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Adolescent Perception of Potential High-Performing Classmates: A Cross-National Exploration

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Abstract

This study explores how secondary school students perceive high-performing potential classmates. A total of 1,794 seventh- and 10th-grade students from five countries completed a questionnaire measuring their expectations of hypothetical male and female high-performing classmates in three categories: intellectual ability, positive social qualities, and popularity. Across the five countries represented in this study, analyses of variance indicated that students did not report negative attitudes toward the three potential characteristics of a hypothetical gifted peer. Vietnamese students in particular reported more positive observations about the hypothetical classmate than their Australian, Peruvian, South Korean, and Spanish counterparts. Differing cross-national attitudes toward high-performing peers and the implications therein are discussed.

Keywords: high performing students, intellectual ability, peer perception, popularity, positive social qualities

Covariation patterns in personality traits occur when individuals perceive an evident trait of an individual or group of individuals and then utilize this perception as the basis for attributing additional personality characteristics to said individual or group. For example, individuals who think people are intelligent tend to also believe that they are attractive (Moore, Filippou, & Perrett, 2011). Such covariation of personality traits is referred to as *implicit personality theory* (Ashmore & Del Boca, 1979; Baudson & Preckel, 2013; Möttus, Allik, Konstabel, Kangro, & Pullmann, 2008). Commonly held implicit theories of gifted students have been investigated from a social perspective by collecting both teachers' opinions (Baudson & Preckel, 2013) and peers' perceptions (Händel, Vialle, & Ziegler, 2013; Quatman, Sokolik, & Smith, 2000). Initially, these studies revealed two contradictory views as to the perceived traits of academically high-performing students, the first of which pointed to a focus on academic success as a socially desirable trait (Carrington, 1996; Paulhus, Wehr,

Harms, & Strasser, 2002). This indicates that students described an archetypal intelligent person in generally favorable terms: top academic performers are perceived as highly intellectual and also as socially competent. Students tended to hold personality stereotypes of highly intelligent people that greatly contrasted with stereotypes attributed to people of lower intelligence (Möttus et al., 2008). For example, Nowicki's (2003) meta-analysis demonstrated that, when compared to their attitudes toward average- and high-achieving performers, school students perceived the social skills and social status of underachieving school students or students with learning disabilities less favorably. Nonetheless, researchers do question this favorable perception, pointing to alternative accounts as examples of potential negative emotional and social aspects attributable to highly able students (Coleman & Cross, 2014; Freeman, 1983). Desynchronized suppositions imply that academically high-performing students are intellectual but socially awkward (Luftig & Nichols, 1990). The "nerd" (Gates, 2010), "boffin" (Francis, 2009), and "teacher's pet" (Trusz, 2017) clichés indicate that there may be a perceived covariation pattern to stereotyping supported by the *gifted* label. In an academic context, gifted refers to an expert-driven and explicit conceptualization governing a pedagogical need to both identify high-performing individuals and ensure that their learning needs are addressed. This is a contemporary empirical exploration that attempts to provide evidence for a perceived covariation pattern between

Note. All analyses were repeated with a hierarchical log-linear analysis after median split of the variables. Results in terms of significances can be replicated.

academically high-performing students and their attributes. It examines perceived relationships between personality dispositions, academic level, gender, and culture. This study specifically focuses on peer expectations of academically highly able adolescent students in different countries and whether a student observer's personal academic achievement level affects those expectations.

Peers' Perceptions of High Performers in Academic Fields

There is ample research suggesting that students' prevailing beliefs play a role in the social adjustment or maladjustment experienced by academically high-performing students. The literature reviewed herein includes studies that investigate peer-ascribed perceptions of high performers in school settings. The characteristics of high performers in terms of intellectual competence, social competence, and social preference were reported as embedded within a constellation of personal (gender and academic levels of observers) and environmental factors (cultural context).

Neisser's (1979) prototype analysis considers an intelligent person as an imagined concept. The prototype approach yields a typical example of an intelligent person based on a form of attributions abstracted from exemplars. In studies concerned with intelligence, individuals generate certain attributes that they believe to be typical of an intelligent person. In Paulhus et al.'s (2002) study, college students in the United States were asked to write down names of intelligent people. The students evaluated the properties of the intelligent archetype, which then resulted in the generation of the five attributes of intelligent persons: scientific (i.e., Einstein), artistic (i.e., Mozart), entrepreneurial (i.e., Trump), communicative (i.e., Clinton), and moral (i.e., Mother Theresa). Results of a later study carried out by Aljughaiman et al. (2012) confirmed the prototype of the intelligent person. His research in particular involved seventh-grade students in Germany and Kenya who were asked to create a drawing of an intelligent person and to subsequently evaluate eight traits associated with each prototype based on how much the students agreed with the prototype's level of intelligence. The results showed that the seventh-graders strongly agreed with the idea that an intelligent person is talented in language and mathematics, socially competent, and popular.

