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GOAL COMPLEXES

Jeannine E. Turner, Banban Li, Yanyu Pan, Juhee Kim, and Yanyan Chen

Background
Hierarchical models suggest students’ traits induce motivations that shape their learning behaviors. While traits impact students’ motivation, they are more distant than imminent goals that students pursue in their learning. For example, MacIntyre et al. (1998) proposed students’ classroom behaviors are influenced by distal personality traits (e.g., extroversion or introversion) that influence their more proximal immediate motivations (e.g., wanting to communicate in a foreign language), while their self-confidence and willingness to communicate in a second language are closest to their use of the target language in the classroom. In this chapter, we focus on combinations of distal and proximal influences to explain students’ foreign language (FL) or second language (L2) motivation. These combinations have been described as goal complexes (Liem & Elliot, 2018).

Liem and Elliot (2018) described levels of sociocultural influences on students’ motivational characteristics and achievement goal adoption. Based on Bronfenbrenner’s (1979, 1994) model of sociocultural influences on child development, they consider sociocultural factors such as cultural values (macrosystem), educational systems (exosystem), and parents/teachers (microsystem) as indirect, yet progressively more direct, influences on students’ dispositions and motivations. Within the center of their model are students’ goal complexes (i.e., combinations of reasons and goals). They propose that students’ more distal achievement motives (e.g., dispositional traits) link to their specific proximal achievement goals. Together, distal motivations and proximal goals represent a goal complex. Within this framework, researchers investigate combinations of personal, distal reasons for pursuing achievement goals. As we describe below, goal complexes can involve many forms of motivational impact, with increasing complexity. We first describe the history of achievement goals, which is necessary to understand the theoretical connection between a reason (the “why” of behaviors) and the goal (the “what” to be accomplished), and then expand the discussion to incorporate goal complexes.

Achievement Goals
Goals define end-states that individuals pursue (Austin & Vancouver, 1996). Early research suggested students who have mastery goals focus on mastering skills, while students who have performance goals focus on demonstrating their abilities by performing better than others (Kaplan & Maehr, 2007). Research revealed that students who pursued mastery goals were adaptive; they sought challenging tasks, demonstrated persistence, used sophisticated strategies, and held affirmative attitudes towards
learning. However, having performance goals showed positive results for some students, while for others performance goals seemed to inhibit positive results (Bouffard et al., 1998). For example, some students excel when they compete for rewards, while others fall behind.

With further consideration, performance goals were partitioned into performance-approach and performance-avoidance goals (Harackiewicz et al., 1998), and mastery goals were partitioned into mastery-approach and mastery-avoidance goals (Elliot & McGregor, 2001). The 2 × 2 framework (mastery/performance and approach/avoidance) proposes that students focus on obtaining desirable outcomes (approach goals) or avoiding undesirable outcomes (avoidance goals). Students with performance-avoidance goals avoid demonstrating incompetence relative to others (e.g., avoid having lower scores than other students); students with mastery-avoidance goals avoid negative outcomes that would occur if they did not master the material (e.g., if they do not master engineering classes they might design a faulty bridge). More recently, researchers proposed 3 × 2 models (Elliot et al., 2011; Lee & Bong, 2019). These models maintained the approach/avoidance valence, but suggested three classifications of goal-striving: self-based mastery (increasing skills/not losing skills), outcome-based accomplishment (obtaining high scores/not obtaining low scores), and normative comparisons (performing better than others/not performing worse than others). Furthermore, research has shown students can have more than one achievement goal (Darnon, et al., 2010) or different levels of multiple goals (Wormington & Linnenbrink-Garcia, 2017). While research on achievement goals has provided information about students’ academic targets, understanding students’ reasons for pursuing achievement goals (i.e., goal complexes) provides explanations for students’ motivation and behaviors beyond achievement goals alone (Vansteenkiste et al., 2014).

Goal Complexes

Identifying students’ underlying reasons for their goals, such as feeling coerced to perform better than others or willingly choosing to perform better than others, can better explain students’ motivated behaviors because the “integration of achievement goals and their underlying reasons essentially become intertwined” (Elliot & Thrash, 2001, pp. 147–148). Students’ reasons provide the energy, while their goals provide the target. Goal complexes operate as one hierarchical construct, while more distal reasons provide energy that is funneled into a specific goal, and together they explain approach/avoidance behaviors. Liem and Elliot (2018) suggested that a specific reason might energize multiple goals, and multiple reasons might energize a specific goal. Below, we provide two theoretical frameworks that have investigated students’ reasons for pursuing achievement goals: dispositional achievement motives and motivational reasons of self-determination theory.

