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Goal-Directed Behavior and Contextual Factors in the Classroom: An Innovative Approach to the Study of Multiple Goals

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Principles of social constructivism and about communities of learners clarify that being a responsible student involves performing well on a task as well as having motivation, having volition strategies, understanding rules and regulations, and having access to a productive social support network. A hotly debated issue is what motivation processes energize student behavior in new learning environments. This article argues new learning environments bring to the fore multiple content goals, including “I want to be entertained,” “I want to belong,” “I want to feel safe,” and “I want to be valued for who I am.” This article describes 3 goal frameworks previously peripheral to educational psychology that illuminate these goals: Ford’s goal taxonomy, Carver and Scheier’s hierarchical goal model, and Schwartz’s value system. The article identifies considerable gaps in knowledge about the nature of content goals students bring to the classroom, interrelations among goals, and the effects of environmental conditions on goals. New research should uncover patterns, alignments, and conflicts students establish among their different content goals.

In the heydays of teaching according to the principles of direct teaching, the teacher determined the achievement goals and students were expected to pursue these goals diligently and to ignore, neglect, or put on hold all other content goals that might divert them from reaching the end states that the teacher envisioned. In modern schools, teaching methods are increasingly based on the principles of social constructivism and community of learners; teachers and students realize that knowledge is not fixed, it is socially situated, and individuals impose their own structure on new information (see Hickey & Granade, 2004). Although achievement goal situations are still the core business of modern schools, many nonachievement goals have entered the classroom. Students are now allowed, even encouraged, to pursue belongingness, self-determination, and even entertainment goals in the classroom. Classroom instruction is gradually shifting from a focus on knowledge transmission and achievement striving toward classroom instruction that invites students to do the following and rewards them for doing so: experimenting and exploring, learning with and

from each other, surfing the Internet for information, being intellectually creative, and being socially responsible for the learning of group members (cf. the principle of community of learners, introduced by Brown, 1994; see also Battistich, Solomon, Watson, & Schaps, 1997).

GOALS AND THE NEW INSTRUCTIONAL LANDSCAPE

Modern schools do not focus exclusively on academic learning goals, and teachers, educators, and policymakers recognize that there is not a sharp demarcation line between goals pursued at school, at home, and in the peer group. At the same time, students realize that being a responsible student involves more than performing well on a task. It involves having management skills, motivation and volition strategies, a good understanding of rules and regulations, and access to a well-established social support network. Boekaerts (2002, 2003b) has argued that new learning environments, usually referred to as *Powerful Learning Environments*, increase the need for self-regulation in the true sense of the term, mainly because students must keep their multiple content goals in balance.

Consider the following: Teaching set up according to the principles of social constructivism invites students to choose

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their own cognitive and regulation strategies; to take initiative; and to decide when, where, and how (long) they learn. Some students enjoy this freedom, whereas others do not. Those who dominantly strive for power and achievement may find it difficult to share the decision process with group members, whereas students who are dependent on external regulation may be happy to follow the directions of other group members and thrive in a learning environment where social goals are valued. Following Ford (1992), Boekaerts (1998a, 2002, 2003a, 2003b) argued that all students must learn to pursue personal goals (e.g., “I want to understand,” “I want to feel confident”) alongside person–environment goals (e.g., “I want to be special,” “I want to have close friendships,” “I want to avoid uncaring behavior”) to develop their competencies and to increase their sense of belonging, while at the same time empowering others (Wentzel, 1996) and protecting their own well-being and self-esteem and that of others (Covington, 2000). In order to achieve these multiple content goals, students must acquire the necessary action programs and scripts, including social scripts (e.g., helping each other; sharing success, pride, and disappointment; negotiating; reaching consensus; confronting each other; resolving conflict; minimizing harm, threat, and loss to themselves and to others). They must learn to design and regulate their own learning process and at the same time comply with social expectations and rules (being a loyal, responsible, dependable, forgiving, tolerant, and broad-minded group member). This may involve imposing restrictions on their own actions (e.g., refraining from taking the initiative, allowing group members to present their argument first and to enjoy the limelight). Our point here is that the students’ values, motives, higher order goals, and the means–end relations in their goal system are gradually shifting by being exposed to learning situations that have been set up consistently according to the principles of social constructivism and community of learners (see also Hickey & Granade, 2004; McCaslin, 2004).

A question that begs answering in this respect is this one: What do we know about the driving forces of action behind students’ goal-directed behavior in the new learning environments? What are the motivation processes that students, who work in these environments, use to energize and steer their behavior? In what way are they different from motivation processes that energize students’ behavior in more traditional classrooms? In order to begin answering these and related questions, we have explored the literature on goal-directed behavior and linked it to the literature on the effect of contextual factors on motivation. We report on our findings in the next sections.

CONCEPTUALIZATIONS OF GOAL-DIRECTED BEHAVIOR IN THE CLASSROOM

Although most researchers who study student motivation will agree that goals are prominent constructs in their research, there is little agreement on the constructs that should

be used to study goal-directed behavior. Within the last decade, a number of comprehensive reviews have been written on motivation, goal theory, and school achievement. All these reviews were written from the perspective of social–cognitive theory (Covington, 2000; Eccles & Wigfield, 2002; Pintrich, 2003; Pintrich & Schunk, 1996; Wigfield, Eccles, & Rodrigues, 1998). Traditional social–cognitive approaches to understanding motivation have told us a great deal about the processes that underlie goal-directed behavior in traditional classrooms. For example, knowledge about students’ expectancies and values (Eccles & Wigfield, 2002), about their goal orientation (Pintrich, 2000), and about their self-efficacy (Bandura, 1997) predicts the strength and direction of students’ pursuit of achievement goals, regardless of the classroom setting and school culture.

A fundamental criticism of past research on goal-directed behavior in educational psychology is that researchers have focused too much on the pursuit of short-term performance against a single desired end state, namely, achievement. Boekaerts has argued repeatedly (e.g., Boekaerts, 1998a, 2002, 2003a, 2003b) that achievement goals are but a fraction of the goals that students bring to the classroom and that these goals are not isolated driving forces in the classroom. Accordingly, it is crucial that researchers identify the desirable and undesirable end states that students have in mind when they make a mental representation of learning tasks. Identification of the multiple content goals that students bring to bear on activities in the classroom will allow researchers to examine more closely the interaction patterns that students have established between achievement and nonachievement goals.

We are not claiming that educational psychologists did not address nonachievement goals, because they did. We are well aware that an early version of the achievement goal theory proposed by Maehr and his colleagues (e.g., Maehr, 1984; Maehr & Braskamp, 1986), namely, personal investment theory, was multidimensional in nature. Maehr and his colleagues included social goals associated with learning and achievement in their model (e.g., social approval goals, social solidarity goals, and social compliance goals). We are also familiar with the work of other researchers on social goals (e.g., Downson & McNerney, 2001; Wentzel, 1991, 1993, 1994, 1996; Wentzel & Wigfield, 1998). We applaud that understanding of the many social goals that students pursue in the classroom is growing (e.g., “trying to build up a network of friends,” “helping classmates with their tasks,” “sharing information,” “taking social responsibility for the learning of others”). Social goals illustrate that students wish to act in a way that is valued by people in their social environment (teachers, parents, peers) and different types of social goals refer to specific content categories (e.g., belongingness goals, social support goals, social responsibility goals, and equity goals).

