

1
3 MOTIVATION AND EMOTIONAL
5 TRANSACTIONS: WHERE DO
7 WE GO FROM HERE?
9

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15

17 I believe that this nation should commit itself to achieving the goal, before this decade is
19 out, of landing a man on the moon and returning him safely to the earth. (President John
21 F. Kennedy, Joint session of Congress, May 25, 1961)

23 Within the social historical context of the time, this goal statement, in
25 part, had the effect of energizing and focusing a nation in the direction of
27 putting humans on the moon. From the point of view of motivational
29 researchers it had many of the elements of a useful goal (e.g. specific,
31 challenging and stated completion date) (Locke and Latham, 2002). In
addition, from the perspective of emotion researchers, the goal had **AU :1**
the potential to act as a reference point from which people could judge
how they felt about their progress toward and the accomplishment of that
goal (Schutz, 1994; Smith, 1991). From our perspective, the potential to
investigate goals from multiple points of view is representative of how
we frame our discussion of the transactions among human motivations and
emotions in this chapter.

33 However, before we begin our discussion, we would like to make three
35 points: first, we consider the constructs and thinking used by motivation and
emotional scholars to be bounded by the social historical context in which

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1 they are being used. In other words, the meaning associated with motiva-
 2 tional and emotional constructs continues to emerge and change over time
 3 (e.g. motivation was once thought to be explained simply by external
 4 factors). Therefore, these constructs will continue to change over time.
 5 Second, currently, within the context of a particular activity or event, we see
 6 motivational and emotional processes as merely different vantage points
 7 from which scholars have attempted to understand, explain and predict
 8 human thoughts and activities (Schutz, Hong, Cross, & Osbon, 2006). As a
 9 result, we focus on how these concepts overlap during the co-construction
 10 of a particular goal-directed attempt. Third, in this chapter we will focus
 11 mostly on emotional episodes, and, for space limitation, will not explicate
 12 the nature of transactions among motivations with other affective concepts
 13 such as core affect (e.g. mood) or affective tendencies (see Schutz, Aultman,
 14 & Williams-Johnson, 2009, for a discussion of these affective distinctions).
 15 Given those caveats, we discuss our current understandings about the
 16 nature of the processes associated with human motivation and emotion.
 17 To do so, we begin by discussing some of the overlapping concepts that
 18 have been used in both the motivation and emotion literature. During that
 19 discussion, we also focus on how these overlapping concepts are currently
 20 being used by some researchers who investigate transactions among
 21 motivations and emotions. Finally, we make claims about future inquiry
 22 that foreground the transactions among motivation and emotional processes
 23 in the educational contexts.

25

MOTIVATION AND EMOTION

27

28 In this section, we will highlight three overlapping concepts that are
 29 currently used in both the motivation and emotion literatures: goals, agency
 30 and expectancy. We recognize that there are other potential overlapping
 31 constructs (e.g. interest); however, we focus on these three.

33

Goals

35

Goals, Goal Importance and Value in the Motivation Literature

36 Our assumption is that human activities (e.g. behaviors, thoughts, etc.) are
 37 intentional and directed toward something. For us, that ‘something’ is
 38 the goals, values and beliefs that people attempt to attain and maintain.
 39 We are not suggesting that people are always conscious of that intent, only

1 that there is directionality to human activity (Ford, 1992; Klingler, 1977;
2 Schutz, 1991, 1994). In the motivation literature, researchers have suggested
3 that goals, values and beliefs provide that direction for human thoughts,
4 behavior and strategies (Ford, 1992; Ford & Smith, 2007; Markus & Nurius,
5 1986; Schutz, 1991, 1994; Schutz & Davis, 2000).

6 Elsewhere, speaking specifically about goals, Schutz and colleagues, as
7 well as others, have defined goals as subjective representations of what
8 humans would like to have happen and what they would like to avoid
9 happening in the future (Ford, 1992; Ford & Smith, 2007; Markus &
10 Nurius, 1986; Schutz, 1991, 1994; Schutz, Crowder, & White, 2001; Schutz
11 et al., 2006). In this context, we use goals as a broad category that includes **AU :2**
12 both goal content, which answers questions of ‘what’ a person would like to
13 accomplish (e.g. I want to become a teacher, or I want to lose 10 lb by the
14 end of the year), and goal orientation, which answers questions of ‘why’ a
15 person would like to accomplish something (e.g. I enjoy learning in this
16 class, or I want to get an ‘A’ so it will help me get into graduate school).

17 In addition to the actual goals themselves, the importance or value of
18 those goals to the individual within a particular context has also been
19 demonstrated to play a key role in motivation (Eccles, 2005; Ford, 1992;
20 Schutz, White, & Lanehart, 2000). For example, results of research
21 conducted by Eccles (1983, 2005) suggest that student task values are
22 associated with future decisions to take additional courses in a particular
23 area. Similarly, Schutz et al. (2000) found that students accomplished
24 and spent more time on the goals that they rated as most important to
25 themselves. In addition, those students who spent more time on their most
26 important goals also tended to perform better academically.

27

Goals, Goal Importance and Value in the Emotion Literature

28 Goals also play a key role in the current human emotion literature
29 (Carver & Scheier, 2000; Ford, 1992; Ford & Smith, 2007; Frijda, 1993;
30 Lazarus, 1991; Pekrun, Frenzel, Goetz, & Perry, 2007; Scherer, 1984;
31 Schutz & Davis, 2000; Smith, 1991). Schutz et al. (2006) described emotional
32 experiences as ‘socially constructed, personally enacted ways of being that
33 emerge from conscious and/or unconscious judgments regarding perceived
34 successes at attaining goals or maintaining standards or beliefs during
35 transactions as part of social–historical contexts’ (p. 344).

