**Perceived Career Congruence between Adolescents and their Parents as a moderator between
Goal Orientation and Career Aspirations**

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Abstract

We surveyed 601 Indonesian high school students (57.6% girls, mean age = 16.4 years) and investigated whether perceived career congruence between adolescents and their parents served as moderator between goal orientation (i.e., mastery-approach, performance-approach, and performance-avoid) and career aspirations. Hierarchical regression analyses showed that perceived congruence moderated the effects of mastery-approach and performance-approach, but not performance-avoid, on career aspirations. Mastery-approach orientation was more strongly related to career aspirations when perceived congruence was higher; whereas, performance-approach orientation was more weakly related when perceived congruence was higher. These findings highlight important roles for approach orientations and perceived career congruence between adolescents and their parents in career aspirations of adolescents in collectivist contexts.

Keywords: Goal orientation; Mastery-approach; Performance-approach; Performance-avoid; Perceived congruence; Career aspirations; Collectivist cultures

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Career aspirations are an individual's expressed choices or goals in the vocational domain (Rojewski, 2005). Setting career goals is important to the development of vocational identity (Erikson, 1968), and is a crucial part of career preparation, as these goals are the forerunners to adult career choices and life successes (Schoon & Parsons, 2002). Having a clearer understanding of how adolescents strive to meet these goals will contribute to the adolescent career development literature, and assist those who help adolescents manage their goal striving strategies. We examined goal orientation as an important antecedent to adolescent career aspirations, and assessed whether perceived congruence with parents regarding career matters moderated this relationship. We tested our hypotheses using a sample of Indonesian high school students. Indonesia is ranked highly on aspects of collectivism, and perceived congruence with parents is especially salient for young people from this country, as they rely heavily on parents and respect obedience (Hofstede & Hofstede, 2005).

Goal Orientation and Career Aspirations

An important dimension of career aspirations, which we focus on in this study, is "the level to which individuals aspire within a given occupation" (O'Brien, 1996, p. 264). This reflects aspirations to being promoted when in work, taking on leadership roles, and continuing with education to further one's career. Goal orientation is an important standpoint from which to understand these aspirations, as it reflects how individuals approach achievement situations (Dweck & Leggett, 1988; Elliot & McGregor, 2001; Elliot, 2005). Two main types of goal orientation have been identified: mastery-approach and performance-approach (Elliot, 2005). First, mastery-approach individuals focus on developing and improving their skills, they persist with tasks, and gain enjoyment from the challenge. As they hold an incremental theory of ability (i.e., ability can be developed), they focus on

developing their competencies. Thus, a mastery-approach orientation encourages individuals to set and work towards goals that are personally valued and challenging.

Second, performance-approach is considered to be of two types: performance-approach and performance-avoid. Performance-approach individuals hold an entity theory of ability (i.e., ability is difficult to develop), and thus strive to demonstrate their capacity to attain favourable judgments. A performance-approach orientation will lead individuals to set higher goals, especially where success is likely, as this can elicit positive feedback from others. Finally, performance-avoid individuals, who also hold a fixed view of ability, try to avoid being seen as incompetent by setting lower goals, which reduces the risk of negative outcomes and feedback. Some authors consider there are two components to mastery-approach (i.e., mastery-approach and mastery-avoid; Elliot & McGregor, 2001). However, while there is meta-analytic support for a 3-component model (Payne, Youngcourt, & Beaubien, 2007), which we used, there is less support for examining four orientations (Cellar et al., 2011).