Our main point is that goal-directed behavior in the classroom can only be understood if, as researchers, we gain in-

sight into the content of the multiple goals that become salient in the classroom and in the links that students have established between their multiple goals (i.e., their goal structure). Although we have accrued a great deal of information about achievement and social goals, we know very little about the conflicts that may arise when students want to pursue multiple goals simultaneously, for example, what happens when salient achievement and security goals cannot be pursued simultaneously? Insight into the content and structure of students' goals will help us to describe the divergent ways in which goals give meaning, direction, and purpose to actions in the classroom. What we need is a tool that helps us explore the kaleidoscope of goals that become salient in diverse learning settings. Such a tool can provide insight into the culture-specific principles that govern choice, consistency, and continuity of goals. We searched the literature for theories of goal-directed behavior in the classroom and taxonomies of goals that go beyond achievement goals. We came across Ford and Nichols's (1991) taxonomy and Carver and Scheier's (1998) hierarchical organization of goals and found these conceptualizations highly relevant to the study of goal-directed behavior in the classroom (for an extensive review, see Boekaerts, *in press*). We also searched for creative attempts to connect content goals to the motivation processes that individuals use to energize, steer, and direct their goal pursuits. We were disappointed with what we found until we came across Schwartz's (1992) empirically based value types and his conceptualization of the motivation processes that connect the different value types. In the next section we briefly describe these three important goal frameworks. The purpose of this brief review is to present readers with goal frameworks that have remained largely at the periphery of the educational psychology literature but are considered highly relevant for the study of goal-directed behavior in the classroom. With these frameworks in mind, the reader is then invited to explore with us the literature on the contextual factors that might bring specific values and goals to the surface in the classroom.

Ford's Taxonomy of Multiple Goals

The most comprehensive goal model is the 24-category taxonomy presented by Ford and his colleagues (Ford, 1992; Ford & Nichols, 1991). Ford's work is based on a system perspective that is grounded in developmental theory. It includes goals that refer to desired within-person consequences and goals that denote desired person-environment consequences. The former category includes the following goals: positive self-evaluation, exploration, intellectual creativity, entertainment, tranquility, happiness, bodily sensations, physiological well-being, unity, and transcendence. The latter category includes goals such as belongingness, social responsibility, resource provision, individuality, superiority, resource acquisition, mastery, management, material gain, safety, and creativity. Table 1 provides a description of each goal cate-

gory for those readers who are not familiar with Ford's taxonomy. It is important to note that Ford and his colleagues view goals as only one component of motivation—albeit a crucial one. They conceptualized personal goals as directive cognitions that individuals typically rely on to steer and direct their self-regulation process, namely, goal selection, goal setting, goal striving, and goal accomplishment (see also Karoly, Boekaerts, & Maes, 2005).

Several researchers followed Ford and his colleagues in arguing that measurement of the different types of content goals is essential to explaining and predicting behavior in a given context (e.g., Wentzel, 1991, 1994, 1996; Wentzel & Wigfield, 1998). Austin and Vancouver (1996) remarked that people's thoughts, feelings, and actions in a given situation are determined jointly by the content of their salient higher and lower order goals and by their perception of contextual factors. Accordingly, we assume that each learning episode elicits a unique configuration of values in the learner and that it is the configuration of goals—and not a single goal—that triggers goal-directed behavior. For example, some students may focus on the intended learning outcomes as the most desirable end state at that moment and put all other goals on hold. Other students may view the learning outcomes as desirable end states but sense that these goals are not in alignment with other goals that have also become salient at that moment in time (e.g., belongingness or security end states; see Hijzen, Boekaerts, & Vedder, *in press*).

Having knowledge about the content of students' salient goals (i.e., about the desired and undesired consequences that these goals represent for them) tells us something about the way students assign meaning to their (school) life. Ford (1992) explained that behavior is often (perhaps usually) guided by multiple content goals simultaneously: "the most motivating activities and experiences in life will be those that involve the simultaneous pursuit and attainment of many different kinds of goals" (Ford, 1992, p. 100). His message is loud and clear: Goals that have multiple connections have higher motivational significance for engaging in action than isolated goals, because the person has more than one reason for engaging in the course of action. An additional advantage is that shared goals will be better practiced, implying an increase in efficiency and a reduced need to consciously control means selection. In the next section, we explore what is currently known about the hierarchicality of goals.

Hierarchical Organization of Goals

A different approach to goal-directed behavior is Carver and Scheier's (2000) self-regulation theory, which is based on Powers's (1973) control theory. A basic tenet of control theory is that goals are desired or undesired end states that are used as reference signals in feedback loops. Desired end states (e.g., "I want to keep my parents happy") act as reference signals in negative feedback loops, that is, individuals wish to reduce the perceived discrepancy between an actual

TABLE 1
Taxonomy of Human Goals

Goal	Description
Goals referring to the relation between person and environment	
Integrative social relationship goals	
Belongingness	Building or maintaining attachments, friendships, intimacy, or a sense of community and social identity. Avoiding feelings of social isolation or separateness.
Social responsibility	Fulfilling social roles, effort in keeping interpersonal commitments, conforming to social moral-cultural rules, often independent of close relationships. Avoiding social transgressions and unethical or illegal conduct.
Equity	Promoting fairness, justice, and reciprocity. Avoiding unfair or unjust actions.
Resource provision	Providing support, assistance, advice, and validation for others. Avoiding selfish or uncaring behavior.
Self-assertive social relationship goals	
Individuality	Feeling unique, special, or different. Avoiding similarity or conformity with others.
Self-determination	Experiencing a sense of freedom to act or make choices. Personal control, freedom, autonomy. Avoiding the feeling of being pressured, constrained, or coerced.
Superiority	Comparing favorably to others in terms of winning, status, or success. Social status or importance, dominance, and winning. Avoiding unfavorable comparisons with others.
Resource acquisition	Obtaining approval, support, assistance, or advice from others. Avoiding social disapproval or rejection.
Task goals	
Mastery	Improving one's performance or meeting a standard of achievement. Avoiding incompetence and decrements in performance.
Management	Maintaining order, organization, or productivity in daily life tasks; handling routine tasks, organizing people or things, or being productive. Avoiding inefficiency, sloppiness, or disorganization.
Material gain	Obtaining or accumulating money or tangible goods. Avoiding the loss of money or material possessions.
Safety	Being unharmed, physically secure, and free from risk. Avoiding threatening or depriving circumstance.
Task creativity	Inventing new processes or products. Avoiding tasks that do not provide opportunities for creative action.
Goals referring to the person	
Affective goals	
Entertainment	Having fun, seeking heightened arousal, or avoiding boredom.
Tranquillity	Experiencing peace of mind, serenity, and avoiding stress.
Happiness	Experiencing feelings of joy, satisfaction, or well-being.
Bodily sensations	Experiencing particular bodily sensations or experiencing physical movement. Highs a person wishes to experience or unpleasant sensations a person would like to avoid. Short-term consequences.
Physiological well-being	Experiencing desired physiological states or feeling healthy. Long-term consequences.
Cognitive goals	
Positive or confirmatory self-evaluations	Experiencing self-efficacy, self-esteem, self-acceptance, or self-worth.
Understanding	Ordering, categorizing, explaining, or making sense.
Exploration	Experiencing curiosity, intellectual stimulation, or learning.
Intellectual creativity	Inventing new ideas or expanding one's limits.
Subjective organization goals	
Unity	Seeking coherence, harmony, or oneness.
Transcendence	Rising above ordinary experience, pursuing an idealized state, or spirituality.

Note. This table adapted from Ford and Nichols (1991).

state (e.g., "My father is angry because I did not prepare well for the math exam") and the desired end state. By contrast, undesired end states (e.g., "I do not want to be bullied in class") are part of a positive feedback loop, that is, individuals want to increase or amplify the discrepancy between the undesired end state and the actual state (e.g., "Paul is again bullying some group members"), and this may lead to various forms of disengagement. Many researchers refer to these two types of goals as *approach* and *avoidance* goals. It is

clear that approach and avoidance goals fuel students' engagement and disengagement patterns in learning settings (Carver & Scheier, 2000).

