

# Materialism and egocentrism in Chinese adolescents in Hong Kong: Perceptions of teachers

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## Abstract

While there are studies on materialism and egocentrism based on self-reports of adolescents, there are very few studies focusing on teachers' perceptions of materialism and egocentrism in their students and adolescents in general. In this study, teachers' perceptions (N = 568) of materialism and egocentrism in Chinese adolescents were examined. Findings showed that many teachers perceived that their students and adolescents in Hong Kong showed materialistic beliefs. A significant proportion of teachers also perceived that their students and adolescents in Hong Kong generally showed worrying signs of egocentrism. While background demographic factors (age, gender, religious orientation and teaching grades) were not related to adolescent materialism, teachers' perceptions of their students' egocentrism were related to teaching grades and teachers' perceptions of egocentrism in adolescents in general were related to age, gender, and teaching grades.

**Keywords:** Chinese adolescents, materialism, egocentrism, high school students, socio-demographic correlates

## Introduction

Adolescence is an important stage where young people develop beliefs and values about themselves and the world. With cognitive maturation and enlargement of the social circle, adolescents form views about themselves, including their own characteristics and unique features. Besides, adolescents also form views about the world, such as ideological beliefs and philosophies. Amongst the beliefs and values formed by adolescents, there are two important areas to be considered. The first belief is on how adolescents view material possession and money (i.e., materialistic beliefs). With more contact with the world (e.g., buying lunch at school and using money at their own discretion) and peer influence (e.g., it is trendy to possess a pair of limited edition of

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sports shoes), adolescents begin to form beliefs about material possession and money. Obviously, the development of healthy attitude to material possession is important for adolescent thriving behavior. If adolescents hold unhealthy values, they may engage in delinquency behavior such as theft, shoplifting, and compensated dating to earn quick money in order to get material possession.

Shek, Ma and Lin (1) showed that a high level of materialism was related to a higher level of egocentrism but lower levels of morality, spirituality, and empathy. In different youth development models, particularly in the field of positive youth development (2), it is commonly emphasized that “being” (i.e., non-material values) such as character strengths are important to adolescent development. For example, in the developmental assets proposed by the Search Institute, the developmental assets focus on values and virtues which are non-materialistic in nature (3). In the 5C/6C models on youth development (4, 5), competence, confidence, character, compassion, connection, and contribution are non-materialistic nature. In the existential literature, the theory proposed by Victor Frankl (6) does not focus on “will to sex and aggression” and “will to power”; rather, it focuses on “will to life meaning” which is non-materialistic in nature. In fact, materialism is a by-product of Capitalism which focuses on the importance of material possession and consumption (7).

Another adolescent belief is adolescents’ thoughts and experiences when comparing to others. If one always over-estimates one’s ability and devaluates others’ views, one would develop a “superiority complex.” On the other hand, if one always under-estimates one’s belief and over-emphasizes others’ views, one would develop “inferiority complex.” Furthermore, if one looks at things only from his or her own perspective without considering others’ views, it is a self-centered orientation. On the other hand, if one looks at things from others’ perspectives, it is other-centered orientation. Cognitively speaking, children tend to look at things from one’s perspective without making reference to others’ perspectives. According to Piaget (8), children’s thinking style in late childhood is egocentric. However, with cognitive maturation, adolescents gradually know how to look at the world from one’s perspective as well as others’

perspectives, although they initially hold distorted views about oneself and others, such as viewing one’s thoughts are superior than others (9-11). According to Shek, Yu and Siu (12), there are two dimensions of egocentrism, including belief that one’s thought is better than others (i.e., self-conceit) and not considering the views and experiences of other people (i.e., disregard of others). Developmentally speaking, egocentrism is a normal stage in adolescent development; however, if adolescents cannot grow out of it, it would then be developmental problems to the adolescents.