Achievement Motives

One theoretical approach that links students’ reasons and goals is achievement motives. Within this line of research, researchers propose that dispositional motives of hope for success or fear of failure are general traits that can powerfully influence achievement motivation. For example, Atkinson’s (1957) original achievement motivation theory posited that one’s tendency to anticipate pride for an accomplishment (hope for success), or tendency to anticipate shame upon failure (fear of failure), was the primary energy for approach or avoidance behaviors. Conroy (2017) explained that “pride and shame are central to achievement motives because they reflect common consequences of competence and incompetence” (p. 26). Students’ hope for success is associated with positive appraisals of competence and skills (Dinger et al., 2013), while fear of failure is associated with appraisals of low ability and low expectations for success (Elliot & Church, 2003).

Studies investigating relationships of students’ hope for success and fear of failure with their achievement goals have consistently found positive relationships between 1) hope for success and mastery-approach goals, 2) fear of failure and performance-avoidance goals, and 3) fear of fail-
ure and performance-approach goals (Dickhäuser et al., 2016; Dinger et al., 2013). Some studies found that hope for success and fear of failure predicted students’ performance-approach goals (Dickhäuser et al., 2016; Dinger et al., 2013). However, none of these studies included mastery-avoidance goals. Some studies that involved mastery-avoidance goals found that students’ fear of failure predicted both mastery-avoidance and performance-avoidance goals (Bjørnebekk et al., 2013; Elliot & Mayurama, 2008); however, Bipp and Van Dam (2014) found that students’ hope for success predicted mastery-avoidance goals.

Self-Determination Theory: Motivational Reasons

Another line of goal complex research links students’ reasons for undertaking a specific achievement goal using self-determination theory (SDT; Ryan & Deci, 2020). SDT suggests students’ motivational reasons range on a continuum through five levels, beginning with amotivation (aimless uncertainty) and ending with intrinsic reasons (activity itself is motivating). With amotivation, students lack direction and purpose. This is followed by extrinsic reasons whereby pressures from others instigate and/or maintain behaviors, for example if a student is not allowed to play with friends unless he/she completes his/her FL homework. With extrinsic reasons, students experience no autonomy; they only perform a task because they are coerced to do so (i.e., feel controlled). At the next level, introjected reasons, students conduct behaviors to please significant people, for example a student would feel guilty if he/she does not complete his/her FL homework before playing with friends. Most researchers consider introjected reasons to be an extrinsic pressure; although students have some agency, they may feel controlled by others’ demands. The next level is identified reasons whereby students conduct behaviors because of personal value, for example a student completes his/her FL homework before playing with friends because he/she wants to major in the FL in the future. This level offers autonomy because students choose to conduct tasks because of benefits. A stage that bridges identified reasons and intrinsic reasons is integrated reasons whereby students’ value of academic tasks is integrated into their identity, for example a student values learning an FL. The final level on the continuum occurs when doing the task provides interest and enjoyment, for example a student enjoys completing FL assignments. At this level, intrinsic reasons involve the highest autonomy.

By using a goal complex approach, researchers have typically investigated SDT reasons for having a performance-approach goal (e.g., they feel coerced or they perceive value in performing better than others). This research explores how different goal complexes (e.g., feeling coerced to perform better than others to avoid punishment, enjoying competitive situations) relate to other academic variables. Researchers typically combine extrinsic and introjected reasons to form controlled reasons (high feelings of being controlled) and combine identified and intrinsic reasons to form autonomous reasons (high volitional engagement; e.g., Senko & Tropiano, 2016).