In the career area, studies in both individualist (i.e., Western) and collectivist contexts (e.g., Indonesia, the Philippines) show that mastery-approach is associated positively with career-related variables such as exploration, self-efficacy, decision-making, job-seeking intensity, commitment, and aspirations (Creed, Fallon et al., 2009; Creed, King et al., 2009; Garcia, Restubog, Toledano, Tolentino, & Rafferty, 2012), and studies in individualist contexts reveal positive or null associations between performance-approach and career outcomes of exploration, aspirations, and self-efficacy (e.g., Creed, Fallon et al., 2009). In collectivist countries, both mastery-approach and performance-approach predict positive outcomes in the academic domain, such as better grades and performance on exams (Ho & Hau, 2008; Lee et al., 2003). Mastery-approach and performance-approach are adaptive in collectivist cultures due to the close relationship between achievement and social comparison, and the fact that achievement motivation in these cultures is socially rather than individually oriented (Bernardo, 2008). In addition to understanding what they learn, collectivists are

taught to create a social reality that makes their performance outcomes noticeable to their collective (Urdan, 2004). While individualists endorse performance-approach goals for the sake of personal pride, collectivists adopt these goals to bring honour to their in-group (e.g., making one's parents proud and satisfied; Urdan). However, the correlates of performance-approach in a collectivist situation have not been documented in the career domain, and the conditions under which mastery-approach and performance-approach orientations will be more useful for collectivist adolescents to progress in a career also warrants further investigation.

In individualist contexts, performance-avoid orientation has a null relationship with several outcomes such as job-seeking intensity and self-regulation strategies (Creed, Fallon et al., 2009; Creed, King et al., 2009), and has negative associations with self-efficacy and aspirations (e.g., Creed et al., 2011). In contrast, performance-avoid in collectivist contexts has not been explored in the career domain. In other areas, the absence of negative outcomes for performance-avoid in collectivists was attributed to the fact that avoidant goals matched with the collectivist emphasis of fitting-in with others (i.e., avoiding negative outcomes such as failure, family shame, and losing face, which might lead to group disharmony; Heine & Buthcel, 2009). Sideridis (2008), for example, found that, out of duty to their parents or teachers, collectivist adolescents were likely to feel obligated to do well or not to fail, with the former related to more adaptive outcomes than the latter. Therefore, the correlates of performance-avoid by collectivists in the career domain need further investigation.

Person and Contextual Factors from a Social Cognitive Career Theory Perspective

Schoon and Parsons (2002) contended that both individual factors and the constraints of the environment need to be considered to understand the development of career aspirations, and previous studies have demonstrated that person and context do have an influence on adolescent career development (e.g., Garcia et al., 2012; Sawitri, Creed, & Zimmer-Gembeck, 2014). The interaction between these two domains can be viewed from a social cognitive career theory (SCCT) perspective

(Lent, Brown, & Hackett, 1994). SCCT seeks to explain the developmental processes of interests, choice, and performance outcomes in the career and education domains. The theory highlights several specific person mechanisms that operate as co-determinants of behaviour, which are particularly relevant to career development. It also identifies contextual influences, such as cultural variables, in the implementation of career action behaviours. Contextual variables shape the learning experiences that promote personal interests and choices, and reflect the real and perceived opportunity structure within which plans are developed and implemented. This means that contextual supports and barriers are expected to moderate the relationship between person factors and outcomes. For example, the relationship between goal orientation and career aspirations is expected to be stronger in the presence of favourable versus restrictive environmental conditions (Lent, 2005).

For collectivists, parent-related contextual variables are critical factors that restrict or empower the individual (Sawitri et al., 2014). Additionally, culturally shared meanings and values guide how individuals approach achievement situations when meeting culturally valued outcomes (Erez, 2008). Collectivist cultures more highly respect conformity and reliance on authority figures such as parents, and meeting these values are related to subjective well-being (Hostede & Hofstede, 2005). However, few studies have examined the role of parents in the relationship between individual factors (e.g., goal orientation) and career outcomes (e.g., aspirations) based on the SCCT framework. One exception is Garcia et al. (2012), who found that the relationship between mastery-approach and self-efficacy in Filipino students differed depending on whether adolescent or parent ratings of support were considered, suggesting that adolescents and parents have different perceptions of parental support and these differences have implications for career decision-making.