With widening of the social networks during adolescents, self-centered orientation would impair interpersonal relationships. Besides, adolescent egocentrism would lead to engagement in risky behavior because adolescents believe they are exceptional. Shek, Yu, and Siu (12) showed that adolescent egocentrism was negatively related to spirituality and empathy. Conceptually, with reference to different youth development models, it is commonly asserted that taking others’ perspective and sensitive to others’ feelings are important for adolescent healthy development. Positive values and social competences are emphasized in Benson’s developmental assets model, (3). In the 5C/6C model, it is argued that caring and compassion (i.e., consideration of others) are important. In the social-emotional perspective (e.g., CASEL’s model), understanding of others’ views is an important competence to be acquired by adolescents. In the character strengths perspective (13-15), social intelligence and modesty are emphasized. In the positive youth development models (16), the importance of considering others’ views and experiences is highlighted.

The major drawback of the existing studies on adolescent materialism and egocentrism is that the existing studies are primarily based on self-reports of adolescents. There are several limitations of reliance on the self-report data collected from adolescents. First, it can be argued that adolescents may not have an accurate understanding of themselves because of their emerging cognitive maturity. Second, adolescents may have biases in viewing oneself, particularly because of social desirability effects such as “beauty of beholder side.” Third, as self-evaluation of one’s weaknesses is painful, self-report of

adolescents may not be accurate. Hence, it is methodologically desirable to include the perspectives of other stakeholders (i.e., teachers) to look at the related issues. The engagement of teachers is helpful for several reasons. First, as teachers spend much time with students, they have a better understanding of their students and young people in Hong Kong. Second, through intensive interaction with students, teachers would have a good understanding of the students. Third, with professional teacher training, teachers would have a more informed judgment about the situation of their students and adolescents. With reference to Hong Kong, studies on adolescent materialism are few (7, 17, 18). In the study conducted by Shek and colleagues (7), the finding showed that high school students perceived that adolescents showed worrying signs in materialism and egocentrism. Obviously, it would be illuminating if the views of teachers could be collected.

As there are few studies on the moral character, materialism, egocentrism, and psychosocial development in high school students in Hong Kong, colleagues at The Hong Kong Polytechnic University conducted several studies based on perspectives of adolescents, teachers, and parents (18-22). In this paper, we used the data collected based on teachers' perceptions of materialism and egocentrism of Chinese adolescents (19) with several objectives. First, we examined the perceptions of teachers' materialism and egocentrism of high school students and adolescents in Hong Kong. Second, we examined whether materialism and egocentrism in high school students and adolescent in general are different based on the perspective of teachers. Based on the social psychology literature, it was hypothesized that teachers would see their students to be less materialistic and egocentric as compared to adolescents in the general adolescent population. Third, as there are not many studies on the psychosocial correlates of teachers' perceptions of materialism and egocentrism in their students and adolescents in Hong Kong, we tested several tentative hypotheses: a) as older people tend to be more conservative, older teachers would see their students or adolescents in general to be more materialistic or egocentric; b) as females focus more on affective relationships and they are more empathetic (i.e., less

egocentric), female teachers would see their students or adolescents to be more materialistic or egocentric as compared to males teachers; c) compared with those without religion, teachers with religious beliefs would see their students and Hong Kong adolescents to be more materialistic or egocentric; and d) as those who teach both junior and senior high school students would have better understanding of high school students, they would see their students be more egocentric.

## Methods

To understand the views of teachers on adolescent materialism and egocentrism, teachers from 11 secondary schools in Hong Kong were recruited to participate in this study (N = 568), with 345 female teachers (60.7%) and 216 male teachers (38%). The sample could be categorized into five age groups: 25 years or below (n = 36, 6.3%), 26-35 years (n = 162, 28.5%), 36-45 years (n = 153, 26.9%), 46-55 years (n = 160, 28.2%), and 56 years or above (n = 49, 8.2%). A total of 464 teachers were with teaching experiences of more than six years. Consent from the teachers was obtained before data collection.

Prior to data collection, this study was reviewed and approved by the University Institutional Review Board at a public university in Hong Kong. After getting approval from the school principals, data were collected from the teachers. In each school, we distributed the questionnaires to the school coordinator who helped to collect the completed questionnaires in sealed envelopes without revealing the identity of the respondents.