Another aspect of control theory is that goals are defined at various levels of abstraction, namely, at the superordinate or higher order goal level, at the intermediate level, and at the subordinate or script level. The goal hierarchy that is depicted in Figure 1 consists of the self-generated goals that a 15-year-old boy described in a narrative about the most sa-

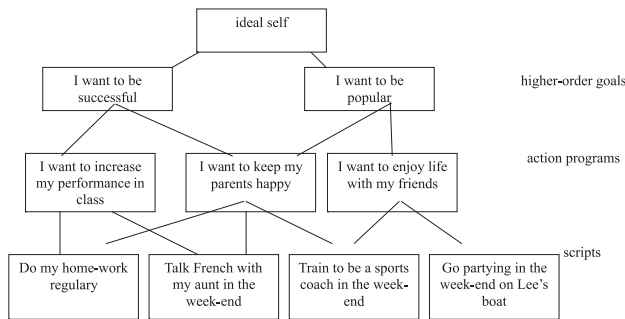


FIGURE 1 Section of a student's goal hierarchy illustrating the relation between higher order goals, action programs, and scripts.

lient goals in his life. It illustrates how lower order goals are linked to goals located higher up in the goal system. Higher order goals, which Carver and Scheier refer to as “I want to be” goals, are located at the highest level in the hierarchy; they specify the quality of all the goals that are attached to them lower down the hierarchy. In other words, higher order goals give meaning to a person's life and are closely linked to his or her values and personality traits. Figure 1 shows that “do goals” are located at the intermediate level. The do goals comprise personal projects or concrete action programs that are attached to one or more higher order goals; the steps that are specified in an action program help an individual to direct, monitor, and coordinate his or her behavior as a function of the values specified in the higher order goals to which the action program is attached. As can be viewed from Figure 1, a do goal such as “I want to increase my performance in class” is an approach goal that consists of an action program that can be performed to satisfy two higher order goals. As mentioned previously, approach goals are contrasted with avoidance goals, where a student's major concern is to avoid undesired consequences (e.g., “I want to hide poor performance” and “I do not want to embarrass my family”). Do goals are attached to concrete behavioral sequences of actions, called *scripts*, that are located at the lowest level of the goal hierarchy (see also Boekaerts & Niemivirta, 2000). Scripts specify in detail how an action program can be achieved in a given context; hence, environmental affordances and constraints are taken into account. Examples of scripts that might be attached to the do goal “I want to increase my performance in class” are “Do my homework regularly” and “Talk French with my aunt in the weekend.”

It is important to realize that environmental affordances and constraints affect goals not only at the script level but in fact at all levels of the goal hierarchy. As argued previously, goals—as the driving forces of action—need to be understood in a multiple-level perspective. We assume that goals that are located at the apex of the hierarchy (i.e., “to-be” goals that are directly linked to the self, such as “I want to be popular”) are relatively more stable and consistent than goals located at lower levels. Accordingly, we as-

sume that higher order goals are grounded in broad societal values, shared norms and beliefs, and sociocultural practices and that pursuit of these goals is generally reinforced and rewarded in the broad communities to which individuals belong (see also Boekaerts, 1998b; Schweder et al., 1998). We further assume that the action programs and scripts, which have been attached to these higher order goals, are valued, reinforced, and rewarded by primary socializing agents on a regular basis (e.g., by parents, siblings, peers, teachers).

Scrutiny of Figure 1 informs the reader that the connections among the goals form the elements of a means-end, hierarchical network that is unique to an individual student. Note that most of the goals at the script level have multiple connections with midlevel goals, yet some of these goals may be in harmony whereas others are in conflict. A schematic representation such as the one depicted in Figure 1 provides insight into the patterns of alignment and conflict between the boy's achievement and social goals. For example, the midlevel achievement goal “I want to increase my performance in class” is aligned with the midlevel social goal “I want to keep my parents happy”, but this might—at times—be in conflict with the midlevel social goal “I want to enjoy life with my friends.” Note that all the midlevel goals and the scripts have been formulated with desired end states in mind and that there are multiple connections between these two levels. Three lower order social goals are listed, and two of these goals, namely, “train to be a sports coach in the weekend” and “talk French with my aunt in the weekend,” are in alignment with the boy's social goal of keeping his parents happy. The social script “go partying in the weekend on Lee's boat” seems to be in conflict with the social goal of keeping his parents happy, and it might also interfere with other social goals. In his narrative and subsequent interview, the boy indicated that he intended to do his homework regularly and also talk with his aunt regularly but that he wanted to decide for himself when these activities interfered with important other social goals. Shortage of time and resources in the weekend often meant that a choice had to be made between important desired end states.

In summary, we agree with Ford (1992) that lower order goals that have multiple connections with action programs and higher order goals have higher motivational significance for engaging in action than isolated goals, because the person has more than one reason for engaging in a course of action. In accordance with Austin and Vancouver (1996), we want to add that environmental conditions influence goal-directed behavior in a favorable or unfavorable way. Boekaerts (2002) suggested that perception of social pressure (e.g., “I have to do it to please my parents, or my teacher”) might turn a desired end state (e.g., “I want to do my homework regularly”) into an undesired one at that particular moment in time (e.g., “I do not want to be controlled by my parents”). Boekaerts (2002, 2003b) put it as follows:

It is important to distinguish between goal-directed behavior where the meaning and value comes from the Self and goal-directed behavior where individuals pursue goals that are valued by others, either because they cannot avoid these goals or are prepared to endorse them. Clearly, many goals that individuals pursue in real life situations are located in-between goals that are truly valued by the Self and imposed goals. Nevertheless, the distinction is crucial because there is emerging evidence (e.g., Kuhl and Fuhrman, 1998; Kehr, Bless, & Rosenstiel, 1999) that the self-regulatory processes that steer and direct individuals' behavior toward those two different types of goals are at variance.

A great deal is still to be learned about desired and undesired end states that students typically rely on to steer and direct their self-regulation processes in the classroom. Research and theorizing in self-regulation in the classroom has followed many avenues in the last decades (for a review, see Boekaerts & Corno, 2005). We feel that the greatest challenge for the next decade is to specify in detail how different content goals interact in the new learning settings that have been designed to allow students more choice of activities. In the next section, we present a goal framework that has inspired us to take a new look at goal-directed behavior.

A GOAL FRAMEWORK THAT CAPTURES THE NEW INSTRUCTIONAL LANDSCAPE

As mentioned previously, researchers in educational psychology have accrued a vast body of knowledge about the effect that achievement values exert on students' intention to learn, their engagement patterns, and achievement (Eccles & Wigfield, 2002). There is widespread consensus that achievement values, as well as expectancy-related beliefs, predict the choices students make in the classroom and the way they profit from different learning opportunities. However, as Zimmermann (2000) illustrated, some learning environments do not allow students much latitude in choice of activities, implying that they are severely restricted in the extent to which their personal goals can steer and direct their self-regulation processes. We have already argued that classrooms that have introduced, fully or partially, the principles of social constructivism and community of learners have legitimized multiple content goals that might have been viewed as peripheral in the past. In these new learning environments, students' engagement is characterized as participation in socially relevant learning activities, meaning that social goals that are located at different levels in the goal hierarchy interact with achievement and security goals, to name just a few. Hickey and McCaslin (2001) argued in this respect that researching goal-directed behavior and engagement patterns in these new settings involves understanding how students with multiple content goals coregulate each other as they pursue their own goals. McCaslin (2004) and Hickey and Granade (2004) went one step further and

pointed to the crucial role that contextual cues play in the meaning generation process. Hickey and Granade challenged the view that values and goals are resident in the hearts and minds of students; instead they argued that values and goals that support students' engagement or disengagement in different learning contexts have a reciprocal relationship with the contexts within which students learn. Hickey and Granade looked at goal-directed behavior through a sociocultural lens. Their insights are highly relevant to education researchers who want to examine the effect of sociocontextual factors on students' multiple-goal pursuit in different educational settings.