We expected a moderating role for parental influences, because goal orientation is a person factor and perceived congruence with parents is an important contextual factor that affects how individuals in a collectivist setting set their goals. We operationalized parental influences as perceived congruence with parents on career matters (which, for simplicity, we will refer to as

perceived congruence with parents or just perceived congruence), which reflects adolescents' perceptions that they and their parents have similar and corresponding career interests, aspirations, and plans for the adolescent (Sawitri, Creed, & Zimmer-Gembeck, 2013). As mastery-approach and performance-approach are encouraged in collectivist contexts (Urdan, 2004), we expected that an approach orientation would be more strongly related to career aspirations in adolescents who already have a well-developed perception of congruence, and it is possible that the relationship between the avoidance orientation and career aspirations would not depend on adolescents' perceived congruence, or be weakened by it as agreement with parents would allow avoidant students to reduce personal risk by aiming lower. Mastery-approach and performance-approach oriented adolescents who have higher levels of perceived congruence might set higher career aspirations as these orientations are more responsive when support and interest is forthcoming, which is less the case for avoidant-oriented individuals (Régner, Loose, & Dumas, 2009). Approach-oriented adolescents who perceive that they have a high degree of congruence can draw on these personal resources to develop and progress higher career aspirations; whereas, avoidance-oriented adolescents do not utilize these resources, but fit in passively with parents, as this leads them to reduce the risk of negative outcomes by retaining their lower aspirations (Elliot, 2005). Thus, we tested perceived congruence as a moderator between goal orientation and career aspirations.

Current Study

Several studies in collectivist contexts have underlined the positive roles of mastery-approach and performance-approach orientations in the academic area (Ho & Hau, 2008; Lee, Tinsley, & Bobko, 2003; Rao, Moely, & Sachs, 2000). However, the conditions under which these approach orientations are adaptive have not been investigated. Additionally, research on the role of goal orientation in the career domain in collectivist cultures is limited, and only involved the mastery-approach orientation (i.e., Garcia et al., 2012). Therefore, the roles of other goal orientations (i.e., performance-approach and performance-avoid) warrant further examination. Finally, the roles of

parental contextual variables on adolescent career progress in collectivist settings have been documented in previous studies (e.g., Garcia et al., 2012; Restubog, Florentino, & Garcia, 2010; Sawitri et al., 2014). Accordingly, we included a parental contextual variable as moderator in our study. Our study adds to the understanding of the role of an important environmental factor for adolescents (i.e., perceived congruence with parents) in the relationship between predispositions to do things in a particular way (i.e., goal orientation) and career aspirations. Based on studies in both collectivist and Western cultures (e.g., Creed, Fallon et al., 2009; Garcia et al., 2012) we expected mastery-approach and performance-approach orientations to be associated positively with career aspirations, and based on studies in Western cultures (Creed et al., 2011) we expected performance-avoid to be negatively associated with these aspirations. Finally, we expected perceived congruence to moderate the relationships between mastery-approach, performance-approach (i.e., strengthen the relationship), and performance-avoid (i.e., weaken the relationship) and career aspirations.

Method

Participants

Participants were 601 Grade 11 students (57.6% girls, M_{age} 16.4 years, SD .46) from two high schools in Central Java, Indonesia. On a self-report of most common grades, 14 students (2.3%) indicated “low achievement”, 268 (44.6%) “average”, 311 (51.7%) “above average”, and five (0.8%) indicated “well above average” (3 did not answer this question). Most (455; 75.7%) were majoring in the natural sciences with 146 (24.3%) in the social sciences. Five (.8%) reported that their financial situation was “much worse” than their peers, 38 (6.3%) “a little worse”, 388 (64.6%) “about the same”, 133 (22.1%) “a little better”, and 37 (6.2%) “much better”. A small proportion (14.1%) reported paid part-time work while studying. Students had been enrolled in their Grade 11-12 major for approximately three months, but were still able to explore other options with their parents.