## Instruments

*Teachers' perception of adolescent materialism:* To assess teachers' perceptions of adolescent materialism, we modified the abridged 5-item Chinese Adolescent Materialism Scale (1) which was originally developed to assess materialistic beliefs in Chinese adolescents. These items included: a) "my students believe that making money is more important than any other things"; b) "My students believe that

money is everything”; c) “My students believe that the rich can get respect from others”; d) “My students would abandon some principles for the sake of money”; and e) “My students believe that the amount of money one makes is a fundamental indicator of one’s success.” A 5-point Likert scale was used, including “strongly disagree,” “slightly disagree,” “neutral,” “slightly agree,” and “strongly agree,” with higher scores indicating higher levels of materialism.

To understand teachers’ perceptions of materialism in Hong Kong adolescents in general, the same five items were used with changing perspectives. The items included: a) “Hong Kong adolescents think that making money is more important than any other things”; b) “Hong Kong adolescents believe that money is everything”; c) “Hong Kong adolescents think that the rich can get respect from others”; d) “Hong Kong adolescents would abandon some principles for the sake of money”; and e) “Hong Kong adolescents believe that the amount of money one makes is a fundamental indicator of one’s success.” We used a five-point Likert scale which higher materialism reflected by higher scores.

*Teachers’ perception of adolescent egocentrism:* To assess teachers’ perceptions of egocentrism in their students, we modified the abridged 5-item Chinese Adolescent Egocentrism Scale (19) which was originally developed to assess egocentrism in Chinese adolescents based on the perspective of adolescents (12). These items included: a) “My students regard their experiences are more important than those of others”; b) “My students think that their interests are more important than those of others”; c) “My students always find justifications for their behavior”; d) “most of the time, my students think that other people’s criticisms about them do not make sense”; e) “even if they make other people are unhappy, my students are true to their experience.” For each item, there are five response options, including “strongly disagree,” “slightly disagree,” “neutral,” “slightly agree,” and “strongly agree,” with higher scores showing higher levels of egocentrism.

For teachers’ perceptions of adolescent egocentrism, we modified the abridged 5-item Chinese Adolescent Egocentrism Scale (19) which

was originally developed to assess egocentrism in Chinese adolescents (12). These items included: a) “Hong Kong adolescents regard their experiences are more important than those of others”; b) “Hong Kong adolescents think that their interests are more important than those of others”; c) “Hong Kong adolescents always find justifications for their behavior”; d) “most of the time, Hong Kong adolescents think that other people’s criticisms about them do not make sense”; e) “even if they make other people are unhappy, Hong Kong adolescents are true to their experience.” For each item, there are five response options. A higher total score means a higher level of perceived egocentrism in Hong Kong adolescents in general.

### *Data analyses*

The Statistical Package for Social Sciences Version 25 (IBM Corp., Somers, NY, USA) was used to perform the related analyses. First, we examined percentage findings to look at the profiles of responses of teachers to the modified version of the Chinese Adolescent Materialism Scale as well as the modified Chinese Adolescent Egocentrism Scale. Besides, teachers’ perceptions of materialistic beliefs and egocentric beliefs amongst the general adolescent population in Hong Kong were examined. Second, respondents’ views of their teachers’ perceptions of materialistic and egocentric beliefs were compared with their perceptions of the materialistic and egocentric beliefs of Hong Kong adolescents in general, respectively. For the socio-demographic correlates, Pearson correlation analysis and regression analyses were performed.

## **Results**

The descriptive profiles based on percentage findings on teachers’ perceptions of materialism in students, materialism in Hong Kong adolescents, egocentrism in students, and egocentrism in Hong Kong adolescents are presented in Table 1 to Table 4. First, significant proportions of teachers perceived their students and Hong Kong adolescents showed signs of materialism. For example, 51.1%

and 69.9% of the teachers regarded their students and Hong Kong adolescents believed that “making money is more important than any other things,” respectively. Second, more than half of the teachers perceived their students and Hong Kong adolescents in general showed signs of egocentrism. For example, the teachers believe that “their feelings

are more important than the feelings of other people” (83.8% and 89.9%, respectively). Third, teachers generally perceived that materialism in their own students was lower than that in Hong Kong adolescents. Fourth, teacher perceived egocentrism in their own students to be lower than that in Hong Kong adolescents.