Research Evidence

Research using quantitative and qualitative methods is beginning to explore students’ hierarchical reasons for achievement goals within FL/L2 contexts. In quantitative investigations, researchers typically use structural equation modeling (SEM) to explore hierarchical relationships. We first provide information regarding research that investigated relationships of students’ achievement motives and achievement goals, and then research that investigated SDT’s motivational reasons for learning an FL and achievement goals. Subsequently, we discuss research that investigated students’ multiple reasons and multiple goals, offering insight into the complexity of FL/L2 learning motivation.
With respect to exploring relationships among FL students’ achievement motives (i.e., distal influence), achievement goals (i.e., proximal motivation), and classroom-related variables and outcomes, Turner et al. (2021) used path analysis to explore whether or not Chinese college English-majors’ hope for success and fear of failure predicted their achievement goals and subsequent ratings of FL speaking self-efficacy, willingness to communicate, and self-reported frequency of classroom talk. Surveys regarding students’ achievement motives and achievement goals were given to students during the first two weeks of the semester, while their FL speaking self-efficacy (Torres & Turner, 2016), willingness to communicate (Peng & Woodrow, 2010), and speaking frequency were assessed mid-semester. Results confirmed the hierarchical model. Students’ hope for success positively predicted mastery- and performance-approach goals, while fear of failure positively predicted mastery- and performance-avoidance goals. Additionally, their data-driven model suggested that Chinese students’ hope for success had an inverse relationship with performance-avoidance goals. This relationship is reasonable because, when students have high expectations of success, they anticipate doing well. Indeed, they may want performance information that can tell them if they are succeeding with mastering content. Thus, if they have high hope for success, they do not avoid performances. They also found that students’ mastery-approach goals had a direct positive relationship with their willingness to communicate, but not with their speaking self-efficacy. This finding was counter to previous research conducted in Western cultures. Instead, Chinese students’ performance-approach goals positively predicted speaking self-efficacy, while performance-avoidance goals negatively predicted speaking self-efficacy. Thus, FL speaking self-efficacy was related to performance-approach goals but not related to mastery-approach goals. They suggested 1) the relationships among Chinese students’ hope for success, mastery-approach goals, and willingness to communicate may represent approach motivations and adaptability to the challenges of speaking an FL, while 2) the relationships among hope for success, performance-approach goals, and speaking self-efficacy may indicate that students’ self-comparisons with others’ speaking performances provide them with information about their own relative abilities. If students determine their performance is as good as or better than that of others, this information contributes to their self-efficacy judgments and supports their willingness to communicate. Thus, while achievement motives guide goal choices, the relationships with students’ mastery- and performance-approach goals may serve different functions for self-efficacy judgments and engagement that have not been found in prior research conducted within Western cultures. This research not only demonstrated the hierarchical relationships of students’ achievement motives, achievement goals, and classroom engagement, but the findings also suggested that these relationships may be influenced by the broader sociocultural contexts, as Liem and Elliot (2018) proposed.

Taking a mixed-methods approach, Chen and Turner (2021) explored Chinese undergraduate English majors’ processes for choosing English as their major. To begin, they collected students’ ratings regarding the SDT continuum (amotivation, extrinsic, introjected, identified, and intrinsic) for why they were majoring in English. From a total of 99 initial responses, they chose to interview 18 students who scored high on a specific dimension. Grounded theory analysis of interview data showed the most important motivational reasons students mentioned for choosing English as their college major were 1) perceived ability in learning English, 2) interest in learning English and/or English cultures, and 3) influential people in their lives (family/teachers). Similar to studies that showed levels of autonomy influence behaviors, students’ reasons for choosing English as their major were related to their subsequent adaptation to the college setting and the types of future goals they sought. Students were less adaptive when they felt external pressure from others (low autonomy). On the other hand, students who had autonomous reasons for choosing English as their major (i.e., interest in English language and cultures) adapted to college demands and used more self-regulation strategies (e.g., time management) and deeper learning strategies (e.g., making connections between new and prior knowledge). Furthermore, students with high autonomy were clear about their future goals and they chose more difficult goals (e.g., wanting to be an interpreter...
for an international business), while students with low autonomy lacked clarity about their future goals, with many “settling” on teaching English in K-12 settings. Their findings are particularly interesting because they found some students chose to follow influential people’s advice, while others felt compelled to follow influential people’s advice. These findings may reflect the role of parents within the Chinese culture. Once again, the full hierarchical nature of the social-cultural context and students’ reasons, goals, and classroom engagement was supported.

When using SDT variables to predict specific achievement goals, researchers typically distinguish between students’ autonomous and controlled reasons for pursuing a specific achievement goal (Michou et al., 2014; Vansteenkiste et al., 2014). For example, students could choose to pursue higher scores than classmates (performance-approach goal) because 1) doing better than others is a course demand (extrinsic), 2) parents will be dissatisfied if they performed lower than peers (introjected), 3) doing better than others is valued because it suggests mastery (identified), or 4) they enjoy striving to perform better than others (intrinsic). Thus, students’ underlying reasons for a specific goal reveal the meaning the goal has for them.

Li et al. (2021) examined relationships among 283 Chinese EFL students having performance-approach goals due to underlying autonomous or controlled reasons and their FL self-efficacy and anxiety. They used students’ scores on the standardized college entrance English exam (Gaokao English scores) as an initial English-competence variable. By conducting a series of moderation analyses and SEM, they found that students’ initial Gaokao English scores positively predicted their FL self-efficacy, with performance-approach goals (performing better than others) as a moderator between autonomous or controlled motivational reasons and outcome variables. Students with initially high FL competence were more likely to endorse performance-approach goals, and higher performance-approach goals were positively related to their current FL self-efficacy. However, this relationship only occurred when students’ underlying reasons for wanting to perform better than others were autonomous (doing better than others was important or they enjoyed competition).