Tannenbaum (1962) then questioned whether the notion of anti-intellectualism and highly able students in school was, in fact, held within the United States. This study depicted the intelligence of hypothetical students according to whether or not they exhibited each of the three attributes. High school students were asked to rate each of the hypothetical students who varied in the eight combinations of the dichotomous attributes (brilliant or average; athletic or nonathletic; and studious or nonstudious). The derived measurement was replicated (Cramond & Martin, 1987) and adapted in other countries (Carrington, 1996; Lee, Cramond, & Lee, 2004; Rudowicz,

2007). Data from the studies indicated that students do not reject brilliant classmates on the grounds of exceptional intellectual ability. In addition, previous empirical studies have consistently demonstrated associations between students' academic success, socially desirable personal traits (Möttus et al., 2008), and social status (England & Petro, 1998; Nowicki, 2003; Richards, Encel, & Shute, 2003).

Not all studies, however, support the assumption that students hold positive perceptions of their high-achieving peers. Theoretical support for the stereotype of highly able students can be derived from factors of competition and status that influence stereotypes (Cuddy et al., 2009). Competition indicates a desired resource by an individual or group. Individuals or groups then detect potentially conflicting goals, and this awareness fuels a motivation to obtain desired resources. For example, if a student sees a classmate as a potential competitor for social status among peers, he tends to distance himself from this classmate. The other social construct that results in stereotyping is status: the ability to acquire resources from others. An individual or a group that holds high status tends to have a lot of control over allocating and managing resources. Hence, this framework provides insight into the development of social perception as a conflict between notions of competence and incompetence. It further explains that perception elicits emotional prejudice (admiration, contempt, envy, pity), something attributable to the human condition (Cuddy et al., 2009). Furthermore, competition and status help answer the question as to why individuals implicitly incorporate stereotypical beliefs held within their social groups into their own self-concepts (Greenwald et al., 2002; Lun, Sinclair, & Cogburn, 2009).

With respect to positive stereotypical characteristics, individuals also tend to create greater levels of prejudice in evaluations of group members. Positive consensual beliefs are helpful in justifying one's own status and in maintaining intergroup relations. This complements the pursuit of positive self-views through group membership demonstrated in work by Lun et al. (2009). In this way, the distinction between in-groups and out-groups produces less positive evaluations of people who are identified as out-group members (Gaertner, Iuzzini, Witt, & Oriña, 2006; Kinney, 1993). Likewise, in a school context, students constantly compare their own abilities with those of other students (e.g., Möller & Husemann, 2006). In light of this comparative paradigm, academic success is a key social comparison signal that overtly reflects individual differences in schools. In general, comparisons to others who are more successful than oneself bring a potential threat to one's self-concept (Marsh, 1987) and are strongly associated with both affective influences on peers' mood states (Alicke, Zell, & Guenther, 2013) and prospective envy of high-performing peers (Massé & Gagné, 2002).

Specifically, the image of the gifted child constructed by coeval peers is susceptible to prevailing stereotypes associated with the high performer's gender (Händel, Duan, Sutherland, & Ziegler, 2014; Luftig & Nichols, 1990;

Quatman et al., 2000). In a study of U.S. students, Luftig and Nichols (1990) examined whether nongifted students' perceptions of gifted peers depended on the gender, social status, and personality attributes of the high performer. The targets of this study were gifted students from Grades 4 to 8 who had been identified through intelligence tests, academic grades, achievement test scores, as well as teacher and parental nominations. The study revealed that gifted girls were deemed less popular than gifted boys by their peers. The students considered the gifted boys smarter, more popular, and more physically attractive than other groups (gifted girls, nongifted boys, and nongifted girls). The gifted girls were viewed as smarter than the nongifted students, but their popularity was the most underrated among the four groups. The same pattern applied to adolescents in Germany (Ziegler, Fidelman, Reutlinger, Neubauer, & Heilemann, 2011). In chat rooms, 14- to 19-year-old Germans were asked to choose from conversation partners who were labeled with one of four traits: sportiness, attractiveness, wealth, and giftedness. The degree of interest in a conversation partner was also examined for male and female users. The male and female users most often rejected the chat partner portrayed as a gifted girl. Although male users did typically refuse gifted boys as chat partners, female users preferred the chat partner described as a gifted boy.

Significance

Our study matters because the expectations imposed on gifted children do have a significant impact on the academic potential of highly able students. If gifted children are expected to fulfill a stereotype held by their peers, that expectation is understood from tacit acknowledgment through stereotype reinforcement. As a result, gifted children may become motivated to obfuscate personal qualities in an attempt to modify their behavior toward others within a learning environment. For example, high-ability students exhibited common behaviors to both cope with and mitigate the level of perceived threats. Swiatek's (2001) study revealed that gifted students who viewed their high ability as an obstacle to fitting in or who denied being gifted in the first place considered themselves socially unaccepted by their peers. They did, however, concede that they maintained close friendships with those peers. Moreover, the work of Coleman and Cross (2014) indicated that highly able students are conscious of what constitutes appropriate behavior at school. The study noted that gifted students are reluctant to talk about their strengths. Before acknowledging their own positive qualities, these students commonly struggled to neutralize excellent aspects about themselves. If it is true that the stereotyping of gifted students discourages them from expressing their

own interests to others or engaging in academic activities altogether, then it is reasonable to expect that stereotyping affects the communication skills of these children. It is not necessarily the case that gifted children—and gifted girls in particular—are uninterested in male-dominated fields like science, technology, engineering, and mathematics; rather, they are discouraged from vocalizing those interests and strengths.