Materials

All responses were made using a 6-point Likert-like scale (1= *strongly disagree* to 6 = *strongly agree*), with higher scores reflecting higher levels of each construct.

Perceived Adolescent-Parent Career Congruence. The 12-item Adolescent-Parent Career Congruence Scale (Sawitri et al., 2013) assesses perceptions that adolescents hold consistent career interests, preferences, and goals as their parents (e.g., “My parents want the same career for me as I want for myself”). Alpha has been reported as .87, and validity demonstrated by finding positive correlations with life satisfaction, parental support, and living-up-to parental expectations (Sawitri et al., 2013).

Career Aspirations. The 10-item Career Aspirations Scale (O'Brien, 1996) measures leadership aspirations, including being promoted and continuing with one's education to further the career (e.g., “I think I would like to pursue graduate training in my occupational area of interest”). Alpha of .74 has been reported (O'Brien, 1996), and evidence for validity shown by expected correlations with career planning and outcome expectations (Sawitri et al., 2014).

Goal Orientation. Three, 3-item Achievement Goal Questionnaire subscales (Elliot & McGregor, 2001) assessed mastery-approach (e.g., “I want to learn as much as possible from the class”), performance-approach (“It is important for me to do better than other students”), and performance-avoid orientations (“I just want to avoid doing poorly in the class”). Alphas have ranged from .83 to .92, and validity has been supported using factor analysis and finding predicted associations with need for achievement, competitiveness, and fear of failure (Elliot & McGregor, 2001).

Translation

We used Brislin's (1986) translation procedure to convert the measures into Indonesian: (a) two bilingual speakers translated the items into Bahasa; (b) two monolingual speakers assessed the translated version; (c) two bilingual speakers back-translated the items into English; (d) the back-

translation was compared with the original and inaccuracies were revised; and (e) three Indonesian high school students assessed final readability.

Procedure

Classroom teachers administered the questionnaires, and students who did not participate were given an equivalent activity. University, school, and education department approval was obtained. The students had parents' approval and signed their own consent forms (63 were unable to complete the survey, and 7 surveys were unusable, leaving 601 students). No reward was offered, and surveys were returned to the first researcher in a sealed envelope.

Analyses

Hierarchical regression analyses were used to determine whether perceived congruence with parents moderated between goal orientations and career aspirations. Goal orientation was included at Step 1, perceived congruence at Step 2, and the interaction terms (i.e., goal orientation x perceived congruence; Jose, 2013) at Step 3.

Results

First, we conducted a confirmatory factor analysis (CFA; AMOS, V22) to confirm that all items loaded onto their respective latent factor and that all scales (i.e., latent factors) were independent. The first model included the five scales of mastery-approach, performance-approach, performance-avoid, perceived congruence with parents, and career aspirations. With the removal of one career aspiration item, which had a weak factor loading, this CFA demonstrated good fit statistics, $\chi^2(376, N = 601) = 736.89, p < .001, \chi^2/df = 1.96, CFI = .95, GFI = .93, RMSEA = .04, SRMR = .06$ (Hair, Black, Babin, & Anderson, 2010), and all factor loadings were significant ($p < .001$; range .31 to .91). This model demonstrated a better fit, $\Delta\chi^2(7) = 896.72, p < .001$, than a CFA that included goal orientation as a single measure (rather than separated into the three different orientations), perceived congruence, and career aspirations, $\chi^2(383) = 1633.61, p < .001, \chi^2/df = 4.27, CFI = .84, GFI = .84, RMSEA = .07, SRMR = .08$. Bivariate and latent variable correlations are

presented in Table 1. Consistent with the goal orientation model, the two approach orientations (mastery-approach and performance-approach) were more strongly associated with perceived congruence and career aspirations than performance-avoid, the two approach orientations were more strongly correlated together than they were with performance-avoid, and performance-approach and performance-avoid were positively related (which is to be expected as the focus of the former is on demonstrating normative competence and the latter is on avoiding normative incompetence; Elliot, 2005).