When students pursued performance-approach goals for controlled reasons (external pressures), their FL self-efficacy was not supported. Furthermore, students with initially lower competence (Gaokao English scores) had lower levels of performance-approach goals, and they experienced both high FL anxiety and low FL self-efficacy. This research demonstrated that students’ initial competence may hierarchically impact both students’ reasons and goals, which may subsequently impact their affective experiences.

As mentioned earlier, researchers have demonstrated that students may have multiple achievement goals (Papi & Teimouri, 2014) or multiple motivational reasons (Lee & Bong, 2016). For example, Harackiewicz et al. (1998) showed that having both mastery and performance goals is highly beneficial for college students. With both goals, students want to master the material, and high performances provide verification that they are doing so. By using cluster analysis or profile analysis to identify groups of students, according to their responses on several motivation variables, research demonstrates that each student’s motives and goals may be multifaceted. Below, we provide studies that investigated FL students’ multiple achievement goals or multiple SDT reasons. These approaches demonstrate the complexities of students’ motivation to learn another language.

In the EFL context of China, Turner et al. (2018) investigated 270 college English learners’ multiple achievement goals through cluster analysis. First, they identified four groups based on students’ ratings of achievement goals. These groups were labeled: typical (moderate on all achievement goals, 34% of students), moderate mastery (moderate mastery-approach goals; moderately low on other goals; 23% of students), ideal (high mastery/performance-approach goals; 24% of students), and goal conflict (high levels on all goals; 19% of students). The motivational groups demonstrated significant between-group differences regarding affective experiences (FL self-efficacy/anxiety), approaches to studying, and self-regulation. A follow-up analysis revealed that students in the typical and moderate mastery groups tended to be similar to each other and different from ideal and goal conflict groups, who tended to be similar. However, ideal students, who had high ratings for
approach goals (mastery/performance), showed more adaptive behaviors (e.g., use of higher-order study strategies). Furthermore, goal conflict students (who were high on approach and avoidance goals) experienced the highest FL anxiety, but had the highest self-regulation, while ideal students had the highest FL self-efficacy. This study demonstrated that FL learners may have multiple goals for learning a foreign language, and groups of goals are related to different approaches to studying, self-regulation, and affective experiences. However, the study did not explore students’ reasons for their multiple goals.

Using self-determination theory, Kim and Turner (2021) used a cluster analysis to identify five groups of 299 Chinese English majors regarding their motivational reasons for choosing English as their major. They identified five motivational-reason groups: typical (high extrinsic, identified, and intrinsic reasons; 27% of students); ambiguous (moderate-to-low on all reasons; 24% of students), instrumental (high identified, moderate extrinsic, low introjected and intrinsic reasons; 18% of students), complex (very high on all reasons; 16% of students), and autonomous (very high identified and intrinsic reasons; 15% of students). Differences between groups were examined for their achievement goals, FL anxiety, and self-efficacy. They found no statistical between-group differences regarding mastery-approach goals, nor with performance-avoidance goals, perhaps because all students were majoring in English. However, students in the typical, complex, and autonomous groups (higher autonomous reasons) provided significantly higher ratings for performance-approach goals than the other groups who had lower autonomous reasons. Additionally, students in the typical group (high extrinsic, identified, and intrinsic reasons) provided higher ratings for mastery-avoidance goals than those in the ambiguous and instrumental groups who also had lower controlled reasons. Interestingly, students in the complex group (high on all reasons) had the highest FL anxiety, while students in the typical and autonomous groups had the highest FL self-efficacy. This study demonstrated that learners may have multiple reasons for learning a foreign language, and groups of reasons are related to different achievement goals and affective experiences.