We searched the literature for creative attempts to connect multiple content goals to the motivation processes that individuals use to energize, steer, and direct their behavior. We were disappointed with what we found until we came across Schwartz's empirically based value types and his conceptualization of the motivation processes that connect the different value types. In the next section we describe this framework briefly.

The Theory of Basic Human Values

Schwartz and colleagues (Schwartz, 1992; Schwartz & Bardi, 2001; Struch, Schwartz, & Van der Kloot, 2002) have assumed that a largely shared, pan-cultural value hierarchy lies hidden behind the striking value differences that materialize when one observes interaction patterns in different cultures. They theorized that there are three universal requirements of human existence: biological needs, demands of group survival and functioning, and requisites of coordinated social interaction. These universal requirements underlie 10 motivationally distinct, broad types of values, also called *trans-situational goals* (i.e., power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security). The theory of basic human values defines value types as "desirable trans-situational goals, varying in importance, that serve as guiding principles in people's life" (Schwartz et al., 2001, p. 521). Schwartz and colleagues assumed that, together, the 10 motivationally distinct value constructs represent the core guiding principles that are recognized in cultures around the world. They explained that value transmission takes place through modeling, reinforcement, and teaching by members of one's own culture. This ensures that particular behaviors are considered socially appropriate or inappropriate and act as internalized guides (and concrete targets) for the behavior of individual group members.

On the basis of their extensive research, Schwartz and colleagues proposed a theoretical model that describes the content of the 10 different types of values as well as the conflicts and congruities among the values. The circular structure depicted in Figure 2 describes the relations among the 10 core values and is based on the compatibility and incompatibility of the value types. The two orthogonal dimensions shown in

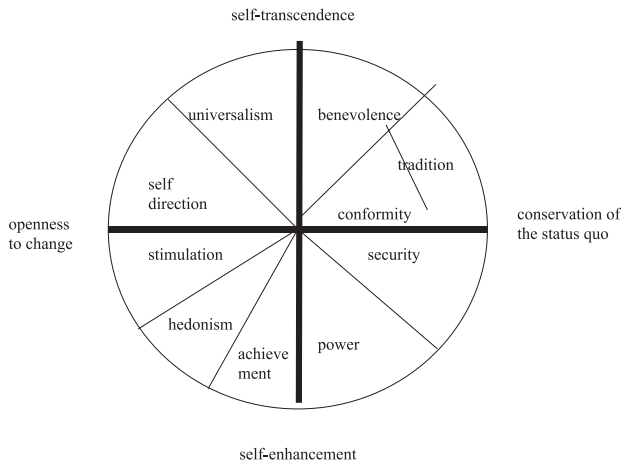


FIGURE 2 Theoretical model of the structure of relations and 10 values (Schwartz & Bardi, 2001).

this figure summarize the structure of the relations between the value types. The first orthogonal dimension (vertical axis) ranges from self-transcendence to self-enhancement. The second asymmetry extends from openness to change to the conservation of the status quo. As can be viewed from the figure, achievement and power values flank the self-enhancement pole of the vertical dimension and benevolence and universalism flank the self-transcendence pole of that dimension. Schwartz and Bardi (2001) argued that power and achievement values highlight the pursuit of self-interest and are motivationally incompatible with the benevolence and universalism values that express concern for others. Self-direction and stimulation flank the openness-to-change pole of the horizontal axis, and security, tradition, and conformity characterize the conservation of the status quo. These investigators proposed that independent thoughts, feelings, and action and readiness for new experiences are the hallmarks of self-direction and stimulation values (openness to change) and that these value types are motivationally incompatible with conformity, tradition, and security (conservation of the status quo) that typically underlie dependence, self-restriction, order, and resistance to change (see Table 2).

The theory assumes that the closer to one another any two value types are located in either direction around the circle, the more similar their underlying meaning and motivation. By the same logic, the more distance there is between any two values in specific samples, the more antagonistic their underlying meaning and motivation. For example, imagine that a researcher examined whether students from different cultural groups perceive the value item “being helpful” differently. He or she finds that one group has listed “being helpful” with conformity items, a second group with security items, and a third group with benevolence items. The location of the construct tells us something about the meaning that “being helpful” has acquired in the respective groups and thus about the meaning assigned to this value item in the re-

spective groups. The third group differs more from the second group than from the first group because the distance around the circle is greater for the former two groups than for the latter two.

Analyses in more than 200 samples from 60 countries in five continents support the circular structure and the specified relations between the 10 value types (Schwartz et al., 2001; Schwartz & Bardi, 2001; Schwartz et al., 2001). Schwartz and Bardi (2001) also found widespread consensus regarding the importance attached to the 10 value types across nations, age groups, and gender; benevolence, self-direction, and universalism values were consistently rated as “most important” and power, tradition, and stimulation as least important. Security, conformity, and achievement were located in the middle of the hierarchy, closely followed by hedonism.

Schwartz's Value Framework and Goal-Directed Learning in the Classroom

Schwartz's conceptualization of trans-situational goals and the motivation processes that are related to these goals is unique in its kind, not so much because it describes the content of trans-situational goals—in that respect it is akin to Ford's (1992) taxonomy of goals—but because it describes the relationship among these goals. To our knowledge, educational psychologists or motivation researchers have never considered Schwartz's theory of basic human values. Yet, we think it is an excellent tool for considering those goals that are compatible with one another in specific learning settings and those that—by their very nature—represent opposite directions for the pursuit of action plans and to-be goals. Although we realize that Schwartz's values are much more stable and general than the content goals that Ford described in his goal taxonomy, we see many similarities as well. Schwartz's values connect to the highest level of Carver and Scheier's (2000) hierar-

TABLE 2
Description of the 10 Value Types

<i>Value Type</i>	<i>Definitions of Value Types in Terms of Goals</i>
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
Tradition	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provides
Security	Safety, harmony, and stability of society, of relationships, and of self
Self-direction	Independent thought and action (choosing, creating, exploring)
Stimulation	Excitement, novelty, and challenge
Hedonism	Pleasure and sensuous gratification of oneself
Achievement	Personal success through demonstrating competence according to social standards
Power	Social status and prestige, control, or dominance over people and resources
Universalism	Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact

chy of goals, where the ideal Self, social identity, and to-be goals are generated. As argued previously, we assume that goals at the highest level are influenced by broad societal values, shared norms, and beliefs about sociocultural practices. Ford's goals seem to be located at the intermediate level, representing personal projects that the individual pursues in that period of his or her life. Boekaerts (2003b) assumed that these goals have been established in reciprocal interactions with peers, siblings, and parents in a variety of different settings.