36 For our discussion here, the key part of that definition is that emotions
37 involve judgments or appraisals (Boekaerts, 2007; Pekrun et al., 2007;
38 Schutz & Davis, 2000; Schutz & DeCuir, 2002). The reference points for
39 those judgments or appraisals are individuals’ goals, values and beliefs

1 (Carver & Scheier, 2000; Ford & Smith, 2007; Schutz & DeCuir, 2002;
2 Schutz & Davis, 2000; Weiner, 2007). In other words, human goals, values
3 and beliefs represent ways individuals, as members of social groups, position
4 themselves during particular life events (Boekaerts, 2007; Ford, 1992;
5 Ford & Smith, 2007; Markus & Nurius, 1986; Schutz et al., 2001, 2009).
6 As such, during events, people tend to make judgments about how they see
7 the pursuit of their goals progressing during a particular transaction.
8 In most cases, these judgments tend to occur outside of the person's
9 awareness, yet these judgments are seen as being key to an emotional
10 episode (Frijda, 1993; Lazarus, 1991; Pekrun et al., 2007; Schutz & Davis,
11 2000; Schutz et al., 2009; Smith, 1991).

12 Lazarus (1991, 1999) made a distinction between primary and secondary
13 appraisals (more on secondary appraisal later). Primary appraisals consist
14 of judgments or appraisals related to two issues that are key to this
15 discussion: (1) goal relevance (i.e. is the activity seen as important or of
16 value to the person's goals, standards or beliefs?) and (2) goal congruence
17 (i.e. is the activity perceived as going the way the person hoped it would?).
18 For Lazarus (1991, 1999), it is these primary appraisals that are seen as
19 influencing the valence of an emotional episode. So, if an activity is judged
20 to be important and going well, a pleasant emotional episode is more likely
21 to occur. Conversely, if an activity is judged as important but perceived
22 as not going well, an unpleasant emotional episode is more likely. The
23 results of a recent study by DeCuir-Gunby, Aultman, and Schutz (2009)
24 demonstrated this relationship between goal congruence appraisals and
25 test emotion. In this study, college students who reported higher levels
26 of goal congruent appraisals related to testing – in other words, their test
27 performances generally tended to go the way they hoped – also reported
28 lower levels of test anxiety ($r = -.57$) and anger ($r = -.67$), but higher levels
29 of test hope ($r = -.43$) and pride ($r = .43$). These results suggest that
30 student judgments regarding how their goal-directed attempts are going
31 have a role, depending on additional secondary appraisals (see later
32 discussion), in the emotions they experience.

33

Motivational and Emotional Goal Transactions

34 Some researchers have specifically looked at transaction among motivation
35 and emotion concepts. For example, Linnenbrink and Pintrich (2002),
36 drawing upon Dweck and Leggett's (1988) social-cognitive theory of
37 achievement goal orientation, investigated how the goal orientations that
38 students adopt and their perceived progress toward meeting those goals
39 affect their emotions and, reciprocally (but to a lesser extent), how emotions

1 influence students' choices of goal orientations. Thus, students who adopt a
2 performance goal (e.g. receive an 'A' on an exam), for example, and use
3 peers' performance as a reference point on which to base their progress
4 toward this goal, become more vulnerable to unpleasant emotions (shame
5 and frustration) should they deem the gap between their current state and
6 their desired state to be too wide. To cope with this discrepancy, some
7 students may subsequently place less value on the task (Twenge & Crocker,
8 2002) or self-handicap (thereby adjusting their attributions such that
9 shortcomings are blamed on uncontrollable circumstances). According to
10 Linnenbrink and Pintrich (2002), these unpleasant emotions may then affect
11 the goals that students adopt when facing the same or similar tasks (the
12 defensive pessimism coping described by Martin, Marsh, & Debus, 2001).

13 Linnenbrink and Pintrich (2002) also suggest that the adoption of mastery
14 goals encourages emotions in the face of both success and failure that are
15 different than if one held performance-approach or performance-avoid
16 goals. That is, if students hold mastery goal orientations and are making
17 insufficient progress on a task, resulting emotions are likely to be more
18 pleasant. Conversely, students with performance goals would be expected to
19 have more unpleasant affect.

20 At the crux of Linnenbrink and Pintrich's (2002) proposed integration
21 of motivation and affect is an adaptation of Carver and Scheier's (1990)
22 control-process model. In the control-process model, individuals act to
23 reduce the discrepancy between their own behavior and a reference point
24 (e.g. goal). The iterative process of seeking to reduce the discrepancy
25 between one's current state and the desired state creates a control process
26 within the individual. The monitoring of the control process as a person
27 moves toward his or her goals can then be linked with certain affective
28 states, as in the previously stated case of students who have mastery goals.

29 Recent research on goals and emotions supports this proposed relationship.
30 For example, in her study of elementary students' emotions, goals
31 and achievement outcomes, Linnenbrink (2005) found that performance
32 goal orientations were positively correlated with test anxiety (an unpleasant
33 emotion). Extending beyond the unpleasant/pleasant emotion dichotomy,
34 McGregor and Elliot (2002) examined challenge/threat affect as it relates
35 to college students' emotions. Linnenbrink (2005) proposed that students'
36 goal orientation (mastery or performance approach or avoid) affects
37 whether students appraise a task as either a challenge or a threat, each of
38 which is linked to a specific set of achievement emotions. In their sample of
39 undergraduate students, McGregor and Elliot (2002) found that mastery-
approach and performance-approach goal orientation predicted emotions

1 associated with challenge appraisals while performance-avoidance goals
were related to threat affect.

3 As such, from a motivational perspective goals represent what the
person is generally (e.g. life goals and core goals), as well as specifically
5 (e.g. proximal or task-specific goals), attempting to attain or maintain.
From the emotion perspective, it is those goals that act as the reference
7 points during particular events to appraise where one is in a relationship
to where one wants to be. As such, the appraisals one makes during goal-
9 directed events are thought to influence the emotions one experiences
during that event and those emotions have the potential to influence future
11 motivation and emotion.