Finally, Turner and Kim (2021) extended Turner et al.’s (2018) cluster analysis of students’ multiple achievement goals by using achievement motives and SDT’s multiple reasons to predict students’ placement within the achievement goal groups identified by Turner et al. (2018). They investigated the predictive power of 1) achievement motives (hope for success, fear of failure), 2) SDT motivational reasons (amotivation, extrinsic, introjected, identified, and intrinsic), and 3) pride or shame for performing higher/lower than others. They conducted a series of logistic regressions to determine the extent to which these different influences predicted group membership. Inclusion into the typical group (moderate all goals) was best predicted by low hope for success, high amotivation, high extrinsic reasons, and low intrinsic reasons. With high ratings of amotivation (aimless, uncertainty) and moderate levels of all goals, these students seemed to be uncertain regarding their reasons and goals for learning English beyond feeling coerced to obtain high grades. Interestingly, this group contained the largest number of students, and may reflect they were taking the course because it was required for their college degree. Inclusion into the moderate mastery group (moderate mastery-approach goals, low on other goals) was best predicted by low pride and low shame for performance comparisons, and low levels of fear of failure, amotivation, and intrinsic reasons. Although these students seemed to reject normative comparisons, similar to students in the typical group, their reasons for learning English were unclear. However, in their case, they were not aimless as were students in the typical group. Inclusion into the ideal group (high mastery/performance-approach goals) was best predicted by low levels of amotivation and extrinsic reasons, and high levels of intrinsic reasons. These students enjoyed learning English but, interestingly, did not indicate instrumental reasons (i.e., identified reasons) for learning English (e.g., future jobs/graduate-level studies). Finally, inclusion into the goal conflict group was best predicted by pride in performing better than others, and high levels of amotivation, fear of failure, extrinsic reasons, and important others (introjected reasons). Students in the goal conflict group seemed most motivated by external forces and were the only students who indicated high levels of parental pressures (intro-
jected regulations) for learning English. Students seemed to be driven by fear and extrinsic pressures as well as performance comparisons (pride in doing better than others). They may have felt pressured by significant others to both learn English and perform better than others. This research demonstrated that students may have multiple reasons for their multiple FL achievement goals. Together, students’ reasons and goals provided more detailed information about their motivational energy and affective experiences.

**Data Elicitation**

Because goal complexes focus on the achievement goals that students pursue, we provide information regarding surveys that have been used for this purpose in FL research. Then, we provide information about surveys that were used to investigate FL students’ achievement motives. Finally, we provide information regarding surveys that have been used to assess SDT motivational reasons.

In the FL/L2 context, studies have used different surveys to investigate achievement goals. Lee and Bong (2019) provided a recent summary of achievement goal surveys that may interest readers. Here, we provide information about surveys used in goal complex research. To assess students’ achievement goals, Turner et al. (2021) used an adapted version of Elliot and Murayama’s (2008) 12-item Achievement Goal Questionnaire-Revised, modified to fit the FL context and translated into Mandarin. This survey assessed four dimensions: mastery-approach goals (e.g., *My goal is to learn as much as possible in my English classes*), mastery-avoidance goals (e.g., *I am afraid I won’t learn everything I need to learn in my English classes*), performance-approach goals (e.g., *I strive to do well compared to other students in my English class*), and performance-avoidance goals (e.g., *My goal is to avoid performing worse than other students in this class*). Students assessed the extent to which each item was true for them (1 = not at all true of me, 6 = very true of me). In Turner et al.’s (2021) study, the subscales demonstrated good internal reliability (mastery-approach goals, $\omega = 0.82$; mastery-avoidance goals, $\omega = 0.71$; performance-approach goals, $\omega = 0.82$; and performance-avoidance goals, $\omega = 0.86$).

To assess achievement motives, Turner et al. (2021) used Lang and Fries’ (2006) achievement motives scale, translated into Mandarin. This survey includes ten items and assesses two dimensions, using a 6-point scale (1 = not at all true of me, 6 = very true of me): hope for success (e.g., *I am attracted by tasks in which I can test my abilities*) and fear of failure (e.g., *I am afraid of failing in somewhat difficult situations when a lot depends on me*). Lang and Fries’ items were taken from Gjesme and Nygård’s original (1970) 30-item survey. When trying to use the original scale, Lang and Fries found the original factor structure of the 30-item survey did not fit their large dataset well. Using stepwise procedures and modification indices, their post-hoc analysis revealed ten items that demonstrated a good fit with the data. The ten items were cross-validated with new data and demonstrated a good fit. Turner et al. (2021) found the two subscales demonstrated good internal reliability with their Chinese sample (hope for success, $\omega = 0.83$; fear of failure, $\omega = 0.80$).