Second, hierarchical regression analyses were used to assess the moderated effects. As age, gender, socio-economic status, school achievement, major, and work experience had trivial associations with perceived congruence and career aspirations ($r = -.10$ to $.12$), these were not included as covariates. The goal orientation scales were entered at Step 1 and accounted for 17.4% of the variance in career aspirations, $F(3, 597) = 41.94, p < .001$. Higher mastery-approach ($\beta = .27, p < .001$) and performance-approach ($\beta = .22, p < .001$) were associated with higher career aspirations; performance-avoid was not significant ($\beta = -.01, p = .76$). Perceived congruence at Step 2 accounted for a further 1%, $F(1, 596) = 10.36, p < .01$. Higher mastery-approach ($\beta = .23, p < .001$), performance-approach ($\beta = .21, p < .001$), and perceived congruence ($\beta = .13, p < .01$) were associated with higher career aspirations. At Step 3, the interaction terms as a group were significant, with two individual terms (mastery-approach x perceived congruence and performance-approach x perceived congruence) explaining unique variance, $F(3, 593) = 5.67, p < .01$. At Step 3, 21.1% of the variance in career aspirations was accounted for. Because of multicollinearity problems associated with multiple interaction terms, we followed the recommendations of Jose (2013) and tested each interaction term separately. These analyses confirmed that mastery-approach x perceived congruence and performance-approach x perceived congruence, but not performance-avoid x perceived congruence, accounted for significant variance in career aspirations. See Table 2.

The interaction terms were graphed at $\pm 1SD$ of the mean for levels of the moderator. The results demonstrated that career aspirations were higher as levels of mastery-approach increased for both the high and low perceived congruence groups, but increased more strongly for the high perceived congruence group, suggesting that perceived congruence facilitates higher career aspirations when mastery-approach is higher (i.e., perceived congruence strengthens the relationship between mastery-approach and career aspirations). Similarly, career aspirations were also higher as levels of performance-approach increased for both groups, but increased more strongly for the low perceived congruence group, suggesting that perceived congruence with parents dampens aspirations when performance-approach is higher (i.e., perceived congruence weakens the relationship between performance-approach and career aspirations). See Figures 1 and 2.

Discussion

We tested a model based on social cognitive career theory (SCCT) that included both person (goal orientation) and contextual (perceived congruence with parents) variables as antecedents to career aspirations. In this model, we proposed that mastery-approach and performance-approach would be associated positively with career aspirations, and performance-avoid would be associated negatively with these aspirations. We also expected that perceived congruence with parents would facilitate the relationship between mastery-approach and performance-approach orientations and career aspirations, but weaken it for performance-avoid.

We found positive associations between mastery-approach and performance-approach and career aspirations, and found that the relationship between mastery-approach and aspirations was strengthened when perceived congruence was higher, although this interaction was weak. This suggests that, for mastery-approach, higher perceived congruence might act as a support that facilitates desired personal development and higher levels of career aspirations. This is consistent with Garcia et al.'s (2012) study, which involved adolescents from a collectivist context (i.e., the

Philippines), who found that higher perceptions of parental support bolstered the relationship between mastery-approach orientation and career decision-making self-efficacy.

We also found that the relationship between performance-approach and career aspirations was weakened when perceived congruence was higher, although, again, this interaction was weak. This indicates that those with a stronger performance-approach orientation had lower aspirations when congruence was higher. This suggests that performance-approach adolescents might not feel the need to aspire so highly (i.e., to prove themselves) when they are in agreement with their parents; that is, perceived congruence might take away some of the drive to demonstrate their worth. As having a performance-approach orientation will be fostering goals of demonstrating competence and outperforming others to make collectivist adolescents' parents proud (Urdan, 2004), those low on perceived congruence might be working harder (i.e., utilizing more of a performance-approach orientation) to obtain approval from their parents; whereas, performance-approach adolescents who are congruent with their parents, might not feel the need to aspire as highly.