Objective of the Study

This inquiry focuses on academic excellence as an attribute that may be associated with the following personal traits: intellectual ability, positive social qualities, and popularity. Adolescents have been shown to define specific peer group types according to these characteristics and to then categorize peers into these group types (e.g., England & Petro, 1998). These attributions are important because they have implications for the social and psychological adjustment of high-performing students (Coleman & Cross, 2014; Gates, 2010; Nowicki, 2003). Previous empirical research (Händel et al., 2013, 2014; Quatman et al., 2000) found gender differences in students' expectations of high-performing male and female peers regarding intellectual and social competence, as well as popularity. Along those lines, we will address the following concerns: (a) perceived covariation between academically high performers and the three aforementioned personality traits; (b) the effect of observer characteristics (academic level and gender) on the perceived characteristics of high-performing students (target gender: male high performer vs. female high performer); and (c) macrosystemic influences on a national level. We investigated student attitudes toward high-achieving peers in five countries: Australia, Peru, South Korea, Spain, and Vietnam. The decision to include these countries in the study was directly influenced by previous work that suggests using the concepts of educational and learning capital for cross-national comparisons (for details on the capitals, see Phillipson, Stoeger, & Ziegler, 2013). More specifically, we employed two criteria in our selection process: cultural educational capital—that is, how much learning is valued in a country—and economic educational capital, represented in our study by country expenditure for education. First, we identified two countries as nations with high cultural educational capital but varying levels of economic educational capital; South Korea and Vietnam spend substantially less economic educational capital on learning than the other three countries (for Organization for Economic Development [OECD] countries: South Korea vs. Australia and Spain, cf. OECD, 2013b; for non-OECD countries: Vietnam vs. Peru, cf. World Bank, 2013). Secondly, Australia, Peru, and Spain have less cultural educational capital in comparison to their East Asian counterparts. The latter group's economic educational capital

appears to feed cultural educational capital, as indicated by positive correlations between the two capitals (Ziegler, Balestrini, & Stoeger, 2018). For example, both Spain's economic and cultural educational capital fall within the middle range, whereas Peru has rather low values of both; Australia showed a reverse pattern.

Virtually every country with a schooling system claims that learning is valued (Tweed & Lehman, 2002). In practice, few countries have truly low cultural capital with respect to scholastic education. This assessment does not exclude the possibility that there can exist substantial differences within any one nation in terms of cultural educational capital. Though some studies have already investigated the gender-related perceptions of high-performing students, the differences with respect to cultural educational capital highlighted in the research provide initial empirical support for students' perceptions of high achievers as exogenous sociocultural resources. Moreover, previous studies have failed to explore whether the gap between economic and cultural educational capital is linked to expectations imposed on academically gifted individuals. Research on cultural educational capital in countries where the investment in initiating and maintaining education and learning is abundant produced empirical evidence with respect to values and stereotypes imposed on gifted children and adolescents, as well as critical points of view on anti-elitism in gifted education (Carrington, 1996; Feather, 2008; Vialle, 2017). Additionally, previous work on the high academic performance of East Asians has mainly focused on the fact that countries with comparatively high cultural educational capital are concentrated in East Asia; episodic learning capital (represented by relevant action patterns toward accomplishing goals in learning contexts) is comparatively high in these countries (Balestrini &

Stoeger, 2018; OECD, 2016; Phillipson et al., 2013; Ziegler et al., 2018). The present study builds on these ideas by advancing the concept that certain factors could exacerbate a distorted *belief* paradigm regarding academically gifted students.

METHOD

Participants

The total number of student participants in this study is 1,794; all of the students were in either the seventh or 10th scholastic grade and hailed from mixed-ability classrooms in urban areas (Sydney, Barcelona, Lima City, Ho-Chi-Minh-City, and Incheon). Of the 1,794 participants, 479 were Vietnamese (48.6% male), 359 South Korean (52.4% male), 168 Australian (47% male), 399 Peruvian (51.4% male), and 389 Spanish (55% male). Ages ranged from 12 to 18 years (see Table 1). Participants reported their most recent academic marks in three or four major compulsory subjects. Researchers who frequently rely on self-reported grades to assess academic achievement have found that doing so generally produces accurate results (i.e., Kuncel, Credé, & Thomas, 2005; Rosen, Porter, & Rogers, 2017). With that in mind, coeval students who reported a performance average (indicated by self-reported school marks or grades) within the top 10% of their grade at a shared institution comprised this study's higher-achieving group. Participants whose marks fell below this 10% benchmark were assigned to the lower achieving group. Participants ranked within the highest 10% included 80 Vietnamese (45% male), 35 South Korean (60% male), 31 Australian (48.4% male), 46 Peruvian (43.5% male), and 31 Spanish (45.2% male) students. There were no significant age-

TABLE 1
Participant Characteristics by Country

Grade	Age (Years)	Participants (%)				
		Vietnam (n = 245)	South Korea (n = 172)	Australia (n = 65)	Spain (n = 199)	Peru (n = 200)
7th	12		6.4	27.69		6.50
	13	98.37	93.60	69.23	96.98	92.50
	14	1.63		3.08	3.02	1.00
10th		Vietnam (n = 234)	South Korea (n = 187)	Australia (n = 102)	Spain (n = 190)	Peru (n = 199)
	13		0.53			
	14				1.05	
	15		9.63	31.37		11.06
	16	100	89.30	66.02	90.53	85.93
	17		0.53	1.94	6.84	3.02
	18				1.58	

Note. Students were only asked to provide the year of their birth in accordance with the particular ethical and legal issues that each of the participating schools were subject to. Participant age averages derived from the difference between the test year and birth year. The age of 0.97% of the Australian 10th graders ($n = 1$) is unknown.

related discrepancies between students in the top 10% and the lower 90% of each country grouping ($ps > .05$).