With respect to self-determination theory, two types of research studies have investigated students’ reasons for FL goals. The first investigated students’ general reasons for studying a foreign language, while the other investigated students’ specific reasons for pursuing performance-approach goals. Chen and Turner (2021) assessed students’ general motivational reasons for choosing English as their major, adapting the motivational regulation survey (Standage et al., 2006) to fit the FL context (translated into Mandarin). This survey included 20 items, regarding five SDT dimensions, assessed on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree): amotivation (e.g., *I learn English but I don’t really know why*), extrinsic reasons (e.g., *I learn English because I will get into trouble if I do not*), introjected reasons (e.g., *I learn English because I want the teacher to think I’m a good student*), identified reasons (e.g., *I learn English because it is important for me to do well in English*), and intrinsic reasons (e.g., *I learn English because using English is fun*). They found the five subscales demonstrated good internal reliability (amotivation, $\alpha = 0.89$; external, $\alpha = 0.81$; introjected, $\alpha = 0.68$; identified, $\alpha = 0.85$; and intrinsic, $\alpha = 0.89$).
When Kim and Turner (2021) chose items for their cluster analysis regarding Chinese students’ general motivational reasons for choosing English as their major, they purposely selected items to highlight the roles of students pursuing grades (extrinsic), pressure from others (introjected), the instrumentality of learning English (identified), and enjoyment (intrinsic). They selected items from two surveys: the revised motivational regulation survey (Chen & Turner’s modifications, described above) and the L2 motivational self system questionnaire (Taguchi et al., 2009). They evaluated items from both surveys and selected items that fit the characteristics of each SDT motivational reason (all items used a Likert scale; 1 = not at all important, 6 = very important). To assess extrinsic reasons, they used four items from Taguchi et al. (2009) (e.g., I do not want to get bad marks in English). To assess introjected reasons, they selected two items from each survey that focused on the influence of important others (e.g., Others expect me to learn English, Chen & Turner, 2021; The people I respect think that I should learn English, Taguchi et al., 2009). To assess identified reasons, they used four items from Taguchi et al. (2009) that focused on valuing learning English for instrumental reasons (e.g., I think English will be useful in getting a good job). To assess intrinsic reasons, they used four items from Chen and Turner (2021) that represented students’ enjoyment/interest (e.g., I enjoy learning all English skills—listening, speaking, reading, and writing). They found the four subscales demonstrated good internal reliability (extrinsic, α = 0.85; introjected, α = 0.83; identified, α = 0.82; and intrinsic, α = 0.85).

In their logistic regressions for predicting students into motivational goal groups, Turner and Kim (2021) also used these items and subscales to predict students’ reasons for multiple achievement goals. To assess FL students’ autonomous and controlled reasons for having performance-approach goals, Li et al. (2021) followed the procedures of Senko and Tropiano (2016). They provided students with the performance goal, “I am striving to do well compared to others in this class”, and instructed participants to evaluate the statement: “Assume you agreed, even if only a little with this statement, what reason(s) motivate you to pursue this goal in your class?” (1 = not at all for this reason, 6 = totally for this reason). The controlled subscale included two extrinsic reasons (e.g., Doing better than others will bring rewards from teachers or parents), two introjected reasons (e.g., If I don’t do better than others, I will feel guilty), and two normative shame items (e.g., I will feel shame if I don’t do better than others). The autonomous subscale included two identified reasons (e.g., Doing better than others is important for my career development), two intrinsic reasons (e.g., Doing better than others is fun), and two normative pride items (e.g., Doing better than others will make me feel proud). They found the two subscales, translated into Mandarin, demonstrated good internal reliability (autonomous, α = 0.91; controlled, α = 0.91).

**Practical Applications**

Goal complexes suggest that instructors should focus on supporting students’ motivation by providing relevance, an emphasis on mastery goals, and using performances to provide evidence of mastery. We present two holistic approaches that emphasize relevance with an emphasis on mastery goal classroom structures that promote positive engagement and outcomes. Considering instructional supports for students’ motivation, Keller’s (2010, 2017; Li & Keller, 2018) ARCS model proposed that teachers can facilitate students’ learning motivation through instructional practices that 1) focus students’ attention on a learning task, 2) provide information/tasks that are relevant to students’ needs, 3) support students’ confidence in their ability to be successful, and 4) support students’ learning in ways they experience satisfaction with tasks/outcomes. For example, teachers can 1) provide intriguing questions as well as modify strategies and tasks to introduce novelty for initiating and maintaining students’ attention, 2) articulate the relevance of course information and provide activities that are relevant to students’ goals, 3) support students’ confidence through scaffolding, and 4) enhance satisfaction by providing meaningful opportunities for students to use their new skills and knowledge. Keller further suggested that teachers should periodically evaluate whether or not their motivational elements work as intended.
Pulling from extensive research, Belland et al. (2013) provided instructional strategies to promote students’ motivation and cognition through scaffolds that align with authentic tasks. Because authentic tasks are often relevant, yet ill-structured, they suggested that scaffolding can both reduce students’ frustration and support their motivation and learning. They encouraged teachers to provide messages that establish 1) task value and relevance, while promoting 2) mastery goals, 3) a sense of belonging, 4) emotion regulation, 5) expectancy for success, and 6) autonomy. They suggested that teachers could help students choose authentic tasks that engage their personal interests and provide relevance. Then, teachers can have students create short-term goals that emphasize the development of competence, while they provide formative feedback. Furthermore, they suggested that teachers promote cooperation, not competition, and they should explain that failures are part of learning. Finally, they suggested that teachers embed students’ self-evaluation of their own strategy-use to promote students’ meta-awareness of their own learning processes.