13

Agency

15

Agency or Control in the Motivation Literature

17 The second concept that overlaps both the motivation and emotion
literature is agency. In the motivation literature, research related to human
19 perceptions regarding agency or control has a long history (deCharms, 1968;
Rotter, 1966). Early in this area of research, deCharms discussed this issue
21 in terms of a distinction between origins and pawns. ‘Origins’ are people
who believe their activity is determined by their own choosing – they tend to
23 see themselves as being in control and responsible for their actions. On the
other hand, ‘pawns’ are people who believe their activity is determined by
25 external factors beyond their control – they tend to see themselves as being
more powerless. An additional point to consider is that deCharms (1968)
27 indicated that the distinction between origin and pawn is continuous and
non-discrete, which suggests that personal experiences as well as social
29 historical contexts also play a role in one’s perception of control during
particular events.

31 More recently, Deci and Ryan (1985) argued that autonomy, along
with competence and relatedness, are three basic innate psychological
33 needs (Deci & Moller, 2005). Autonomy, from their perspective, represents
our need for a sense of control as it relates to choosing behaviors. In other
35 words, as perceptions of personal control increase, there tends to be a
corresponding increase in activity (i.e. motivation) directed toward the
37 development, pursuit and accomplishment of one’s goals.

In attribution theory, this is the controllability dimension that,
39 along with locus and stability, has been used to investigate how people
explain or talk about their successes and failures (Weiner, 2005, 2007).

1 For the controllability dimension of attribution theory, explanations like
2 effort (e.g. I put in a lot of effort preparing for that game) and strategies
3 used (e.g. That was the wrong way to approach that test) tend to be seen as
4 being more controllable and therefore more motivational to the person,
5 whereas failures associated with task difficulty (e.g. That was way too hard)
6 and luck (e.g. I had bad luck) tend to be seen as uncontrollable and
7 therefore more likely result in less activity directed toward goal pursuit.

9 *Agency or Control in the Emotion Literature*

10 Issues related to the perception of control in the emotion literature center
11 around both the aforementioned appraisal and attribution processes.
12 As indicated, Lazarus (1991) made a distinction between primary (i.e. goal
13 relevance and congruence) and secondary appraisals. Accordingly, primary
14 appraisals tend to influence the valence of the emotions experience related
15 to a particular activity (i.e. pleasant emotion vs. unpleasant emotion).
16 In addition, researchers who have investigated the appraisal processes
17 suggest that to make fine-grained distinctions about specific emotions,
18 additional or secondary appraisals are needed (Pekrun et al., 2007; Schutz &
19 Davis, 2000; Smith, 1991; Smith & Ellsworth, 1987). In secondary appraisal,
20 the judgments revolve around perceptions of what, if anything, the person
21 can do during an activity to move one toward his or her particular goals,
22 standards or beliefs. In other words, does the person think he or she will
23 be successful in this particular attempt? The results of a recent study by
24 DeCuir-Gunby et al. (2009) demonstrated this relationship between agency
25 appraisals and test emotion. In this study, college students who reported
26 higher levels of agency appraisals – in other words, they generally felt in
27 control during tests – also reported lower levels of test anxiety ($r = -.36$)
28 and anger ($r = -.50$), as well as higher levels of test hope ($r = .41$) and pride
29 ($r = .38$).

30 Agency, or judgments about who is in control or who caused what is
31 occurring during a transaction, is considered to be a secondary appraisal.
32 For example, if students judge an event to be goal relevant but going badly
33 and someone else's fault, anger is likely to emerge. However, if students
34 judge an event to be goal relevant, going poorly and their own fault, it is
35 more likely that guilt or shame will emerge (Smith, 1991; Smith & Ellsworth,
36 1987). For a researcher interested in the appraisal process, the focus is on
37 the judgments that are made during the actual event.

38 In attribution theory, the focus is on the judgments that occur after the
39 event or, in other words, explanations for why people think they were
40 successful or not successful. In addition to the motivational consequences

1 discussed earlier, Weiner (2005, 2007) has also investigated attributions and
2 their influence on emotions. For example, explanations for unsuccessful
3 attempts that include a controllable attribution have been associated with
4 shame and guilt, whereas explanations for unsuccessful attempts that
5 involve uncontrollable attributions have been associated with anger and pity
(Weiner 2005, 2007).

7
Motivational and Emotional Agency Transactions

9 Boekaerts (1996) proposed that students have two priorities: increasing their
10 value by increasing their academic competence and maintaining a positive
11 sense of self or well-being. When students believe in their own agency to
12 create the desired outcome and thus experience the pleasant emotions
13 associated with such agency beliefs, Boekaerts (2007) contends that they
14 continue down the mastery track with the goal of increasing their academic
15 competence. Conversely, when students perceive a discrepancy between
16 their current state and the goals of the task, or lack belief in their ability
17 to affect or control the outcome of the task, they switch to a more self-
18 protective mode.

19 Martin et al. (2001) examined self-handicapping and what they
20 termed defensive pessimism as coping mechanisms during academic tasks.
21 Following Boekaerts's (1996, 2007) assertion regarding students' desire to
22 maintain their positive sense of self, by either approaching or avoiding a
23 task, defensive pessimists 'alter the meaning of failure by steeling themselves
24 for failure and by setting lower and safer standards against which to be
25 judged' (Martin et al., 2001, p. 87). Some students who self-handicap
26 have the potential, in the short term, to maintain a positive sense of self by
27 making attribution adjustments. They may seek to attribute their current
28 struggles to a lack of effort (controllable) rather than to a lack of ability or
29 intelligence (uncontrollable). By deflecting away from a possible lack of
30 ability, students have the potential to maintain, in the short term, their
31 positive view of themselves and their academic abilities (see Urdan &
32 Midgley, 2001 for a more comprehensive discussion of self-handicapping).
33 In addition, on a more positive note, Wolters (2003) points to the use of
34 attribution adjustments as indicative of students' ability to self-regulate their
35 motivation and, ultimately, the emotions associated with that motivation.

