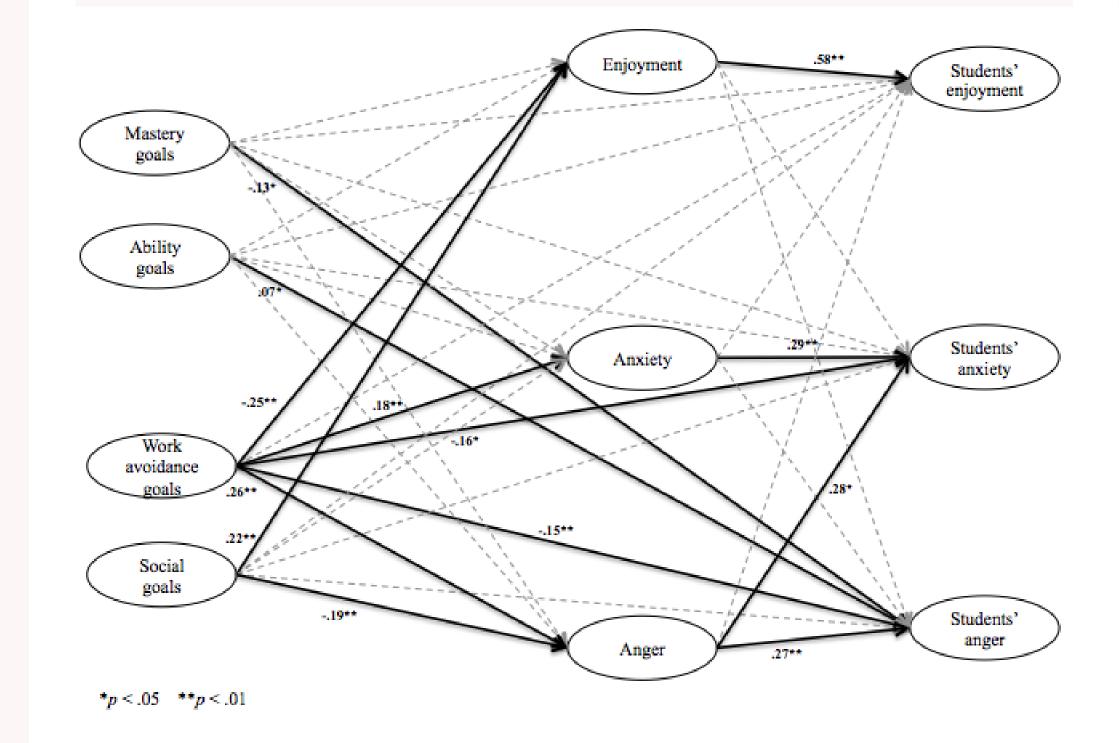
Perceived students' emotions. Selected items were adapted from an engagement measure by Skinner (2009) to comprise two-item measures of perceived enjoyment (M = 6.51, SD = 1.24; sample item: "For my students, learning seems to be fun"), anxiety (M = 3.30, SD = 1.23; sample item: "In my class, students tend to be anxious"), and anger in students (M = 3.07, SD = 1.07; sample item: "In my class, students tend to be angry") on a 4-point scale ranging (1 = not at all true to 4 = very true).

Analysis

Due to observed multicollinearity between teachers' ability approach goals and ability avoidance goals, as indicated by a strong correlation between the latent variables, r(476) = .65, p < .01, and resulting Heywood cases in the SEM analyses, items assessing these goals were combined to load onto a single latent variable – ability goals (collapsing the approach and avoidance distinctions). The resulting SEM model was then assessed to evaluate the direct and indirect effects of teachers' achievement goals on their perceived students' emotions.

Results

The hypothesized model fit the data well (CFI = .947, TLI = .932, RMSEA = .037). Direct effects of goals on students' emotions were observed, with teachers' mastery goals negatively predicting students' anger (-.13), and ability goals positively predicting students' anger (.07). However, unanticipated direct paths showed teachers' work avoidance goals to predict lower levels of perceived student anxiety (-.16) and anger (-.15). Concerning the effects of teachers' goals on their own emotions, work avoidance significantly predicted each emotion assessed, with higher levels of teachers' work avoidance predicting lower enjoyment (-.25), as well as higher anxiety (.18) and anger (.26). Higher levels of social goals were also found to predict better levels of enjoyment (.22) and anger (-.19). Finally, teachers' emotions were found to primarily predict the corresponding emotional experience they perceived in their students with respect to enjoyment (.58), anxiety (.29), as well as anger (.27), with teachers' anger also being found to predict teachers' perceptions of their students' anxiety (.28).



Discussion

The results of the present study provide empirical support for our hypotheses that teachers' endorsement of instructional goals not only directly influence their own emotions, and the perceived emotions of their students, but also indirectly influence their perceived students' emotions through their own emotional experiences. More specifically, whereas teachers' mastery and ability goals showed only direct links in the expected directions to students' feelings of anger, teachers' work avoidance and social goals were found to also indirectly predict perceived students' emotions through anticipated effects on at least two of the three teaching emotions assessed.

Discussion (cont'd)

In other words, both adaptive and maladaptive instructional goals were found to impact teachers' emotional experiences (and presumably the expression of these emotions in class) that, in turn, predicted greater levels of the same emotional experience in their students (as perceived by the teacher).

Our results regarding teachers' social goals thus underscore the importance of recent work by Butler (2012) highlighting the importance of teachers' social goals for connecting with others (even more so than mastery-focused goals), further suggesting that these goals may impact teachers' emotions that carry over to their students. More specifically, our results suggest that teachers' emotions, especially enjoyment and anger, may mediate the relationship between teachers' social goals and their students' emotions, with teachers who focus on their relationships and communications with students tending to experience greater enjoyment and less anger that, in turn, lead to these teachers seeing these same emotional benefits in their students.

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