Assessments and Measures

To measure peer expectations of high-achieving students, we used an adapted version of a questionnaire developed by Händel et al. (2013). This method was particularly useful to the study because it reduced excessive information, minimizing the affective judgment of the participants. However, the original version of the questionnaire was domain specific and geared toward exploring peer perceptions of high-achieving classmates in certain school subjects (mathematics, sciences, sports, etc.). In the current study, we used a domain-general version of this questionnaire that measured students' general perceptions of a high-performing peer (see Oh et al., 2014).

This study compared student expectations of high-achieving girls versus high-achieving boys. To compare the expectations, we used a scenario describing a hypothetical high-performing girl or high-performing boy. Participants received short descriptions of the would-be student that were separated according to the gender of the hypothetical classmate. In other words, students did not receive both vignettes simultaneously; rather, the vignette of the gifted boy was received separately from that of the gifted girl (see Appendix). The vignettes were designed to conjure up images of the target via implicit information about the stimulus target's gender. For example, the statements about the hypothetical male and female figures vary by feminine and masculine anaphoric pronoun (she/he, her/him). Moreover, both vignettes were designed to mimic realistic peer interactions in a school setting wherein student observation of peers is incomplete and fragmentary. In this way, our work attempted to offer a more controlled study of gendered hypothetical high performers.

Participants then rated a number of traits that the hypothetical female or male student might display. In order to test the effects of preceding questions in our questionnaire, we did not fix the order in which the questions appeared to the students. Roughly half of the participants completed the subscale items related to their expectations of the hypothetical gifted male before answering the questions related to the hypothetical gifted female. The other half of the participants completed the questions related to the female subscales first. This did not result in significant differences across any of the country groups ($ps > .05$).

The same 14 items were asked in both questionnaires. The 14 items measured three aspects of students' image: intellectual ability, positive social qualities, and popularity. The four-item scale was used to define the degree of intellectual ability of the participants' high-performing male or female classmate (e.g., "I would expect that the new classmate, who I only knew was the best in his/her previous school, can

think well"). Interitem correlations for the reliability of the intellectual ability scale of a new high-performing male student (INT_M) versus a new high-performing female student (INT_F) are 0.79 and 0.77, respectively. Social traits and qualities were measured using six items. Students responded to statements like "[...] shares interests with other students." The interitem correlation for "positive social qualities" of a new high-performing male student (SOC_M) was 0.83, and it was 0.82 for a new high-performing female student (SOC_F). Perceived popularity was measured using a four-item scale that described various aspects of peer acceptance and social preference such as "[...] will be popular in the classes." The Popularity subscale for a new high-performing male student (POP_M) and high-performing female student (POP_F) produced alpha coefficients of .60 and .59, respectively. The internal consistency coefficients were calculated for each of the scales for all participants across the five countries in this study. Each question and hypothetical was answered on a 6-point Likert scale. Higher scores indicated stronger endorsement of the traits attributable to the high performer in question.

Procedure

For the countries in which English is not the national language, native speakers translated written items from English into Spanish; English into Vietnamese; and English into Korean. Translation accuracy was confirmed through back-translation. After permission was obtained from both the affiliated school principals and then the accountable school teachers, participants were asked to report their gender, age, and school grades as reflected in their report cards; the students were then asked to complete the questionnaires. Ethical consent was obtained according to respective country regulations. Students were informed that the questionnaire was anonymous and that participation was voluntary. Students completed the questionnaire during class. There was no time limitation for completing the questionnaire.

RESULTS

Is There a Perceived Covariation Between Academic Excellence and Personal Traits?

The means and standard deviations of each variable (INT_M, INT_F, SOC_M, SOC_F, POP_M, and POP_F) are shown by country and academic achievement groupings (see Table 2). It is clear from the descriptive analyses that participants across all five countries did not have negative expectations of hypothetical male and female high-performing classmates across the chosen facets. It is noted that the participants across the country groups and academic achievement levels viewed both male and female high performers as highly intellectual and sociable. Although the ratings regarding the expected