Different from our expectation, performance-avoid orientation was not associated with career aspirations. This was consistent with previous studies with university students and unemployed adults from individualist contexts (e.g., Creed, Fallon et al., 2009; Creed, King et al., 2009), although inconsistent with studies with high school students (e.g., Creed et al., 2011). However, the finding is consistent with studies in other domains in collectivist settings, which have demonstrated that avoidance goals might not be negatively related to outcomes (Elliot et al., 2001). Although avoidance goals are in line with the cultural emphasis on avoiding negative outcomes, these goals might not be related to achievement outcomes because they do not generate the outcomes targeted by the individual (cf. Elliot et al., 2001).

Perceived congruence did not moderate the association between performance-avoid and career aspirations, indicating that for performance-avoid adolescents in collectivist cultures, higher perceived congruence with parents does not facilitate them setting higher aspirations. This suggests

that performance-avoid adolescents in collectivist contexts will maintain their goal direction whether they are congruent with their parents regarding career matters or not. As both mastery-approach and performance-approach are related positively with career aspirations, and for them perceived congruence with parents facilitates these aspirations (for mastery-approach) and eases pressures (for performance-approach), performance-avoid adolescents appear disadvantaged in relation to their career progress. First, they are more likely to set lower career goals; and, second, are not facilitated to be more ambitious by resolving differences about career direction with their parents; suggesting that they might not be able to draw on parental resources that come from being congruent.

Our findings have several implications. First, career-related education programs and individual interventions aimed at assisting adolescents in collectivist settings to set career aspirations might include a focus on strengthening perceived congruence with parents for mastery-approach and performance-approach adolescents. Such interventions would allow low perceived congruence mastery-approach adolescents to catch up with their peers, and relieve pressure on low perceived congruence performance-approach adolescents who might do better both personally and career-wise if they were more in harmony with their parents. Second, interventions for performance-avoid students might focus on lowering their performance-avoid orientation, as this orientation is not related to setting higher career aspirations.

In conclusion, our study expanded current knowledge by highlighting the roles played by the three goal orientations in the development of adolescent career aspirations in a collectivist setting. Our study also makes a contribution to the career development literature by demonstrating that the relationships between mastery-approach and performance-approach orientations and career aspirations are conditional upon the degree of perceived congruence with parents.

Future research needs to test the model in other collectivist societies and also in Western countries. The external validity of our results might be limited by restricting participants to two high schools in one collectivist country; therefore, generalisation to other adolescent subgroups (e.g.,

junior high school students) should be taken cautiously. As the data were collected at one point in time, future studies need to examine the study variables longitudinally to make stronger causal inferences. Also, we only assessed adolescent perceptions, and incorporating measures from parents will add to our understanding of the mechanisms underlying adolescent career aspirations and reduce potential common method bias. Although we found significant interaction effects, the variance explained was small, suggesting that other variables might play a role in moderating these relationships, and other family, as well as non-family, variables need to be investigated. In addition, the role of goal orientation needs to be examined across the important decision points of career development, when career aspirations might be seen as more important and personally challenging, such as at the final year of certain educational pathways. Finally, we know little about the influences of significant others, other than parents, who might facilitate/compensate for particular orientations and familial relationships, and other contextual variables in the adolescent life need to be assessed in this way.