**Table 1. Teacher perception of materialistic beliefs in their own students**

Items	1	2	1+2	3	4	5	4+5	Mean	n
	n	n	n	n	n	n	n		
	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
1. My students believe making money is more important than any other things.	14 (2.5%)	140 (24.7%)	154 (27.2%)	123 (21.7%)	254 (44.8%)	36 (6.3%)	290 (51.1%)	3.28	567
2. My students believe “Money is everything”.	45 (7.9%)	173 (30.5%)	218 (38.4%)	163 (28.7%)	164 (28.9%)	22 (3.9%)	186 (32.8%)	2.90	567
3. My students believe “No money, no dignity”.	15 (2.7%)	144 (25.4%)	159 (28.1%)	153 (27.0%)	221 (39.0%)	33 (5.8%)	254 (44.8%)	3.20	566
4. My students believe they would abandon some principles for the sake of money.	52 (9.2%)	179 (31.8%)	231 (41.0%)	192 (34.1%)	134 (23.8%)	6 (1.1%)	140 (24.9%)	2.76	563
5. My students believe “The amount of money one makes is a fundamental indicator of one’s “success”.	17 (3.0%)	128 (22.6%)	145 (25.6%)	169 (29.8%)	222 (39.2%)	31 (5.5%)	253 (44.7%)	3.22	567

**Table 2. Teacher perception of materialistic beliefs in HK adolescents**

Items	1	2	1+2	3	4	5	4+5	Mean	n
	n	n	n	n	n	n	n		
	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
1. Adolescents in HK believe making money is more important than any other things.	4 (0.7%)	58 (10.2%)	62 (10.9%)	109 (19.2%)	336 (59.3%)	60 (10.6%)	396 (69.9%)	3.69	567
2. Adolescents in HK believe “Money is everything”.	13 (2.3%)	74 (13.1%)	87 (15.4%)	160 (28.2%)	272 (48.0%)	48 (8.5%)	320 (56.5%)	3.47	567
3. Adolescents in HK believe “No money, no dignity”.	4 (0.7%)	60 (10.6%)	64 (11.3%)	107 (18.9%)	331 (58.4%)	65 (11.5%)	396 (69.9%)	3.69	567
4. Adolescents in HK believe they would abandon some principles for the sake of money.	10 (1.8%)	82 (14.5%)	92 (16.3%)	165 (29.1%)	276 (48.7%)	34 (6.0%)	310 (54.7%)	3.43	567
5. Adolescents in HK believe “The amount of money one makes is a fundamental indicator of one’s “success”.	4 (0.7%)	47 (8.3%)	51 (9.0%)	119 (21.0%)	321 (56.6%)	76 (13.4%)	397 (70.0%)	3.74	567

**Table 3. Teacher perception of egocentrism in their own students**

Items	1	2	1+2	3	4	5	4+5	Mean	n
	n	n	n	n	n	n	n		
	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
1. My students believe their feelings are more important than the feelings of other people.	1 (0.2%)	20 (3.5%)	21 (3.7%)	71 (12.5%)	298 (52.6%)	177 (31.2%)	475 (83.8%)	4.11	567
2. My students believe their own benefits are more important than the benefits of other people.	4 (0.7%)	19 (3.4%)	23 (4.1%)	107 (18.9%)	335 (59.2%)	101 (17.8%)	436 (77.0%)	3.90	566
3. My students believe that no matter what happens, they can always justify their behaviors.	3 (0.5%)	19 (3.4%)	22 (3.9%)	83 (14.6%)	291 (51.3%)	171 (30.2%)	462 (81.5%)	4.07	567
4. My students believe the criticisms on them are usually groundless.	6 (1.1%)	108 (19.1%)	114 (20.2%)	188 (33.2%)	231 (40.8%)	33 (5.8%)	264 (46.6%)	3.31	566
5. My students are loyal to their own feelings even if this may upset other people.	1 (0.2%)	52 (9.2%)	53 (9.4%)	178 (31.4%)	270 (47.6%)	66 (11.6%)	336 (59.2%)	3.61	567