It is evident that the vertical asymmetry used by Schwartz and colleagues to describe two different patterns of value types, namely, self-enhancement and self-transcendence, is similar in nature to Ford's desired within-person versus desired person-environment consequences. Ford made it clear that a student's purpose to engage in thoughts and actions in the classroom might differ as a function of the type of content goals that become salient in a particular learning context: When desired within-person consequences are dominant, students strive to develop or stabilize their self-interests, whereas a focus on desired person-environment consequences might instigate action to develop or stabilize one's interest in the welfare of others. The self-enhancement versus self-transcendence asymmetry is well accepted in the literature on cross-cultural differences. Markus and Kitayama (1991) and Kitayama and Markus (1999) have argued that in most Western cultures, students are viewed as autonomous persons with distinctive characteristics. They are encouraged by their parents and teachers to be independent, to be optimistic, to focus on their strengths, and to boost their self-efficacy and self-esteem. The culturally accepted way of boosting self-esteem in Western countries gives rise to a conceptualization of learning and achievement that is individualistic in nature and contrasts with the empowerment principle that is adhered to in Asian cultures. Kitayama and Markus explained that, similar to Western countries, Asian cultures value achievement goals but these goals are intertwined with self-transcendence goals. Asian parents and teachers view the self as fluid. It should be improved in accordance with one's fixed social role. In childhood and adolescence, the fixed social role is the student role, which implies that juveniles invest effort to reach excellence (achievement goals) and avoid embarrassing their family (social harmony). An accumulating body of research evidence shows that socialization patterns in different cultures create a dominance pattern of self-enhancement over self-transcendence, or vice versa (for further discussion, see Boekaerts, 1998b, 2003a, 2003b; Higgins, 1997). For example, Higgins described how specific styles of care-taking increase the likelihood that children acquire a strong "ideal self" that represents their aspirations, hopes, and wishes for the future or strong "oughts" that represent obligations, duties, and responsibilities. Higgins argued that these generalized patterns might act as internal guides for self-regulation in concrete learning situations.

In the next section, we examine the literature on the effect of contextual features on motivation in an attempt to answer

the following question: What is presently known about the effect of environmental conditions on the activation of different content goals?

TRACKING PRESENT KNOWLEDGE ON MULTIPLE GOALS

The value hierarchy presented by Schwartz and his colleagues can be used to address many questions. For example, researchers can debate the psychological reality of the different values that Schwartz described and explore the similarities and differences between the different goal categories and the overlap between them. Schwartz and colleagues likened value types with trans-situational goals, but the link has not been described in great detail. Accordingly, researchers should examine the psychological validity of the value hierarchy for the study of goal-directed behavior in the classroom. For example, the psychological validity of the self-enhancement versus self-transcendence asymmetry should be investigated in the classroom in close proximity to the openness-to-change and conservation-of-the-status-quo dimension. The value framework can also be used to detect gaps in our knowledge about the nature of the different content goals that students bring to the classroom, their interrelations, and the effect that environmental conditions have on the activation of different content goals. In the remainder of this article, we address the latter question.

Since Ames's (1992) review, "Classrooms: Goals, structures, and student motivation", numerous studies have shown that situation characteristics (e.g., the content and perceived difficulty level of the learning tasks that are set, the evaluation procedures that are used, and the student-teacher interaction patterns that are dominant in the classroom) trigger different motivational orientations. Ames predicted that, in turn, goal orientation affects students' cognitive engagement and motivation. Several studies confirmed the covariation of situational characteristics and students' goal-directed behavior. We searched¹ the literature for studies that examined the relation-

¹We included only journal articles that were published in English and reported empirical studies dealing with the covariation of situational characteristics and motivation in the classroom. As a first source, we used the reference lists of review studies on relevant topics in the *Educational Psychology Review*. A literature search in PsycINFO, beginning in 1992, the year that Ames published her review, was also conducted; it covered both educational and developmental studies. Search terms were (combinations) of the following terms: *classroom goal structure, motivation, engagement, goals, goal preference, goal orientation, task, task choice, evaluation, feedback, and classroom climate*. We eliminated those studies that made unjustified claims with respect to causality between contextual variables and motivation. For instance, Kinderman (1993) studied the relationship between peer networks and motivation. He reported a link between peer networks as a motivational context and the motivation displayed by individual members of the networks. However, the causation claim is not warranted because it presupposes that a clear distinction can be made between selection and socialization effects. Comparable causation problems were found with a variety of other studies (e.g., Self-Brown & Mathews, 2003; Turner, Meyer, Midgley, & Patrick, 2003).

ship between contextual variables and aspects of students' motivation. We included peer-reviewed journal articles only. Although we searched for both educational and developmental studies, we ended up with only 19 studies, most of which were educational studies. Many developmental studies appeared to be published in books (for a review, see Wigfield, Eccles, & Rodriguez, 1998). The published studies vary in terms of the choices made and the specification given of the characteristics of the learning situation, the operationalization of student engagement, and the type and number of content goals studied. We categorized the dependent variables that were used in the 19 selected studies in terms of the 10 value types described by Schwartz and his colleagues. Figure 3 summarizes the results. A detailed description of the reviewed studies can be found in Table 3. The table provides information on the nature of each study, the number of subjects, type of school, method used, contextual variables under investigation, dependent measures, and reported results. Comparison of columns 7 and 9 informs the reader as to how we translated the operationalizations of motivation that were used in the respective studies into Schwartz's value types.

After reading the Design column in Table 3, the reader will be convinced that researchers have used a variety of methods to describe the relationships between situational characteristics and motivation. Correlational studies, using student self-reports as the most important or sole assessment instrument, were dominant. Very few experimental or quasi-experimental studies have been reported. Most studies were done with relatively young students (elementary school or middle school). University students participated in two studies, and the adolescent age period was covered in only one study.

What can be learned about the focus of the reviewed studies, and more particularly, how well did these studies address goal multiplicity and hierarchicality? Eight of the 10 universal value types were the objects of investigation in these empirical studies. Two value types were not covered in any of the studies, namely, tradition and universalism. Most studies

focused on values that are linked to the self-enhancement end of the vertical axis. Self-direction and stimulation were assessed most frequently (in 13 studies), followed by achievement (10), power (9), conformity (8), security (8), and hedonism (3). Only 3 studies focused on values that were linked to the self-transcendence end of the vertical axis (benevolence). Self-enhancement goals were sometimes studied from an openness-to-change perspective and sometimes from a conservatism perspective. Only two studies combined the value types benevolence and hedonism, namely, the studies by Wentzel (1998) and by Hicks and Anderman (1999).

A question that should be raised here is the following one: Did these studies examine the effect of situational characteristics on the pursuit of multiple higher order goals simultaneously? Three studies dealt with a single value type, namely, Studies 4 (stimulation), 12 (conformity), and 15 (achievement). Four studies examined two value types simultaneously, namely, Studies 3 and 13 (stimulation and self-direction), 11 (power and security) and 17 (conformity and benevolence). Two studies focused on three value types, namely, Studies 9 (self-direction, power, and security) and 14 (self-direction, conformity, and security). Six studies simultaneously assessed four value types, namely, Studies 2 (achievement, self-direction, power, and security), 7 and 10 (stimulation, achievement, self-direction, and power), 8 (stimulation, achievement, self-direction, and security), 18 (stimulation, achievement, conformity, and benevolence), and 19 (stimulation, self-direction, conformity, and hedonism). Two studies covered five value types, namely, Studies 5 (self-direction, achievement, security, stimulation, and power), and 16 (stimulation, achievement, self-direction, power, and conformity). Finally, two studies dealt with more than five value types simultaneously, namely, Studies 1 (stimulation, self-direction, power, achievement, security, and conformity) and 6 (stimulation, achievement, self-direction, power, conformity, security, hedonism, and benevolence).