TABLE 2
Descriptive Statistics for Analytical Measures

Target	Country	Intellectual Ability		Positive Social Qualities		Popularity	
		Top 10%	Bottom 90%	Top 10%	Bottom 90%	Top 10%	Bottom 90%
		M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
High-performing boy	Vietnam	4.41 (0.97)	4.68 (0.90)	3.98 (0.92)	4.25 (0.92)	3.88 (0.50)	3.88 (0.51)
	South Korea	4.61 (0.60)	4.33 (1.05)	4.14 (0.83)	3.81 (1.06)	3.50 (0.70)	3.56 (0.64)
	Australia	4.88 (0.84)	4.64 (0.87)	4.33 (0.85)	4.39 (0.91)	3.98 (0.59)	3.92 (0.53)
	Peru	4.76 (0.66)	4.51 (0.69)	4.63 (0.74)	4.60 (0.70)	3.57 (0.44)	3.78 (0.44)
	Spain	5.17 (1.02)	4.96 (0.94)	5.34 (0.91)	5.25 (0.84)	3.91 (0.62)	3.86 (0.61)
High-performing girl	Vietnam	4.39 (0.95)	4.75 (0.87)	4.06 (0.91)	4.32 (0.97)	3.80 (0.48)	3.93 (0.54)
	South Korea	4.50 (0.80)	4.36 (0.91)	4.13 (0.71)	3.79 (0.98)	3.50 (0.50)	3.46 (0.61)
	Australia	5.08 (0.66)	4.75 (0.82)	4.57 (0.67)	4.42 (0.94)	4.01 (0.60)	3.88 (0.49)
	Peru	4.65 (0.65)	4.48 (0.66)	4.57 (0.68)	4.50 (0.71)	3.73 (0.47)	3.77 (0.47)
	Spain	5.24 (0.75)	4.98 (0.98)	5.52 (0.68)	5.23 (0.89)	3.93 (0.60)	3.85 (0.60)

popularity of high-performing classmates were consistently lower than those measuring intellectual ability and positive social qualities, the ratings were still generally favorable.

Effects of Observer Characteristics and High-Performer Characteristics

A repeated-measures analysis of variance was performed to examine significant differences between student expectations of high-performing male and female peers (target gender) versus participant gender and level of academic achievement. Raw scores of the two variables concerning intellectual ability (INT_M and INT_F) were entered into a repeated-measures analysis of variance with the target gender as the *within-participant* variable and participant gender and level of academic achievement as the *between-participants* variable. The same process was performed with two variables regarding positive social qualities (SOC_M and SOC_F) and two variables regarding popularity (POP_M and POP_F). When detecting the main effects of each country across the three categories, univariate testing found that the significant effects across the country groups were consistently receptive. Nationality had a significant effect on ratings of perceived intellectual ability, $F(4, 1784) = 13.81, p < .01, \eta^2 = 0.03$. Post hoc tests employing Gabriel's test with an alpha set at .05 showed that the Spanish adolescents held the highest endorsement of the high performers' intellectual abilities. There were no statistically significant differences between the Australian adolescents' scores concerning expected intellectual ability and those of the Peruvian and Vietnamese adolescents. The Vietnamese adolescents' ratings of expected intellectual ability were higher than the scores of the Peruvian adolescents. Overall, the greatest numbers of significant pairwise comparisons occurred between Spanish and South Korean adolescents, but there were no significant differences between the scores of South Korean adolescents and those of Vietnamese students (see Figure 1). The

interaction between country and participant achievement level was significant, $F(4, 1784) = 5.17, p < .01, \eta^2 = .01$. As shown in Figure 2: South Korean, Peruvian, Spanish, and Australian adolescents in the top 10% of achievement appeared to respond more positively than those in each of the lower achieving groups. In contrast, Vietnamese in the lower achieving group ($M = 4.71, SE = 0.04$) responded more positively than those in the top 10% of achievement ($M = 4.39, SE = 0.09$). The differences between the scores of the groups in the top 10% and the scores of the remaining group were not statistically significant in each of the countries.

Moreover, nationality had a significant impact on ratings of the perceived positive social qualities, $F(4, 1784) = 56.50, p < .01, \eta^2 = 0.11$. Regarding positive social qualities of a new male or female high-performing classmate, post hoc analyses verify significant mean differences among the four groups: Spanish adolescents' highest endorsements were significantly higher than those of adolescents in other countries. South Korean adolescents had the lowest endorsements, and these were significantly lower than the second lowest scores of Vietnamese and Australian adolescents. Peruvian student ratings ranked in the second highest group and were not significantly different from the score of Australian students. The different country expectations of positive social qualities are depicted in Figure 2. The interaction between country and participants' academic level was significant, $F(4, 1784) = 3.68, p < .01, \eta^2 = 0.08$. Contrasts revealed that the rating of South Koreans in the top 10% ($M = 4.14, SE = 0.14$) was significantly higher than the rating of South Koreans in the rest of the group ($M = 3.80, SE = 0.05$). Conversely, the rating of Vietnamese in the top 10% ($M = 4.01, SE = 0.09$) was significantly lower than the rating of Vietnamese in the rest of the group ($M = 4.29, SE = 0.04$). No other integrations or variables influenced perceptions of the