36 Ford and Smith (2007), in the construction of their model of optimal
37 human functioning, propose that perceptions of agency, or one's perceived
38 ability to affect an outcome, mediate the relationship between one's
39 goals and corresponding emotions, with motivation being the product of
the interaction of these three components. In the classroom environment,

1 this means that students' achievement-related emotions are dependent on, at
2 at least in part, their beliefs about the amount of personal control (or agency)
3 that they have to affect their academic outcomes and achieve task goals.
4 Agency beliefs, perceived progression toward goals and the regulation of
5 resulting emotions then interact to influence students' task motivation. This
6 interrelationship is most readily seen in the literature that examines the
7 positive effects of student-centered classrooms on the motivation and affect
8 of both teachers (Pelletier, Seguin-Levesque, & Legault, 2002; Reeve, Bolt,
9 & Cai, 1999) and students (Harter, Whitesell, & Kowalski, 1992; Martin
10 et al., 2001). Assor, Kaplan, and Roth (2002) examined the effects of teacher
11 autonomy support on students' academic engagement. Assessing specific
12 pleasant (comfort, enjoyment and interest) and unpleasant emotions (stress,
13 anger and boredom) and engagement in the sample of 862 elementary school
14 students, they found that providing choice predicted students' pleasant
15 emotions, while suppressing students' criticism/devaluing student input
16 predicted students' unpleasant emotions.

17 From a motivational perspective, personal control represents a need
18 and/or beliefs about one's perceptions of agency in the world. For the most
19 part, seeing oneself as an active agent in the world tends to promote activity
20 toward one's goals. From the emotion perspective, agency appraisals or
21 attributions made during or after an event are tied, as indicated above,
22 to more specific, rather than simple pleasant or unpleasant, emotional
23 experiences related to that event.

25

27

Expectancy

Expectancy and Self-efficacy in the Motivation Literature

29 In motivation literature, expectancy refers to a person's belief or judgment
30 about his or her abilities to be successful at a task. There are a number of
31 terms that have been used to differentiate these aspects of human belief
32 processes. It is not the goal of this chapter to explicate the nature of those
33 distinctions; however, some examples are expectance (i.e. expectancy-value
34 theory; Eccles, 2005), personal agency beliefs, (i.e. motivational systems
35 theory; Ford, 1992), self-concept (Marsh, 1990) and self-efficacy (i.e. social-
36 cognitive theory; Bandura, 1997). The roles of such beliefs, however, are
37 important in the construction of theoretical representations of the relation-
38 ship between motivational constructs and emotions, which is the focus of
39 current research in the area.

1 Self-efficacy, in particular, may be one of the most researched constructs
2 in the area of motivation and the consistent finding is that as one's beliefs
3 about one's capability to accomplish a task increase, there tends to be
4 a corresponding increase in activity (i.e. motivation) directed toward the
5 development, pursuit and accomplishment of one's goals related to the
6 particular task of interest. For example, if teachers feel confident in their
7 capabilities to manage their classroom, they tend to be more likely to be
8 successful at managing their classroom (Emmer & Hickman, 1991).
9 Similarly, if students feel confident in their ability to complete a task such
10 as an assignment, they are also more likely to experience success.

11 Researchers have demonstrated the importance of self-efficacy with a
12 number of important motivational outcomes. For example, self-efficacy has
13 been associated with effort and task persistence (Bandura & Cervone, 1983;
14 Schunk, 1995), the use of cognitive and self-regulatory strategies (Pintrich &
15 DeGroot, 1990) as well as higher academic achievement (Ferla, Valcke, &
16 Cai, 2009; Lodewyk, Winne, & Jamieson-Noel, 2009; Pearson, 2008).
17 The aforementioned researchers provide only a subset of the research
18 findings that demonstrate the influence of self-efficacy beliefs on motiva-
19 tional as well as other outcomes. As such, it is clear that efficacy beliefs are
20 important to our understanding of motivational processes.

21 *Expectancy and Self-efficacy in the Emotion Literature*

22 In the emotion literature, in addition to secondary appraisals related to
23 agency, Schutz and colleagues have also investigated the expectancy variable
24 during testing by using what they have termed testing problem efficacy,
25 which they define as the perceived potential to deal with problems, such as
26 difficult or unexpected questions, that might occur during a test (Schutz &
27 Davis, 2000; Schutz, Benson, & DeCuir, 2008). More generally, during
28 events people make judgments not only about the task, but also if they
29 see themselves being able to handle difficult or unexpected events that
30 might occur during the task. How someone appraises a situation, related
31 to problem efficacy, may be the difference between experiencing anxiety
32 (i.e. appraising the event as goal relevant, goal incongruent and low efficacy)
33 and challenge or hope (i.e. appraising the event as goal relevant, goal
34 incongruent and high efficacy) (Smith, 1991; Smith & Ellsworth, 1987).

35 DeCuir-Gunby et al. (2009) provided evidence for that relationship when
36 college students, who reported higher levels of test-problem efficacy, also
37 reported lower levels of test anxiety ($r = -.35$) and anger ($r = -.51$), as well
38 as higher levels of test hope ($r = .57$) and pride ($r = .52$). In other words,
39 students who felt confident that they could get themselves out of problems

1 that might arise during testing tended to report potentially more useful
2 emotions during tests. For example, a student with high problem efficacy
3 who temporarily forgets a formula during a math exam may experience
4 feelings of challenge rather than panic. Other researchers have found similar
5 findings for the emotions of enjoyment and anxiety (e.g. Pekrun et al.,
6 2007; Zeidner, 2007). Conversely, as noted by Bandura (1977), emotional
7 states are one source of efficacy expectation. For example, a normally
8 academically capable and efficacious student who is experiencing depression
9 may not feel as confident in his or her ability to perform well on a specific
10 assignment. In this case, the lower self-efficacy may be tied to the emotional
11 state of the student such that more pleasant emotions might result in an
12 increase in the student's task efficacy.