Another question that should be addressed in the context of our discussion on multiplicity and hierarchicality of goals is this one: Was the link between different content goals examined explicitly in the reviewed studies? Two research teams, namely, Gagné and Zuckerman (1999) and Urdan and Midgley (2001), have mentioned that the link between the different content goals should be examined more closely in future studies. Townsend and Hicks (1997) stated that it is unclear when holding multiple goals is an adaptive behavior and when it becomes problematic. These investigators encouraged researchers to examine more closely how task orientation interacts with social satisfaction, and how the connections between social and learning goals change with school experiences in the different content domains. Yet another question that begs answering is this one: Does Schwartz's conceptualization of trans-situational goals provide a useful basis for considering which goals may be compatible with one another and which goals represent—by their very nature—opposite directions for

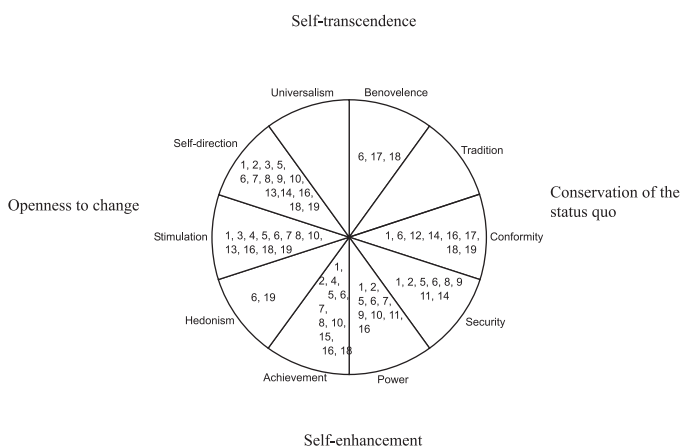


FIGURE 3 Value structures ascertained in studies exploring the relation between situational variation and students' motivation or goal preferences. Note. Numbers correspond to the study numbering given in Table 3.

TABLE 3
A Review of Studies Exploring the Relation Between Situational Variation and Students' Motivation or Goal Preference

Publication	Design	N	School Type	Contextual Variables	Instrument-Measure	Dependent Variables	Instrument-Measure	Value Structure	Results
1. Ben-Ari & Eliassy (2003)	E	276 Grade-6 students	Elementary school	Frontal instruction (teacher-directed, no task, and pace differentiation) versus complex instruction (student-directed, task differentiation, cooperative learning) <u>Perception of classroom goal structure</u> (mastery or performance)	MC SR	Personal goal orientation: <u>Mastery</u> (I like my schoolwork best when it really makes me think) <u>Performance-approach</u> (Doing better than other students in this class is important to me) <u>Performance-avoid</u> (The reason I do my work is so others won't think I'm dumb) <u>Achievement motivation</u> (willingness to invest effort, challenge seeking, persistence, involvement)	SR	Stimulation, self-direction Power, achievement Security, achievement Achievement Stimulation Self-direction Conformity	Complex instruction resulted in higher scores for mastery classroom goal orientation, personal mastery goals, and achievement motivation than did frontal instruction. Frontal instruction resulted in higher scores for the two measures of personal performance goals. Students' perceptions of the classroom goal structure corresponded to their personal goal orientations. In the complex instruction context, a performance classroom goal orientation was unrelated to students' achievement motivation, whereas the two were negatively correlated in the frontal instruction context.
2. Butler & Neuman (1995)	E	159 Grade-2 and Grade-6 students	Elementary school	<u>Task focus versus ego focus instructions</u>	MC	<u>Help avoidance</u> due to desire <u>for independent mastery</u> , to mask incompetence, or because it was deemed unnecessary <u>Help seeking</u> to promote mastery, because task was deemed difficult, to succeed, or to avoid effort	O and I	Achievement, self-direction Security, power Self-direction	Help seeking occurs more frequently in a mastery-oriented context than in a performance-oriented one. In the mastery goal-oriented context, help avoidance was related to striving for independent mastery; whereas in a performance goal-oriented context, it could be explained in terms of masking incapacity.
3. Cordova & Lepper (1996)	E	70 Grade-4 and Grade-5 students	Elementary school	<u>Contextualization</u> and personalization of learning tasks and choice of particular task characteristics	MC	<u>Intrinsic motivation</u> (liking of learning of games; and liking of games as compared to favorite board game and favorite subject)	SR	Stimulation, self-direction	Motivation and involvement of students in the contextualized condition was greater than of students in the noncontextualized condition. Personalization and choice had a further cumulative effect on children's motivation and involvement.

4. Gagné & Zuckerman (1999)	E	218	University under-graduate students	Evaluation potential (the possibility that others evaluate one's performance) <u>Manipulation of goal orientation</u> (performance goal vs. learning goal)	MC	<u>Social loafing and social facilitation</u> measured in terms of a brainstorming task (uses for a knife)	AT	Stimulation	Performance goal instructions facilitated increases in effort more in persons working together on a learning task than task or learning goal instructions.
5. Greene, Miller, Crowson, Duke, & Akey (2004)	CS	220	High school students	<u>Classroom goal structure</u> : <u>Mastery evaluation</u> (Assignments and tests are returned in a way that keeps individual student grades private) <u>Autonomy support</u> (The teacher wants us to take responsibility for our learning) <u>Motivating tasks</u> (Activities and assignments are interesting)	SR	<u>Perceived instrumentality</u> (My performance is important for becoming the person I want to be) <u>Mastery goals</u> (Learning the ideas and skills in this class is enjoyable) <u>Performance—approach goals</u> (I want to look smart to my friends)	SR	Self-direction, achievement, security Stimulation, self-direction Power, achievement	Students' evaluation of motivating tasks and autonomy support were positively correlated with their mastery goal orientation and their evaluations of perceived instrumentality. Mastery evaluations did not contribute to the prediction of personal goals.
6. Hicks & Anderman (1999)	LS	660	Transfer from elementary to middle school	<u>Transition from primary to middle school</u> linked to <u>classroom task goal structure and classroom ability goal structure</u>	AC SR	<u>Personal task goal orientation</u> (I like school work best when it really makes me think) <u>Approach ability goal orientation</u> (I want to do better than other students in my classes) <u>Social goals</u> (students' responsibility: I try to do what my teacher asks me to do; <u>relationship</u> : I would like to get to know my school friends well; and <u>status goals</u> : It's important to me to belong to the popular group at school)	SR	Stimulation, self-direction Power, achievement Benovelence, conformity Hedonism Power, security	Perceived classroom goal orientation had unique contribution to personal goal orientation.

(continued)

TABLE 3 (Continued)