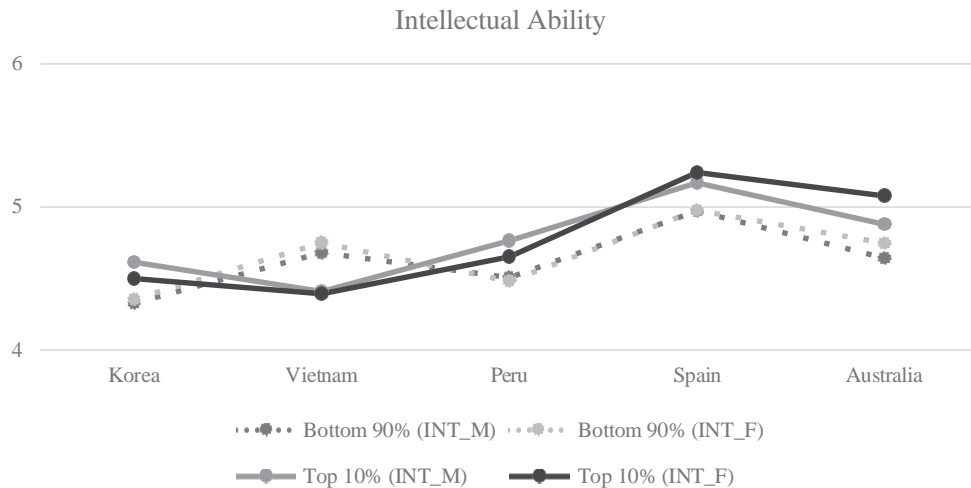


FIGURE 1 Country comparisons of peer expectations surrounding the intellectual ability of a high-performing classmate.

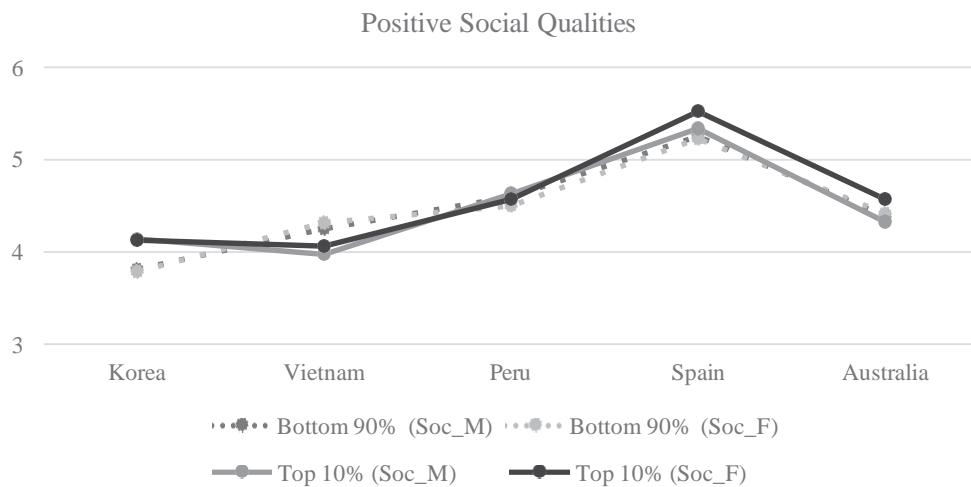


FIGURE 2 Country comparisons of peer expectations surrounding the positive social qualities of a high-performing classmate.

high-performing student portrayed in the short description.

There were discrepancies among participating countries in the reported perceptions of high-achiever traits regarding popularity, $F(4, 1784) = 18.41, p < .01, \eta^2 = 0.04$. No significant differences in perceived popularity were associated with any other independent variables or with the interaction effect on the variables POP_M and POP_F. Expected popularity revealed a different pattern of results than did perceived intellectual and social ability. Gabriel's post hoc test showed that the scores of South Korean adolescents were significantly lower than the scores of adolescents from the other four countries, showing a neutral perception of high performer popularity (see Figure 3). The expected popularity rating from Vietnamese, Australian, and Spanish students did not differ significantly. Peruvian students' second lowest score was

not significantly different from the score of Spanish students.

DISCUSSION

The purpose of this study was to explore how school students perceive hypothetical academically high-performing peers. Three personal traits attributable to an academic high performer were measured through the creation of a scenario describing a hypothetical top-performing student. Adolescent students in regular schools read about the successful new male or female student and then responded by indicating to what degree they expected the three characteristics of the hypothetical student to be true. Furthermore, this investigation pursues three exploratory aims: (a) that determine characteristics of a perceived high-performing new classmate, (b) that focus on the observer and the hypothetical

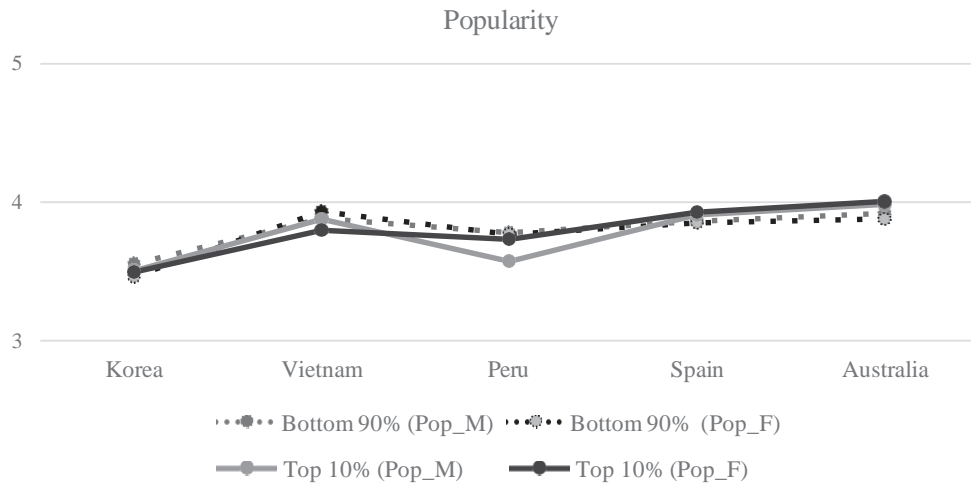


FIGURE 3 Country comparisons of peer expectations surrounding the popularity of a high-performing classmate.

target student's gender as potential moderating variables, and (c) that nationality would act as a moderating variable given that countries differed in their profiles of economic educational capital and cultural educational capital.