13 Researchers have also found similar relationships between emotions and
14 emotional regulation with teacher emotions. For example, Sutton (2007)
15 presented data that indicated that teacher efficacy was related to the
16 perceived effectiveness of showing pleasant emotions. In other words, being
17 confident about themselves as teachers was tied to how the teachers regulate
18 their emotions in the classroom. In addition, Day and Qing (2009) reported
19 high teacher efficacy was associated with teachers' pleasant emotions.
20 Finally, Chang and Davis (2009) found teachers' appraisals of their own
21 goal incongruence and lack of problem efficacy were related to student
22 disruptions. In other words, teacher perceptions of things not going well
23 combined with a lack of confidence in being able to handle classroom
24 problems was associated with not only an increase in student disruption,
25 but also intensity of the emotions teacher experiences. In addition, that
26 intensity or emotional experience tended to also predict their use of
27 emotional regulation as well as feeling burnout.

29

Motivational and Emotional Agency Transactions

31 Pekrun et al. (2007), in what they have labeled control-value theory,
32 have attempted to integrate a number of motivational and emotional
33 theoretical frameworks that demonstrate how human motivation and
34 emotion processes are complementary, rather than mutually exclusive.
35 Among others, their theory draws from expectancy-value theory
36 (Atkinson & Raynor, 1978; Eccles, 2005), attribution theory (Weiner,
37 2005), transactional theory of emotions (Lazarus, 1991), control theory
38 (Skinner, Wellborn, & Connell, 1990) and goal orientation theory (Dweck &
39 Leggett, 1988). This integrated theory relies heavily on the three constructs
discussed earlier in this chapter: control, efficacy and goals (values).

1 For Pekrun et al. (2007), subjective control refers to the amount of agency
that one perceives over outcomes associated with a task and depends on
3 one's causal expectancies and attributions. In other words, if students think
they can do something (expectancies) and believe that past successes have
5 been the result of their own efforts, they will tend to perceive themselves as
being in control within a similar context. Therefore, as with expectancy-
7 value theory, expectancy plays a key role. In terms of expectancies,
Pekrun et al. (2007) further categorize expectancies into three types: action-
9 control (Heckhausen, 1977), action-outcome and situation-outcome. Akin
to Bandura's (1997) self-efficacy construct, action-control expectancies refer
11 to beliefs in one's abilities to begin and achieve a desired outcome, while
action-outcome expectancies refer to one's expectancies that engaging in an
13 activity will allow one to achieve a valued outcome. As previously indicated,
this concept refers to the extent to which an activity is perceived as relevant
15 to the meeting of one's goals. Situation-outcome expectations describe
expectations that a particular outcome will occur without one's action or
17 involvement. Each of these expectancies suggests a level of perceived control
over the outcomes associated with a given task. As discussed in the previous
19 section, consideration of control permeates the literature on achievement-
related outcomes (e. g. Rotter, 1966; deCharms, 1968; Weiner, 2007).
21 At the crux of the focus on the effects of perceived control on achievement
outcomes, particularly when connecting motivation and emotion, are
23 students' beliefs in their own agency and attributions.

Generally speaking, from a motivational perspective, personal efficacy
25 represents one's beliefs about one's capability of being successful at a given
task. For the most part, seeing oneself as being capable of attaining one's
27 goals tends to promote activity toward and successes with one's goals.
From the emotion perspective, efficacy appraisals made during an event are
29 tied, as indicated above, to the emotions experienced related to that event.

31

Summary

33

Taken together, these three concepts, goals, control and agency, play
35 important roles in the current motivation and emotion literature. It is
our contention that the nature of the overlapping transactions among
37 those concepts may be best understood when discussing how particular
episodes unfold during goal-directed attempts. However, it may difficult
39 to contextualize those complex, dynamic processes when viewed from
theoretical and methodological lens of particular motivation or emotional

1 theories. As such, we have begun to think about those transactions from an
ecological dynamic systems perspective.

3

5 **ECOLOGICAL DYNAMIC SYSTEMS PERSPECTIVE**

7 In using this ecological dynamic systems perspective, our aim is to
acknowledge both social historical contexts (ecological) in which an episode
9 occurs and the dynamic transactions that occur during that particular
event (dynamic systems). Elsewhere, Schutz, Cross, Hong, and Osbon
11 (2007) used Bronfenbrenner's ecological model (1986) to explicate how
social historical contextual influences help to create the context for
13 particular classroom episodes. In other words, there are social historical
elements that influence the motivational and emotional nature of particular
15 events. For example, in the United States, over the past 8–10 years laws have
been created (macrosystem) regarding the use of high-stakes standardized
17 testing to collect information about students, teachers and/or school district
progress related to predetermined performance criteria. These changes at
19 the macrosystem level have had rippling effects throughout the educational
system. Researchers who have investigated the effects of such reform on
21 classroom teachers have documented the emotional and motivational changes
that occur at the classroom level (Cross & Hong, 2009; Kelchtermans,
23 Ballet, & Piot, 2009; Nichols & Berliner, 2007; Turner, Waugh, Summers, &
Grove, 2009; van Veen & Slegers, 2009). One perspective on this change
25 comes from Ms. Jones who, in a recent interview, discusses her experience as
a teacher on the day of the standardized test within the microsystem of her
27 particular classroom:

29 That is the most emotional draining day of our lives. Because as the teacher, we are
watching a train wreck sometimes, we are like – oh! I think it is so wrong [the testing]
because we are supposed to teach them and guide them, but we can't do that with the
31 test. – We just watch them and make sure they don't cheat and follow directions.
It is emotionally draining and frustrating. You know the ones that need the help but
33 you can't help them. You are hoping they are doing their best. All you do is to watch
their faces because you hope that they go like "Oh I know this, I got this!" Instead of,
35 "Oh, my god what is this?" ... But I think it is very emotional, it is very draining to have
to watch little children take that test.