**Table 4. Teacher perception of egocentrism in HK adolescents**

Items	1	2	1+2	3	4	5	4+5	Mean	n
	n	n	n	n	n	n	n		
	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
1. Adolescents in HK believe their feelings are more important than the feelings of other people.	2 (0.4%)	10 (1.8%)	12 (2.2%)	45 (8.0%)	351 (62.0%)	158 (27.9%)	509 (89.9%)	4.15	566
2. Adolescents in HK believe their own benefits are more important than the benefits of other people.	4 (0.7%)	11 (1.9%)	15 (2.6%)	56 (9.9%)	364 (64.3%)	131 (23.1%)	495 (87.4%)	4.07	566
3. Adolescents in HK believe that no matter what happens, they can always justify their behaviors.	2 (0.4%)	8 (1.4%)	10 (1.8%)	63 (11.2%)	337 (59.6%)	155 (27.4%)	492 (87.0%)	4.12	565
4. Adolescents in HK believe the criticisms on them are usually groundless.	4 (0.7%)	37 (6.5%)	41 (7.2%)	145 (25.6%)	318 (56.2%)	62 (11.0%)	380 (67.2%)	3.70	566
5. Adolescents in HK are loyal to their own feelings even if this may upset other people.	2 (0.4%)	16 (2.8%)	18 (3.2%)	92 (16.3%)	348 (61.5%)	108 (19.1%)	456 (80.6%)	3.96	566

MANOVAs and ANOVAs were further performed to look at the third and fourth observations. Results of the one-way MANOVA analyses showed that there were statistically significant differences in materialistic beliefs between students and Hong Kong adolescents perceived by teachers,  $F(5, 1123) = 33.450$ ,  $p < 0.001$ , partial eta squared = 0.130. For

univariate effects, there were significant differences between teacher perceptions of students and teacher perceptions of Hong Kong adolescents at the item score ( $p < 0.001$  in all items) and composite score ( $p < 0.001$  in all items) levels (see Table 5). Similarly, one-way MANOVA analyses showed that teachers perceived significantly difference between egocentrism in their

students and Hong Kong adolescents,  $F(5, 1124) = 21.379$ ,  $p < 0.001$ , partial eta squared = 0.087. For univariate effects, teacher perceptions of students and Hong Kong adolescents were statistically significantly different over Items 2, 4, and 5 ( $p < 0.001$ ) and the composite score ( $p < 0.001$ ) (see Table 6).

Pearson correlation analyses showed that materialism in students and materialism in Hong

Kong adolescents were not correlated with age, gender, religion, and teaching grade. In contrast, teachers' perceptions of egocentrism in their children were related to teaching grade whereas perceived egocentrism in Hong Kong adolescents were correlated with age, gender, and teaching grade (see Table 7).

**Table 5. Differences in materialistic beliefs between students and HK adolescents perceived by teachers (N = 562 for teacher's perception of students, N = 567 for teacher's perception of Hong Kong adolescents)**

	Students	HK Adolescents	F	partial $\eta^2$
1. My students/HK adolescents believe that...	<i>M (SD)</i>	<i>M (SD)</i>	33.450***^	0.13
2. Making money is more important than any other things	3.28(0.99)	3.69(0.82)	57.662***	0.049
3. Money is everything.	2.91(1.03)	3.47(0.91)	96.525***	0.079
4. No money, no dignity.	3.20(0.98)	3.69(0.84)	84.224***	0.070
5. They would abandon some principles for the sake of money.	2.76(0.95)	3.43(0.87)	151.072***	0.118
6. The amount of money one makes is a fundamental indicator of one's "success".	3.22(0.96)	3.74(0.82)	96.327***	0.079
Composite Score	3.07(0.79)	3.60(0.71)	141.024***	0.111

Note.\*\*\*p <.001; ^Adjusted Bonferroni value = .008.