With respect to FL contexts that support a goal complex approach, we believe teachers should design tasks that support students’ reasons for learning, along with supporting their interests and values. Teachers can also provide scaffolds and formative feedback to improve students’ FL listening, reading, speaking, and writing competence. With messages that mistakes are expected and accepted, students may begin to understand that feedback is a resource they should seek instead of fear. Teachers can also scaffold students’ motivation, emotions, and cognitions by offering low-stakes opportunities, such as asking simple questions with simple answers, or allowing students to speak with peers before speaking to the whole class. These opportunities can provide emotional, cognitive, and motivational scaffolds that lead to performing complex tasks (Xing & Turner, 2020). Finally, teachers can have students keep a reflective journal to monitor their progress, help them see their own development and mastery, and promote their self-efficacy to become mastery-oriented.

Future Directions

The goal complex approach holds promise for researchers as it not only addresses the what students are trying to accomplish but also the why of students’ focus. We have specifically concentrated on exploring students’ reasons and goals for learning a second language through the lens of two theoretical frameworks: achievement motives and self-determination theory. Although we acknowledge students may have other reasons for learning a language, as well as other L2 goals (e.g., see Papi & Hiver, this volume), our focus is on the importance of knowing both components together (reasons for goals) to fully understand students’ L2 motivation and engagement. We framed our approach on Liem and Elliot’s (2018) goal complex perspective that articulates multiple hierarchical levels of distal and proximal influences that impact students’ school-related goal complexes. They proposed that distal socio-contextual pressures include cultural values and national ideologies (macrosystem), educational systems and assessment practices (exosystem), and parents and teachers (microsystem). These more distal factors may initiate and/or maintain individual differences in students’ personal reasons and goals. Much empirical work remains to understand the complexity of students’ motivational goal complexes, and how these affect their beliefs, behaviors, and achievement. Below, we offer potential research across levels of Liem and Elliot’s (2018) model.

Cultural Differences (Macrosystem/Exosystem)

Several studies have demonstrated cultural backgrounds influence students’ achievement goals (e.g., King et al., 2012; King et al., 2017), but less is known about how cultural backgrounds influence L2 students’ goal complexes. For example, Iyengar and Lepper (1999) revealed that Anglo students had higher intrinsic motivation when they made choices for themselves, whereas Asian students were intrinsically motivated when important others (teachers/parents) made a choice for them. They claimed that the concept of personal autonomy might not seem as important to students
in Eastern cultures due to their high emphasis on conformity to social values. Xing (2019) suggested that, unlike Western students who tend to perceive that satisfying others’ expectations feels controlling, Eastern students might feel autonomous when choosing to fulfill an important other’s wishes. These ideas stimulate the question: How do students in various cultures perceive the roles of parents, teachers, and trusted peers in relation to their own motivation for pursuing FL studies and choosing future careers? Our own research with Chinese students’ learning English suggests culture pervades all levels of students’ motivation, from macrosystems to microsystems. Research is needed to identify individual differences regarding students’ perceptions of culturally specific academic “press” (i.e., values, standards, and demands for academic achievement) and the extent to which their perceptions support approach goals, avoidance goals, or both, and how these cultural influences impact their L2 motivations and achievements.

**Classroom Goal Structures (Microsystem)**

Within Liem and Elliot’s (2018) model, teachers are more proximal to students than other system levels; thus, researchers suggest that teachers’ classroom goal structures can induce students’ specific achievement goals (e.g., Urdan & Schönfelder, 2006). For example, environments in which progress is valued tend to elicit students’ mastery-approach goals, whereas environments that emphasize outperforming peers or demonstrating competence tend to elicit students’ performance goals (Lüftenegger et al., 2014). Thus, within FL contexts, students’ perceptions of classroom goal structures could play a role in initiating or supporting their reasons for engagement and their achievement goals. Similarly, teachers’ classroom assessment practices also play a role in L2 learners’ motivation (Gan et al., 2019). Classroom goal structures and assessment practices are interlinked, and teachers establish both (Roehrig et al., 2012). Future research can examine L2 learners’ goal complexes with respect to classroom goal structures.