37 We use the above quote to illustrate ways in which the social historical
contexts (e.g. the chronosystem and macrosystem) influence classroom
39 transactions. As such, to understand Ms Jones's goal-directed classroom
attempts, as well as her agency and self-efficacy associated with those

1 attempts, it is also important to understand the social historical contexts
3 from which those goals have emerged. In other words, in order to
5 understand particular classroom events that are occurring in the USA at
7 this particular point in time and the potential complex motivational and
9 emotional processes associated with that event, the social historical contexts
11 within which the event occurred need also be acknowledged.

13 To see that balance between the social historical contexts and a particular
15 event, Schutz et al. (2009) presented the case of Ms. Bell, who had a
17 classroom goal of creating a safe and caring place for students. She believed
(perceived efficacy and agency) that she could develop this safe, caring
19 place by spending a considerable amount of time early in the semester
21 getting to know her students. In other words, her belief was that if she knew
23 them and they knew she cared for them, classroom activities would go
smoothly. However, the frustration she expressed regarding a particular
event in which a student continued his pattern of classroom disruptions
suggests there was still work to be done. In her interview, she described the
event like the following:

19 It's seven months into the school year, so I'm wondering why we haven't worked
21 through that [her relationship with the child], but uh, it's also a child who has pretty, you
23 know, severe problems at home. And me being aware of those, it's kind of one of those
situations where I'm wondering how do we expect him to function in the classroom when
he's going through that stuff at home? So it's still frustrating for me, because I feel like
it's something [his classroom disruptions] we should have worked through by month
seven. (Schutz et al., 2009, p. 204)

25 Ms. Bell's account of the above emotional event provides an example of
27 the transactions among motivational and emotional constructs. In regard to
29 motivation, she had a valued goal of developing a safe, caring classroom
31 context. She expressed confidence in her ability to create that context
33 by getting to know her students early in the semester – thus acting as an
'origin'. However, during this particular event, what she saw happening did
35 not match what she wanted to happen (goal incongruence). She labeled her
emotional experience as frustration, which in part motivated her toward
figuring out other potential strategies that would help her to develop her
relationship with this as well as other children in her class and to continue
toward her goal of developing a safe, caring classroom context.

37 From the ecological or social historical context lens, teaching – especially
39 at the elementary school such as the one Ms. Bell teaches at – is
predominantly a female profession. Thus, her goal of developing a safe,
caring place may, in part, be tied to emerged societal roles and expectations
that tend to suggest that women are nurturing and therefore suited for the

1 teaching role (Noddings, 1984). In addition, researchers investigating
2 teachers' emotions have begun to investigate societal influenced feeling
3 and/or display rules (Denzin, 1984; Hochschild, 1983; Russell, 1991; Schutz
4 et al., 2007; Zembylas, 2005). In other words, based on historical views **AU :5**
5 about how teachers should interact with students, there are expectations
6 about what emotions teacher should and can feel and how they are expected
7 to display those emotions to their students. Research in this area is just
8 beginning; however, this may also suggest that Ms. Bell's goal of creating
9 a safe, caring place might also be a reflection of not only her goals, but also
10 societal expectations for how teachers should interact with students in
11 classrooms.

12 As we zoom in to this particular event and the emotion associated with
13 that event, there is a growing interest, particularly in positive psychology for
14 a dynamic systems theory lens. For example, Fogel et al. (1992) suggested
15 that emotions 'are neither states nor programs but self-organizing dynamic
16 processes that are created with respect to the flow of the individual's activity
17 in a context' (p. 122). This view of motivation and emotions as part of
18 a dynamic, or changing, system proposes that motives and emotions are
19 not static but are in a constant state of flux, as interrelated systems interact
20 with situational and individual characteristics to create transient emotional
21 episodes (Ford & Smith, 2007; Lewis, 2005; van Geert, 2008).

22 For Ms. Bell, within the retelling of this particular episode we see that flux
23 as well as the self-organizing nature of this transaction. In this case the
24 episode begins with a disturbance in the goal-directed lesson of Ms Bell.
25 As she talks about her relationship with this student we hear her explore
26 potential attributions as she tries to make sense of this event and her
27 frustration about that event. Thus, she begins by suggesting internal agency
28 attribution: 'It's seven months into the school year, so I'm wondering why
29 we haven't worked through that [her relationship with the child]'. From
30 there, in an effort to make sense of that event, she also explores an external
31 attribution with the student's home life by stating: 'it's also a child who has
32 pretty, you know, severe problems at home'. However, in the end she goes
33 back to her original assessment 'I feel like it's something [his classroom
34 disruptions] we should have worked through by month seven'.

35 This short excerpt demonstrates the transactions among Ms. Bell's goals,
36 as well as her agency and efficacy beliefs regarding this particular event. The
37 attributions she uses while retelling her story have the potential to influence
38 her future levels of motivation as well as her emotional experiences. As such,
39 it is our contention that in order to account for the transactions among all
40 of these various personal systems (e.g. self, emotional, social interactions,

1 motivational, etc.) at the episode level, a dynamic systems approach to may
be a useful.

3 Elsewhere, the dynamic systems approach has been used in the motivation
and emotion literature (Eynde & Turner, 2006; Fogel et al., 1992; Lewis &
5 Granic, 2000). In addition, dynamic systems theory is also being used as the
framework for more comprehensive descriptions of the interdependency of
7 human functional systems. For example, Frederickson and Losada (2005)
offer the idea of ‘human flourishing’. Drawing on data from measures that
9 assess a wide range of positive and negative emotions, the authors propose
that a mathematical ratio of positive to negative affect can be used to
11 indicate the point at which one can be considered ‘flourishing’, denoting
this cut-off score as the ‘Losada line’. Adopting a similar ‘whole person’
13 dynamic systems approach, Ford and Smith (2007) introduced their
Thriving with Social Purpose (TSP) framework. Derived from a humanistic
15 perspective, the TSP model supposes that the mechanism that spurs on all
of the component systems is an innate desire to strive for social purpose. In
17 striving for purpose, goals, beliefs and emotions are activated in ‘mutually
reinforcing patterns’ (p. 153), ideally to reach what the authors refer to as
19 ‘optimal functioning’, or, as Maslow described, self-actualization. In such
broader dynamic systems models as these, the motivation–emotion relation-
21 ship is but one piece situated in a larger set of ever-changing human systems.