<i>Publication</i>	<i>Design</i>	<i>N</i>	<i>School Type</i>	<i>Contextual Variables</i>	<i>Instrument-Measure</i>	<i>Dependent Variables</i>	<i>Instrument-Measure</i>	<i>Value Structure</i>	<i>Results</i>
7. Kaplan & Maehr (1999)	CS	168 Grade-6 students	Elementary school	School's task and ego orientation	SR	<u>Personal task goals</u> (I like school/work the best when it really makes me think) <u>Personal ego goals</u> (I wish we had schoolwork that would let me show I'm smart)	SR	Stimulation, self-direction Achievement, power	Classroom goal orientation (task goal or ego goal) covaried with personal goals.
8. Mueller & Dweck (1998)	E	128 Grade-5 students, 51 Grade-5 students, 88 Grade-5 students, 51 Grade-5 students	Elementary school	Praise for ability or effort	MC	<u>Performance goals</u> (I would like to work on problems that are pretty easy, so I'll do well) <u>Learning goals</u> (I would like to work on problems that I'll learn a lot from, even if I won't look so smart)	Ch	Security, achievement Stimulation, self-direction	Praise for intelligence or ability encourages students to adopt a performance goal orientation. Praise for effort stimulates children's task-related interests. Students used to praise for intelligence were more disappointed and showed more signs of disengagement, lack of task persistence, and task enjoyment upon task failure.
9. Newman & Schwager (1993)	CS	177 Grade-3, Grade-5, and Grade-7 students	Elementary school and middle school	Teachers' and classmates' attitudes toward help seeking Teacher-student relationship	SR and I	<u>Likelihood of asking questions</u> <u>Liking to ask questions</u>	SR and I	Self-direction, power, security	A sense of personal relatedness with the teacher facilitated help seeking; 5th and 7th graders, but not 3rd graders, were more likely to seek help when the teacher explicitly encouraged them to do so.
10. Roeser, Midgley, & Urdan (1996)	CS	296 Grade-8 students	Middle school	Perceived schools' goal orientation (ability goal structure vs. task goal structure) Perceived student-teacher relationships (school belonging)	SR	<u>Mastery goal orientation</u> (preference for challenging work and learning new things) <u>Relative ability goals</u> (be recognized by teachers and parents for ability relative to others)	SR	Stimulation, self-direction Achievement, power	Perceived school task goal structure was positively correlated to academic self-efficacy, mediated by personal mastery goal orientation and a sense of school belonging. Perceived school ability goal structure was related to academic self-consciousness, mediated by personal performance orientation.
11. Ryan, Gheen, & Midgley (1998)	CS	516 Grade-6 students in 63 math classrooms	Middle school	Classroom goal structure and the classroom social climate	SR	<u>Avoidance of help seeking</u> (If my math work is too hard for me, I just don't do it rather than ask for help)	SR	Power, security	Help avoidance was stronger when students perceived stronger classroom performance goal orientation, whereas it was weaker when they perceived a stronger classroom task goal orientation.

12. Sage & Kindermann (1999)	CS	22 Grade-5 students	Elementary school	<u>Contingent (dis)approval</u> of classmates	O	<u>Engagement</u> (teacher evaluation: In my class this student acts like he or she is working) <u>Involvement</u> (observations of active on-task behavior, active off-task behavior) <u>Dynamic aspect of self-regulated learning</u> (task goal orientation; When I study, what keeps me going is curiosity and interest)	TR	Conformity	The more motivated children were for schoolwork, the more likely they were to experience approval for on-task behavior from their friends. Less motivated students only received positive approval for on-task behavior from their teachers.
13. Schapiro & Livingston (2000)	E	342 students	University	<u>Training program</u> stimulating active learning	MC		SR	Stimulation, self-direction	A program characterized by explicit instruction, modeling, peer interaction, mentoring, and personal feedback improved students' cognitive and motivational self-regulation during learning.
14. Skinner & Belmont (1993)	LCS	14 teachers, 144 Grade-3 to Grade-5 students	Elementary school	<u>Teacher involvement, structure, and autonomy support</u>	TR SR	<u>Student engagement</u> (When faced with a difficult problem this student doesn't even try). <u>Student engagement</u> (When I'm in class I usually think about other things)	TR	Conformity, security	Students experiencing autonomy support and optimal structure were more likely to be more effortful and persistent while completing learning tasks. Children experiencing their teachers as warm and affectionate felt happier and more enthusiastic in class, and their emotional engagement was stronger.
15. Townsend & Hicks (1997)	CS	162 Form 2 students	Middle school	<u>Perceived classroom competition and task orientation; Cooperative versus noncooperative learning settings</u> <u>Positive orientation of friends (group norms and peer pressure)</u> <u>Negative orientation of friends (group norms, peer pressure, and priority of social concerns over academic concerns)</u>	SR	<u>Academic task values</u> (no sample items given)	SR	Achievement	Task values were evaluated higher in classes with a cooperative goal structure.
16. Urda (1997)	CS	260 Grade-8 students	Middle school		SR	<u>Task goals</u> (I like schoolwork the best when it really makes me think) <u>Relative ability goals</u> (I like schoolwork that lets me show how smart I am) <u>Extrinsic goal orientation</u> (I do my work because it's required, not because I want to). <u>Effort avoidance</u> (I like schoolwork best when I can finish quickly)	SR	Stimulation, self-direction Achievement, power Conformity Conformity	Students striving for mastery and high achievement were more likely to have friends who themselves strived for these qualities and encouraged others toward effort and achievement in school.

(continued)

TABLE 3 (Continued)

Publication	Design	N	School Type	Contextual Variables	Instrument-Measure	Dependent Variables	Instrument-Measure	Value Structure	Results
17. Wentzel (1994)	CS	475 Grade-6 and Grade-7 students	Middle school	<u>Perceived teacher social support and academic support</u> (My teacher really cares about me; My teachers like to help me learn) <u>Perceived peer social support and academic support</u> (My classmates care about my feelings; My classmates care about how much I learn)	SR	<u>Academic prosocial goals</u> (How often do you try to share what you've learned with your classmates?) <u>Academic social responsibility goals</u> (How often do you try to do what your teacher asks you to do?)	SR	Benovelence Conformity	Perceived peers' academic support predicted both students' academic prosocial and academic social responsibility goal pursuit. Perceived teacher's academic support predicted students' prosocial goal pursuit, whereas perceived teacher's social support predicted students' social responsibility goal pursuit.
18. Wentzel (1998)	CS	167 Grade-6 students	Middle school	<u>Perceived peer social support and academic support</u> (My classmates care about my feelings; My classmates care about how much I learn) <u>Perceived teacher social support</u> (My teacher really cares about me) <u>Family cohesion</u> (supportive relationships with parents; family members really support each other)	SR	<u>Performance goal orientation</u> (I feel really pleased when I know more than others) <u>Mastery goal orientation</u> (I feel really pleased when something I learn makes me want to find out more) <u>Social goal pursuit</u> (How often do you try to help your classmates solve a problem once you've figured it out?; How often do you try to do what your teacher asks you to?)	SR	Achievement, power Stimulation, self-direction Benevolence, conformity	Perceived peer support predicted social responsibility goal pursuit. Perceived parent and teacher support predicted both interest in school and goal pursuit. Perceived peer and parent support also buffered against students' emotional distress and indirectly contributed to the prediction of school interest.

19. Wentzel & Asher (1995)	CS	423 Grade-6 and Grade-7 students	Middle school	<u>Sociometric status</u> (best friend nominations; How much would you like to be in school activities with this person?)	SR	<u>School motivation:</u> (How often does this student show an interest in schoolwork?; How often does this student show concern with evaluation?) <u>Satisfaction with school:</u> (I like school very much) <u>Commitment to classwork:</u> (I hardly ever do anything exciting in class; I daydream a lot in class)	TR	Stimulation, self-direction, conformity	Neglected children scored higher on all motivation measures than students with an average sociometric status classification. Aggressive rejected children scored lower on teacher reported interest in schoolwork than students with an average sociometric status classification.
								Conformity	
								Conformity, hedonism	

Note. MC = manipulated or experimental condition; SR = student report; O = observation; I = interview; E = experiment; CS = correlational study; LS = longitudinal survey; LCS = longitudinal correlational study; AT = achievement task; AC = available condition; Ch = choice of tasks; TR = teacher report.

to-be goals and action plans? A preliminary answer can be offered by examining the correlations between the motivation variables that were reported in the reviewed studies. We interpreted Schwartz's dimensionality assumption as follows: Motivational aspects categorized in value domains that can be found at a common end of Schwartz's dimensions should be positively correlated (e.g., self-direction and stimulation, achievement and power, and conformity and security). By contrast, motivational aspects categorized in value domains that are at opposite ends of the dimensions should be negatively correlated (e.g., self-direction and conformity, and stimulation and security). In other words, positive correlations are viewed as a sign of alignment between aspects of motivation (goal-directed behavior), whereas negative correlations indicate goal conflicts.