**Students’ Reasons for FL/L2 Achievement Goals**

Because performance-approach goals have shown much variability with students’ learning processes and outcomes, goal complex research has investigated students’ reasons for this specific goal (Vansteenkiste et al., 2010, 2014). Li et al.’s (2021) study is the only recent research that used goal complexes to investigate FL students’ reasons for performance-approach goals and effects on their FL self-efficacy and anxiety. Future research could explore reasons for language learners’ other achievement goals. For example, Sideridis (2008) found college students who had high ratings for mastery-avoidance goals demonstrated elevated ratings for cognitive anxiety, negative affect, and fear of failure. However, Senko and Freund (2015) suggested mastery-avoidance goals are not necessarily detrimental. Madjar et al.’s (2011) research with Israeli students found that students may pursue both mastery-approach and mastery-avoidance goals, and that “mastery-avoidance goals enhanced students’ reports of adaptive affect in school” (p. 268). Using a goal complex approach could disentangle these results; for example, language learners may have mastery-avoidance goals if they want to maintain high skills to pursue challenging future career goals. Would they then have adaptive learning behaviors or would mastery-avoidance goals lead to anxiety and maladaptive behaviors? Because less is known about students’ mastery-avoidance goals, goal complex research could reveal relationships of students’ reasons for pursuing mastery-avoidance goals, and how their reasons and goals work together to impact their achievement behaviors and outcomes.

In addition to mastery/performance approach/avoidance goals, future research could investigate students’ goal complexes using the 3 × 2 approach (task outcomes, self-mastery, and normative comparisons). Gillet et al. (2015) used this approach to study introductory psychology students and found each achievement goal could be pursued for diverse autonomous and controlled reasons. They were able to explain additional variances in outcomes (satisfaction, engagement, posi-
tive affect) when they considered students’ reasons for pursuing achievement goals, beyond using achievement goals alone. However, their participants were not engaged in tasks that included public performances, which often occur in FL contexts. Because learning a foreign language involves complex skills, such as having to simultaneously listen and comprehend an instructors’ FL speech while trying to learn the new language, exploring students’ reasons for goals using the 3 × 2 achievement goal model could provide important nuances regarding students’ motivation, engagement, and outcomes.

**Other Individual Reasons for Achievement Goals**

Other theories that describe enduring tendencies (disposition/traits) could be integrated into research on students’ goal complexes. For example, Barabadi and Khajavy (2020) investigated relationships between students’ trait perfectionism and FL achievement as well as mediational roles of emotions and achievement goals. Additionally, Papi and Khajavy (2021) investigated a hierarchical model that begins with regulatory style (promotion/prevention) and integrated learners’ motivation for satisfying their own goals (ideal/own) or others’ goals (ideal/ought), and the extent to which these linked to students’ emotions of enjoyment and anxiety, use of eager L2 or vigilant L2 learning behaviors, and ultimate FL achievement. Furthermore, shame-proneness and guilt-proneness have been identified as enduring traits that can affect language learners’ motivation and engagement. For example, Teimouri (2018) demonstrated that a tendency to experience shame or guilt is pervasive in L2 contexts and that shame-proneness can have negative impacts on L2 learners’ motivations and achievements. More empirical work is needed to better understand the extent to which different types of distal influences instigate students’ goal complexes.

**Conclusion**

The reasons why language learners pursue achievement goals have not been fully explored. Lee and Bong’s (2016) interviews with Korean middle-school students, and Urdan and Mestas’ (2006) interviews with US high-school students highlighted the complicated reasons students provide regarding their investment in academic pursuits. We believe that research is needed to better understand learners’ multiple reasons for pursuing new languages, and the incremental power of those reasons on students’ achievement goals and achievement behaviors. Using a goal complex approach, researchers can investigate various combinations of students’ reasons and goals that could reveal unique and dynamic patterns that impact students’ ongoing motivation, affective experiences, and engagement. Supporting a dynamical systems perspective (e.g., Hiver & Papi, 2019; Op ’t Eynede & Turner, 2006; Papi & Hiver, 2020; Turner & Waugh, 2007), future research should simultaneously explore multiple layers of influences on students’ goal-striving and learning-related behaviors. Only then can researchers provide teachers with specific strategies to support students’ motivation, positive emotions, full engagement, and ultimate accomplishments in the difficult endeavor of learning additional languages.

**References**


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