The first trait described to the students in this study touched on students' beliefs surrounding the intellectual ability of an academic high performer. Adolescent students across the five countries reached a consensus indicating that they observed high-performing male and female classmates as intellectual. The data from this study underscored a general belief that intellectual ability is a trait attributable to academically high-performing students, regardless of gender or observer academic level. Overall, the research findings provided support for the argument that academic excellence is not viewed as a gender-typical task. A speculative interpretation of the results of this study suggests that adolescent students equate high achievement with intelligence.

Intellectually gifted individuals have been typically identified using a specific definition of general cognitive ability. IQ is an average score generated from scores of subtests related to cognitive mental abilities (e.g., Spearman's [1927/2005] two-factor theory of intelligence and Cattell's [1963] theory of fluid and crystallized intelligence). Theorists assumed that IQ tests measured individual differences among people who (a) have high *average* scores across major dimensions of cognitive ability and (b) tend to learn and perform generally well in all aspects of cognition. General cognitive ability has been measured using a nonverbal ability test (i.e., Raven's Progressive Matrices; Raven, 1938). Views about intelligence have broadened to include Sternberg's (2017) work on analytical, practical, creative, and wisdom-based aspects of intelligence, as well as Gardner's (1983) view of multiple intelligences. Beyond the diverse but still static view of the concept of *intelligence*, the giftedness development

process has recently taken into consideration how intelligent children adapt to environmental changes over time (Phillipson et al., 2013). Although there are no up-to-date specific and systematic studies that investigate students' implicit beliefs about intelligence in the adaptation process, it is clear that students either rate intelligence as an important attribute of high-achieving peers or estimate scholastic achievement as intelligence. In predicting general cognitive ability, the "high achiever" label might be related to students' experiences and observations that school achievement and intelligence tests predicting general cognitive ability are evidently designed to position top students in advanced educational programs. Thus, data from across the five countries in this study challenge the theory that a scientist's or scholar's imposition of the traditional intelligence concept in a school setting or on the would-be high achiever might be a central factor when students form impressions of high-achieving students.

Positive social qualities constitute the second trait that this study examined. Adolescent students equated positive social qualities of a high-performing classmate to positive attributes. These results are consistent with other studies that found that adolescent students held positive attitudes toward the social traits of high-performing students (England & Petro, 1998; Händel et al., 2014; Nowicki, 2003; Richards et al., 2003). Among them, Spanish students' attitudes were the most positive across all grade groups. This pattern is consistent with other studies that capture the views of gifted students in Spain. For example, students, parents, and teachers estimated that highly able students were more likely to understand feelings and intentions of oneself and others (Godor & Szymanski, 2017; Hernández-Torrano, Ferrándiz, Ferrando, Prieto, & Fernández, 2014). Their ratings of high performers regarding social ability were higher than those of linguistic intellectual ability, logical mathematical ability, and naturalistic

ability, all of which are related to academics. In addition, the pattern of results produced in this work coincides with the data from the Programme for International Student Assessment [PISA] 2012 study (OECD, 2013a). Using data from the recent PISA study, Godor and Szymanski (2017) compared self-reported responses of students' feelings of social connectedness among 13 European students, including those from Spain. High-achieving 15-year-old students ranking in the 95th percentile of math scores identified themselves in a positive way, indicating that they had a high sense of belonging among their peers. The Spanish students captured in Godor and Szymanski's (2017) study were aware of social connectedness to their peers and school (e.g., as indicated by the question: "I feel like I belong at school").

The final trait we examined was related to popularity. Across the countries, the students' observations of their high-performing peers were not static in their neutrality. For adolescents, developing academic competence is generally a potential benefit toward the social adjustment of high performers in a school setting (England & Petro, 1998; Prinstein, 2007). Adolescents tend to think that, among themselves, a popular student exhibits positive social qualities. However, data from South Koreans in the lower-performing group (the other 90%) and from Peruvian and Vietnamese students implied that positive social qualities are not necessarily a strong determinant of student popularity. In regard to both popularity and social qualities, this study specifically notes that South Korean adolescents in the lower achieving group were less likely to hold stereotypical endorsements of high performing peers (the new high-performing stimulus target) than their higher-achieving counterparts. Further investigation is required to gain a clear understanding as to which individual characteristics provide decisive accounts of attitudes toward high performers in South Korea. For instance, students do not consider academic success to be the only stereotypical attribute of high performers (Kinney, 1993; Rentzsch, Schröder-Abé, & Schütz, 2012). Rather, specific observable traits like physical attractiveness, strong orientation toward academic achievement, and likeliness to participate in anti-social behaviors are attributes that are more often part of the stereotype of the gifted child (e.g., England & Petro, 1998; Rudowicz, 2007).