References

- Bernardo, A. B. I. (2008). Exploring Filipino adolescents' perceptions of the legitimacy of parental authority over academic behaviors. *Journal of Applied Developmental Psychology*, 31, 273-280. doi:10.1016/j.appdev.2010.03.003
- Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research*, (pp. 137-164). London, UK: Sage Publications, Inc.
- Cellar, D. F., Stuhlmacher, A. F., Young, S. K., Fisher, D. M., Adair, C. K., Haynes, S., ... & Riester, D. (2011). Trait goal orientation, self-regulation, and performance: A meta-analysis. *Journal of Business and Psychology*, 26, 467-483. doi:10.1007/s10869-010-9201-6

- Creed, P. A., Fallon, T., & Hood, M. (2009). The relationship between career adaptability, person and situation variables, and career concerns in young adults. *Journal of Vocational Behavior*, 74, 219-229. doi:10.1016/j.jvb.2008.12.004
- Creed, P. A., King, V., Hood, M., & McKenzie, R. (2009). Goal orientation, self-regulation strategies, and job-seeking intensity in unemployed adults. *Journal of Applied Psychology*, 94, 806-813. doi:10.1037/a0015518
- Creed, P., Tilbury, C., Buys, N., & Crawford, M. (2011). Cross-lagged relationships between career aspirations and goal orientation in early adolescents. *Journal of Vocational Behavior*, 78, 92-99. doi:10.1016/j.jvb.2010.09.010
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256-273. doi: 10.1037/0033-295X.95.2.256
- Elliot, A. J. (2005). A conceptual history of the achievement goal construct. In A. Elliot & C. Dweck (Eds.), *Handbook of competence and motivation* (pp. 52-72). New York, NY: Guilford Press.
- Elliot, A. J., & McGregor, H. A. (2001). A 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology*, 80, 501-519. doi:10.1037/0022-3514.80.3.501
- Elliot, A. J., Chirkov, V. I., Kim, Y., & Sheldon, K. M. (2001). A cross-cultural analysis of avoidance (relative to approach) personal goals. *Psychological Science*, 12, 505-510. doi:10.1111/1467-9280.00393
- Erez, M. (2008). Social-cultural influences on work motivation. In R. Kanfer, G. Chen, & R. D. Pritchard (Eds.), *Work motivation*. (pp. 501-538). New York, NY: Routledge.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Garcia, P. R., Restubog, S. L., Toledano, L. S., Tolentino, L. R., & Rafferty, A. E. (2012). Differential moderating effects of student-and parent-rated support in the relationship between learning goal orientation and career decision-making self-efficacy. *Journal of Career Assessment*, 20, 22-33. doi:10.1177/1069072711417162

- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. New Jersey, NJ: Prentice Hall.
- Heine, S. J., & Butchel, E. E. (2009). Personality: The universal and the culturally specific. *Annual Review of Psychology*, 60, 369-394. doi:10.1146/annurev.psych.60.110707.163655
- Ho, I. T., & Hau, K.-T. (2008). Academic achievement in the Chinese context: The role of goals, strategies, and effort. *International Journal of Psychology*, 43, 892 - 897.
doi:10.1080/00207590701836323
- Hofstede, G., & Hofstede, G. J. (2005). *Cultures and organizations*. New York, NY: McGraw-Hill.
- Jose, P. E. (2013). *Doing statistical mediation & moderation*. New York, NY: The Guildford Press.
- Lee, C., Tinsley, C., & Bobko, P. (2003). Cross-cultural variance in goal orientations and their effects. *Applied Psychology*, 52, 272-297. doi:10.1111/1464-0597.00135
- Lent, R. W. (2005). A social cognitive view of career development and counseling. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling*. (pp. 101-127). New York, NY: Wiley.
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45, 79-122.
doi:10.1006/jvbe.1994.1027
- O'Brien, K. M. (1996). The influence of psychological separation and parental attachment on the career development of adolescent women. *Journal of Vocational Behavior*, 48, 257-274.
doi:10.1006/jvbe.1996.0024
- Payne, S. C., Youngcourt, S. S., & Beaubien, J. M. (2007). A meta-analytic examination of the goal orientation nomological net. *Journal of Applied Psychology*, 92, 128-150. doi:10.1037/0021-9010.92.1.128