From our perspective it may be the combination of an ecological
23 perspective with the dynamic systems approach that may provide a useful
lens from which we, as researchers, can develop a better understanding
25 of the transactions that occur during classroom events. The usefulness
of this combination for researchers results from being able to talk about
27 social historical contextual issues that provide emphasis on classroom
transactions, and in developing understandings of the processes involved
29 throughout the flow of activities that occur during particular episodes. It is
from that perspective that we will now discuss some potential directions for
31 future research.

33

DIRECTIONS FOR FUTURE RESEARCH

35

When reviewing the above-mentioned conclusions from researchers on
37 motivation and emotion, certain avenues for future research become
apparent. Perhaps the most useful future research objective is the notion
39 of conceptualizing, accepting and integrating our understanding of motiva-
tion and emotion into classroom settings more effectively. This objective is

1 representative of the non-linear nature of the motivational and emotional
3 transactions between student and teacher. As is evidenced in this chapter,
5 one direction might be to focus on furthering our understanding of students'
7 emotions in achievement contexts and how these emotions affect their
9 motivation (particularly their achievement motivation). In a reciprocal
11 direction, we suggest further exploration into how teachers' motivation and
13 emotions are shaped by transactions with students' emotions and how the
emotions of both students and teachers are shaped by practices at both the
school and policy levels (i.e. social historical contexts). In the following
sections, we outline what we see as potential useful directions for inquiry in
emotion and motivation for students, teachers and educational policy.
We also offer suggestions for the use of new methodologies for examining
classroom emotions and motivations.

15

Students

17

19 As discussed in this chapter, much of the early and current research in
21 emotions and education focuses on the breadth of students' emotions in
23 academic contexts. From a dynamic systems approach, next steps in the
25 study of students' emotions should focus on the student in emotional
27 context, that is, moving beyond examining students' emotions and
motivations in isolation and turning our attention to how they play out in
varying situations and contexts. For example, how do students' emotions
interact with those of teachers and what are the resulting motivations?
Or, what personal or cultural characteristics of students are associated
with certain emotional displays and what is the impact on motivation in the
classroom context and how does this change over time?

29 One example is the researchers who have examined the cultural contextual
31 effect of emotions and motivations of students from backgrounds that are
33 different from the dominant cultural atmosphere of the school or university
(DeCuir-Gunby & Williams, 2007; Gloria, Castellanos, Scull, & Villegas,
35 2009; Rodgers & Summers, 2008; Winograd, 2009). Thus, by embedding
student emotions in personal, historical and situational contexts, we may be
able to examine more effectively not just achievement-related motivation
and emotions, but also the full breadth of the classroom experience.

AU :6

37 Another area of research interest targets teacher training and classroom
39 instruction as well as students (e.g. Meyer, 2009). Citing the need for
curriculum improvements and increased student engagement, some current
research examines the core components of curriculum that connect learning

AU :7

1 activities with pleasant or unpleasant emotions and that make these tasks
 3 either challenging or fun in the eyes of students. The hope is that such
 5 discoveries will lead to the implementation of activities that will spur greater
 7 interest and enthusiasm on the part of students (Boekaerts, 2007).

7 *Teachers*

9 The ecological dynamic systems perspective also guides our recommenda-
 11 tions for future research on teacher motivation and emotional transactions.
 13 Emotional display rules, which suggest what emotions are appropriate
 15 in which situations, and emotional labor which, in the present discussion,
 17 refers to the amount of work needed to display those preferred emotions, can
 19 combine to create *compassion fatigue* wherein teachers may experience
 21 motivational and emotional exhaustion. Here, the teacher of a hard-working
 23 but struggling student may experience emotional exhaustion as she or he
 25 fights to maintain a positive attitude as the student's emotions become more
 27 unpleasant. Such expectations of teacher emotional regulation have been
 29 shown to hinder teacher effectiveness as well as student success (Oplatka,
 31 2009; Chang & Davis, 2009; Schutz et al., 2007; Meyer & Turner, 2007). AU :8

21 As such, future research should seek to discover why some emotions are
 23 expressed while others are repressed. Chang and Davis (2009) suggested that
 25 some unpleasant interactions with 'problem students' might be avoided if
 27 teachers felt freer to display their array of emotions with students who might
 29 be crying out for affection. Additionally, the necessity of determining the
 31 underlying causes of teacher emotions as well as the resulting appraisals they
 33 make about those emotions is paramount. Some researchers have proposed
 35 that the gamut of teacher emotions, including anger and frustration, should
 37 be displayed at some level in order to appropriately model correct emotional
 39 responses for students and to prevent maladaptive responses to unpleasant
 emotion (Pekrun et al., 2007; Sutton, 2007). Clearly more inquiry is needed
 to determine what this might look like in the classroom and how those
 displays might influence teacher and student motivation.

With these goals in mind, we recommend that longitudinal studies of
 teachers' emotional development over time as well as ethnographies of these
 personal experiences would be helpful in gaining greater understanding
 of the underlying causes and resulting effects of teacher emotion. Further,
 keeping in mind student-teacher emotional transactions, the effects of
 teacher emotional modeling and development of students' motivation and
 emotional regulation should also be examined.