A variety of studies (Studies 14, 16, 18, and 19) combined goals representing openness to change (self-direction and stimulation) with conformity, which is at the conservation-of-the-status-quo end of Schwartz's value dimension. We would expect negative correlations between these goal domains. Actually, the only study that reported negative correlations ($-.30$ and $-.47$) is the study by Urdan (1997). Studies 14 and 18 reported modestly positive correlations, and Study 19 showed a positive correlation of $.67$. Other studies (Studies 5, 7, 10, 16, and 18) combined mastery orientation and performance orientation goals, which were classified as self-direction/stimulation and achievement-power respectively. In view of the placement of these goals in Schwartz's classification system, we did not expect these goals to be correlated, and that is what we actually found. All studies reported correlations close to $.10$, except Study 5, where the correlation was moderately strong ($.33$). When inspecting the pattern of correlations between the different content goals for signs of goal alignment and conflict, we should remain cautious about the dichotomy assumption that underlies the classification of values in Schwartz's system. In recent years, the mutual exclusiveness of values or trans-situational goals, which had traditionally been located at either end of a dimension, has been questioned (e.g., individualist vs. collectivist values; Triandis, McCusker, & Hui, 1990; and learning vs. performance goals; Baron & Harackiewicz, 2000). The international literature on goal orientation is still inconclusive about the relationship between mastery and performance goals (Boyle & Anderson, 2004).

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

We began this article by pointing out that social-cognitive theory has provided significant insights into the way in which students pursue achievement goals. However, achievement goals are not the only goals that students bring to the classroom. We briefly reviewed the work of goal researchers who have worked within different theoretical frameworks and whose work has re-

mained in the periphery of goal research in educational psychology. We introduced Ford's (1992) goal taxonomy, Carver and Scheier's (2000) hierarchical goal model, and Schwartz's trans-situational value structure. We used the first framework to describe the different content goals that might interact in the classroom and the second framework to describe the links that students might establish between different content goals. The third framework was used to explore and categorize the literature that examined contextual effects on goal orientation and engagement in the classroom. In line with Schwartz's reasoning, we assume that a largely shared, pan-cultural value hierarchy lies hidden behind the striking value differences that materialize when one observes goal-directed behavior in a variety of cultures. In our judgment, the different content goals that Ford and his colleagues and Schwartz and his colleagues have proposed in combination with the goal hierarchy that Carver and Scheier introduced may help us as educational psychologists to take better stock of our current knowledge of goal-directed behavior in the classroom.

We used Schwartz's framework to explore the literature on the contextual factors that might bring values and goals to the surface in the classroom in an attempt to point to gaps in our knowledge. An obvious problem when assigning different aspects of goal-directed behavior, as measured in the reviewed studies, to Schwartz's value types is that these aspects of motivation cannot be linked to the value types on a one-to-one basis. For example, in Study 5, we had to assign Greene, Miller, Crowson, Duke, and Akey's (2004) measures of motivation (i.e., perceived instrumentality; e.g., "My performance is important for becoming the person I want to be") to three different value types, namely, self-direction, achievement, and security. Likewise, in Study 18 (Wentzel, 1998), we had to assign the social goal domain to two value categories, namely, benevolence and conformity (e.g., "How often do you try to help your classmates solve a problem once you figured it out?" "How often do you try to do what your teacher asks you to do?") However, inspection of Schwartz's model predicts conflict—or at least lack of alignment—between these different value types. How can this incompatibility be reconciled with our observation that in both Study 5 and Study 18 the respective goal domains were measured with internally consistent scales, suggesting good alignment between the items of the respective scales. Should we conclude that our classifications were erroneous or that Schwartz's model is invalid? There is yet another alternative, namely, that the goal operationalizations used in Studies 5 and 18 lack validity. These alternative hypotheses should be tested empirically. In the meantime, we conclude that the classification of goals, which were defined by educational psychologists, into a system that was developed within cross-cultural psychology is problematic. Indeed, the conceptualizations and operationalizations used within the two systems are not tuned to the task of bridging the gap between these systems. Eccles and Wigfield (2002) equally noted that a variety of operationalizations have been used with respect

to the assessment of similar goal domains. These researchers pointed out that lack of consistency in operationalizations is caused by the fact that research groups differ in their theoretical appreciation of the aspects of motivation under study in the classroom and by their drive to have operationalizations that fit the distinct theoretical approaches closely. Clearly, a lack of consistency in the operationalizations that were used by the different research groups to measure similar goal domains led to vacillations in the classifications depicted in Figure 2. Lack of consistency may also explain why positive—rather than negative—correlations were found between content goals that should have been in opposition according to Schwartz's model. Please note that we are not criticizing the reviewed studies. In fact, we applaud the way that these researchers have measured various aspects of goal-directed behavior. We realize that it was never their intention to compare and contrast different content goals nor examine the patterns of alignment and conflict between these goals. We hope, however, that we have convinced the reader that—although past research on motivation has revealed interesting findings about the environmental cues that trigger goal-directed behavior—the interaction between the different content goals in the classroom has been understudied. Indeed, few of the reviewed studies dealt with multiple goals simultaneously, and most of the sampled studies concerned children below the age of 15. Clearly, more research is needed to provide valuable insights into the contextual factors that bring values and goals to the surface in the classroom, and into their patterns of alignment and conflict.

Some readers may consider our attempt to link the motivational aspects that were measured by various educational researchers to Schwartz's value types as a futile exercise, because we have no way of knowing whether the students in the respective classrooms would agree with our categorization. We accept this criticism, yet we hope that enough researchers will share our conclusion that there is a considerable gap in our knowledge about the interaction of different content goals and will be encouraged to set up new, well-designed studies to uncover the patterns of alignment and conflict that students have established between different content goals. In any case, researchers should construct new assessment instruments that can register which types of content goals are salient in different learning settings, why students are engaged in goal-directed behavior, and how multiple content goals interact to motivate their actions.

As mentioned previously, present attempts to measure multiple content goals are hindered by poor definitions and operationalizations of goal content. The extent of the problem was illustrated in a study conducted by Lemos (1996). She observed and videotaped classroom behavior and interviewed students and teachers about the content of students' goals. Students predominantly reported working goals (e.g., "I wanted to finish that job"), and evaluation goals (e.g., "I wanted to do well on that task"), whereas teachers, observing the same videotaped episode, thought their students were

mainly pursuing mastery goals (e.g., "She wants to comprehend lesson content") and compliance goals (e.g., "She wants to follow up on teacher's instruction"). Another obstacle is that students do not have easy access to their own higher order goals. Lemos (1999) found that students mentioned few entertainment and interpersonal goals when they reported about the goals they normally pursue in the context of the classroom. Hence, we urgently need specially designed instruments that can register goal salience in a specific context, setting, or course. More specifically, we need to ask the students themselves—for example, with the interview or stimulated recall method—what type of content goal(s) have motivated their actions and why. We also need to ask them whether or not these goals are congruent or incongruent in that setting and why (see, e.g., Hijzen et al., in press; Lemos, 1996). We think that Schwartz's value hierarchy is an excellent tool to describe the content and patterning of goals—including nonacademic goals—both within and across learning episodes. By the same token, the proposed goal framework can be used to design studies that look more closely at the motivating effect that various aspects of the new instructional landscape might have on students' thoughts, feelings, and actions. Such studies could reveal the driving forces behind students' goal-directed behavior in these new learning environments and provide new insights in our understanding of self-regulation in real-life contexts.

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