- Pintrich, P., Zusho, A., Schiefele, U., & Pekrun, R. (2001). Goal orientation and self-regulated learning in the college classroom: A cross-cultural comparison. In F. Salili, C. -Y. Chiu, & Y. -Y. Hong (Eds.), *Student motivation* (pp. 149-169). New York, NY: Plenum.
- Rao, N., Moely, B. E., & Sachs, J. (2000). Motivational beliefs, study strategies, and mathematics attainment in high- and low-achieving Chinese secondary school students. *Contemporary Educational Psychology*, 25, 287-316. doi:10.1006/ceps.1999.1003
- Régner, I., Loose, F., & Dumas, F. (2009). Students' perceptions of parental and teacher academic involvement: Consequences on achievement goals. *European Journal of Psychology of Education*, 24, 263-277. doi:10.1007/BF03173016
- Restubog, S. L. D., Florentino, A. R., & Garcia, P. R. J. M. (2010). The mediating roles of career self-efficacy and career decidedness in the relationship between contextual support and persistence. *Journal of Vocational Behavior*, 77, 186-195. doi:10.1016/j.jvb.2010.06.005
- Rojewski, J. W. (2005). In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling*. (pp. 131-154). New Jersey, NJ: John Wiley & Sons.
- Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2013). The Adolescent-Parent Career Congruence Scale *Journal of Career Assessment*, 21, 210-226.
doi:10.1177/1069072712466723
- Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2014). Parental influences and adolescent career behaviours in a collectivist cultural setting. *International Journal for Educational and Vocational Guidance*. Advance online publication. doi:10.007/s10775-013-9247-x
- Schoon, I., & Parsons, S. (2002). Teenage aspirations for future careers and occupational outcomes. *Journal of Vocational Behavior*, 60, 262-288. doi:10.1006/jvbe.2001.1867
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies. *Psychological Methods*, 7, 422-445. doi:10.1037//1082-989X.7.4.422

- Sideridis, G. D. (2008). Feeling obliged to “do well” or “not to fail”. *Learning and Individual Differences, 18*, 176-186. doi:10.1016/j.lindif.2007.08.008
- Urdu, T. (2004). Predictors of academic self-handicapping and achievement. *Journal of Educational Psychology, 96*, 251-264. doi:10.1037/0022-0663.96.2.251

Table 1

Intercorrelations, Means, Standard Deviations, and Cronbach Alphas; N = 601

Variables	1	2	3	4	5	<i>M</i>	SD	α
1. Mastery-approach	-	.49***	.22**	.35***	.37***	15.19	2.20	.85
2. Performance-approach	.57***	-	.34***	.26***	.35***	14.97	2.16	.82
3. Performance-avoid	.17***	.22***	-	.19**	.12**	13.76	2.75	.70
4. Perceived congruence	.43***	.33***	.14***	-	.26***	55.12	8.04	.89
5. Career aspirations	.56***	.56***	.22***	.50***	-	46.57	6.09	.77

Note. Correlations among scales above diagonal; correlations among latent variables below. ** $p < .01$, *** $p < .001$

Table 2

Hierarchical Regression Analysis (N = 601)

Variables	Career Aspirations			
	ΔR^2	B	SE (B)	β
<i>Step 1</i>				
Mastery-approach (MAP)	.17**	.73	.12	.27***
Performance-approach (PAP)		.63	.13	.22***
Performance-avoid (PAV)		-.03	.09	-.03
<i>Step 2</i>				
Perceived congruence (CO)	.01**	.10	.03	.13**
<i>Step 3</i>				
MAP x CO interaction	.01*	-.24	.54	.68*
<i>Step 3</i>				
PAP x CO interaction	.01*	-.02	.01	-.67*
<i>Step 3</i>				
PAV x CO interaction	.00	.01	.01	.16

* $p < .05$, ** $p < .01$, *** $p < .001$

Figure 1. Perceived congruence moderates between mastery-approach orientation and career aspirations

Figure 2. Perceived congruence moderates between performance-approach orientation and career aspirations