This study also considered cultural educational capital as a variable affecting observations about high performers. We argue that a cultural emphasis on educational and episodic learning capital may be critical to our understanding of public attitudes toward high performers, particularly in South Asia. For example, we found lower levels of perceived covariation patterns among South Korean and Vietnamese students than among Australian and Spanish students. In East Asia, both cultural educational capital and high levels of episodic learning capital appear to be crucial

to the development of excellence, with the latter affecting student access to attentional resources in the development of effective learning strategies (Ziegler et al., 2018). There is some indication from previous research that East Asian student learning is based on effort (e.g., Evans, Schweingruber, & Stevenson, 2002) and that they place greater value on achievement (e.g., Hsin & Xie, 2014), ultimately facilitating academic success. On a societal level, South Korean (Kim & Park, 2006; Matsumoto & Yoo, 2006; Mizokawa & Ryckman, 1990) and Vietnamese students (see Mizokawa & Ryckman, 1990) maintain that academic success is mainly acquired by effort and persistence. The fact that students spend most of their time in after-school classes organized by commercial companies accounts for the high social and psychological costs of academic success in South Korea and Vietnam (see OECD, 2013b). To this day, there has been no systematic exploration of the link between episodic learning capital and the need to achieve academic success. Moreover, there is little empirical evidence available that captures peer perceptions of high-performing students. In a research context, our results have shed light on a vague South Korean and Vietnamese mindset linking high performance and appropriate episodic learning capital. Note that for these two countries, and unlike Australia, Spain, and Peru, indices of financial resources do not adequately explain higher level academic performance (OECD, 2013b). The high-performance phenomenon in South Korea and Vietnam may be partially attributable to the episodic learning capital that underlies higher levels of national academic performance. This study raises the question: Can peer ambiguity toward high performers in South Korea and Vietnam adequately explain high-level performance?

By using diverse sets of participants selected in accordance with individual achievement status in a school setting, we examined peer endorsements of a hypothetical top performer's personal traits. The Australian, Peruvian, South Korean, and Spanish participants in this study evaluated the hypothetical top performer's intellectual ability more positively. Though Vietnamese students' results were slightly at odds with this finding, lower performing Vietnamese participants viewed a potential highly able classmate as more intellectual and socially competent. The observations of both lower and higher performing Vietnamese groups were still positive. Moreover, it is human nature to judge whether an "other" intends to be helpful or harmful or whether he or she is competent (Cuddy et al., 2009). In applying the latter to dimensions of status and competence, our results appear to hint at a yearning (intension fueled by high-achiever status) on behalf of Vietnamese lower performers to place themselves with or in close proximity to higher achieving students (competence). When lower achieving students recognize that working alongside high performers can improve their own academic performance,

participation in groups with high-achieving students increases (Li, Han, Zhang, & Rozelle, 2014; Robison-Awana, Kehle, & Jenson, 1986).

Despite its exploratory nature, this study offers some insight into Vietnamese students' resilience. Academic resilience in the PISA study refers to the ability of students to perform at high levels despite socioeconomically disadvantaged backgrounds (OECD, 2016). Resilient Vietnamese students accounted for more than 75% of participants from socioeconomically disadvantaged backgrounds, reflecting a weaker relationship between academic performance and socioeconomic status (cf. South Korea: Korea 40.4%; Spain: 39.2%; Australia: 32.9%; Peru: 3.2%; OECD, 2016). In the context of Vietnam, it would be helpful to continue exploring the relationship between academic resilience and positive peer attitudes toward high achievement.

Limitations and Future Prospects

Though we showed that East Asian students' perceptions of high-achieving peers correspond with the exogenous socio-cultural weight imposed on learning and education, our study was hindered by certain procedural limitations. Data for this study were collected as part of a larger cross-national comparative study on adolescent students. As such, the findings here provide insight into peer perceptions of intellectually high-achieving students across five countries with varying levels of available cultural, educational, and episodic learning capital. The country comparative claim regarding educational and learning capital is still largely unsubstantiated for Australian, Peruvian, and Spanish students.

The constructed vignettes address the problem of incommensurability in this cross-national comparative study. However, the participants may have lacked motivation in evaluating the target student when completing the questionnaire. When students are motivated to maintain a positive self-evaluation or image, peer relationships to high performers have a significant effect on high performers. We anticipate strong, positive attitudes about individual group members if group membership is visible and interpersonally close to the target (Crockett, Losoff, & Petersen, 1984; Tesser & Campbell, 1982). The participants in this study were rather passive observers who were not directly involved in competition with the fictitious target.

The data collection was designed to assess an aspect of popularity related to degree of preference and social acceptance. It was not optimal in measuring the expanded concept of popularity, putting the reliability of the perceived popularity subscales into question. In coeval peer groups, the reciprocated social acceptance of high performers might differ according to social dominance (Prinstein, 2007). Additionally, high performers are not always the most

visible students in a classroom (Coleman & Cross, 2014). In stigmatized environments, for example, gifted students hide information about themselves (Cross, Coleman, & Terhaar-Yonkers, 2014).

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

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