1 For example, the greater use of imagination and emotion in the teaching
may also increase students' achievement motivation (Rosiek & Beghetto,
3 2009). To accomplish this, researchers suggest that teachers should find
a personal connection with the subject content and develop ways to
5 communicate this connection with students (Meyer, 2009). Accordingly,
future research should investigate the effect of teachers' connection with
7 their subject matter (and likely the extent to which they have control over
curricula), their resulting motivation and emotions and academic outcomes
9 of their students.

11 *School and Educational Policy*

13
15 A thorough knowledge of the motivation and emotional changes that will be
experienced as a result of working conditions and future policy measures is
also a necessary component of a complete and confident teacher (Meyer,
17 2009; Kelchtermans et al., 2009). As such, in accordance with the Ecological
Dynamic Systems approach, the transactions between principals and
19 teachers and the inherent emotions within these relationships should be
studied in relation to teacher motivation and emotion in the classroom
21 (Turner et al., 2009). On a wider scale, the implications of state and national
policy for teacher emotional latitude and control over curricula and what
23 this means for students' emotional regulation, motivation and ultimate
academic achievement should also be considered. For example, inquiries
25 should be made into the long-term effects and emotional impact of high-
stakes testing and accountability measures on both students and teachers.
27 As the previous quote from Ms Jones illustrates, the use of high-stakes
testing is changing the nature of classroom transactions.

29 Researchers who have looked at high-stakes testing indicate a growing
concern for teacher control of curriculum development, a new classroom
31 atmosphere that emphasizes performance goals more than mastery and
teachers who may fear for their job security as the result of the value placed
33 on such testing (Nichols & Berliner, 2007; Zembylas & Schutz, 2009).
The 'high-stakes testing era' has created a new historical context in which
35 student and teacher emotions and motivation may play out differently than
in other stages in educational history. Thus, future research must address
37 the impact of this era not only on students' achievement outcomes, but also
on students' and teachers' emotional regulation and motivation.

39 From a motivational perspective, van Veen and Slegers (2009) suggest
that agency may serve to empower teachers toward the implementation of

1 policies in their classrooms and schools. Such agency, or control, in the
2 reform policy process can affect teachers' feelings toward these policies and
3 their motivation to implement them in their classrooms. Thus, it would be
4 useful to consider the transactions between teachers and their principals
5 in schools that intend to implement reforms, acknowledging that a poor
6 relationship between teachers and administrators can adversely affect the
7 motivation required for proper implementation (Turner et al., 2009). Lastly,
8 it is necessary to delve deeper into the actual reasons and causes for teachers'
9 emotional reactions to reform in order to better match reform measures to
10 schools, teachers and their classrooms (Cross & Hong, 2009).

11 The focus on the effects of policy on teachers and students necessitates a
12 discussion of the power structures within school systems and their impact
13 particularly on the emotions of novice teachers. With such knowledge, there
14 will be less ambiguity and confusion when these teachers encounter strong
15 emotional experiences on the job. Thus, instruction must be dissected
16 carefully, in relation to not only students, but also new and incoming teachers.

17 18 **FUTURE INQUIRY METHODS**

19
20 Throughout this chapter, we have mentioned some of the difficulties
21 encountered in the study of emotions and the nature of the transactions
22 between motivation and emotion. As researchers continue to develop their
23 understanding of motivation and emotion in the classroom context, they
24 would also benefit from the development of methods. One component of
25 these adjustments might include more diversity in data collection points
26 when studying emotion and motivation, from as frequently as at 1-min
27 intervals to more traditional longitudinal time frames such as after several
28 months or years. Smaller increments of time would place more emphasis on
29 the immediate episode that emotion has on motivation and cognition while
30 longer periods would allow researchers to study broader topics, such as
31 teacher engagement or disengagement.

32 Another approach might require a more in-depth examination of the
33 specific emotions being studied and the corresponding tasks required of
34 participants with the goal of preventing a mismatch between affect and task,
35 therefore nullifying the intended results (Linnenbrink, 2007). This concept
36 would also transfer to participants with high-test anxiety, demanding a
37 greater focus on the congruence between each person's needs and the type of
38 test being administered (Zeidner, 2007). Therefore, for example, computer-
39 based programs in which students complete an academic task and are asked

1 at preset intervals to indicate their emotions may not be appropriate for
2 studying emotions in all students. A student who does not like to be
3 interrupted during reading tasks, for example, may often respond with
4 unpleasant emotions when prompted throughout the task. In this case, it is
5 not actually the task itself that is prompting the unpleasant emotions,
6 but the manner in which the emotions are being measured, creating a
7 critical confounding variable if the goal is to study students' emotions
8 during that task. Minimizing such unintended effects is critical to the
9 validity of studies of emotion and motivation, where the ecological dynamic
10 systems perspective acknowledges that much is in constant flux in the
11 emotional system.

12 To uncover the intricacies of classroom motivation and emotion,
13 researchers may also need to incorporate a greater variety of methods into
14 future research endeavors, focusing on aspects of motivation and emotion
15 with methods that range from neuropsychological systems to social
16 historical contexts (Pekrun & Schutz, 2007; Zembylas & Schutz, 2009). The
17 use of multiple methods would also provide a clearer and broader picture
18 of the multiple dimensions of motivation and emotion. Broadening data
19 collecting methods may include greater use of physiological, historical,
20 observational measures such as facial action coding as well as qualitative
21 methods (interview and observation) which should provide researcher with
22 a greater understanding of the physical, mental and historical components
23 of the emotional and motivational transaction systems.

24 As such, there is much to be investigated, discovered and improved in
25 the future research of goals, emotions and motivation. Emotional rules,
26 school reform, research practices, cultural implications and teacher training
27 methods all yield a wealth of opportunity through clear avenues for
28 continued research. Each of these has a strong impact on the emotions,
29 motivations and practices of educators and students in our school systems.
30 Through the aspirations and suggestions outlined above, we hope researchers
31 can work to eliminate some of the ambiguities and achieve more consistent
32 research results, allowing us to create a more emotionally, culturally and
33 academically aware environment for both teachers and students.

35

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