**Table 6. Differences in egocentrism between students and HK adolescents perceived by teachers (N = 565 for teacher's perception of students, N = 565 for teacher's perception of Hong Kong adolescents)**

	Students	HK Adolescents	F	partial $\eta^2$
1. My students/HK adolescents believe that...	<i>M (SD)</i>	<i>M (SD)</i>	21.379***^	0.087
2. Their feelings are more important than the feelings of other people.	4.11(0.77)	4.15(0.66)	0.996	0.001
3. Their own benefits are more important than the benefits of other people.	3.90(0.75)	4.07(0.68)	15.925***	0.014
4. Not matter what happens, they can always justify their behaviors.	4.07(0.79)	4.12(0.68)	1.369	0.001
5. The criticisms on them are usually groundless.	3.31(0.88)	3.70(0.78)	61.380***	0.052
6. They are loyal to their own feelings even if this may upset other people.	3.61(0.81)	3.96(0.71)	59.122***	0.050
Composite Score	3.80(0.62)	4.00(0.56)	31.988***	0.028

Note.\*\*\*p <.001; ^Adjusted Bonferroni value = .008.

**Table 7. Correlation among variables**

Variables	1	2	3	4
1. Age <sup>a</sup>	-			
2. Gender <sup>b</sup>	-0.117**	-		
3. Religion <sup>c</sup>	-0.107**	0.000	-	
4. Teaching grade <sup>d</sup>	0.031	-0.041	-0.057	-
5. Materialism in students	-0.023	0.048	0.048	0.020
6. Materialism in HK adolescents	-0.045	-0.005	0.020	0.066
7. Egocentrism in students	-0.028	0.062	0.011	0.090*
8. Egocentrism in HK adolescents	0.125**	0.085*	-0.036	0.147***

Note. \*p <.05, \*\*p <.01, \*\*\*p <.001;

<sup>a</sup>Aged 25 or below = 1, Aged 26-35 = 2, Aged 36-45 = 3, Aged 46-55 = 4; Aged 56 or above = 5;

<sup>b</sup>Male = 1, Female = 2; <sup>c</sup>Having religion = 1, Having no religion = 2;

<sup>d</sup>Teaching junior forms (S1-S3) = 1, Teaching senior forms (S4-S6) = 2, Teaching both junior and senior forms (S1-S6) = 3.

**Table 8. Predicting effects of demographic factors on teacher perceived materialism in their students**

Predictors	Materialism in Students			
	$\beta$	$t$	$F$	$R^2$
Age <sup>a</sup>	-0.026	-0.604	0.365	0.001
Gender <sup>b</sup>	0.049	1.149	2.320	0.002
Religion <sup>c</sup>	0.051	1.186	1.407	0.003
Teaching Grade <sup>d</sup>	0.044	0.336	1.113	0.0002

Note. <sup>a</sup>Aged 25 or below = 1, Aged 26-35 = 2, Aged 36-45 = 3, Aged 46-55 = 4; Aged 56 or above = 5;

<sup>b</sup>Male = 1, Female = 2; <sup>c</sup>Having religion = 1, Having no religion = 2;

<sup>d</sup>Teaching junior forms (S1-S3) = 1, Teaching senior forms (S4-S6) = 2, Teaching both junior and senior forms (S1-S6) = 3

**Table 9. Predicting effects of demographic factors on teacher perceived materialism in HK adolescents**

Predictors	Materialism in HK Adolescents			
	$\beta$	$t$	$F$	$R^2$
Age <sup>a</sup>	-0.056	-1.318	1.738	0.003
Gender <sup>b</sup>	-0.003	-0.080	0.006	0.000011
Religion <sup>c</sup>	0.012	0.274	0.075	0.000137
Teaching Grade <sup>d</sup>	0.065	1.524	2.323	0.004

Note. <sup>a</sup>Aged 25 or below = 1, Aged 26-35 = 2, Aged 36-45 = 3, Aged 46-55 = 4; Aged 56 or above = 5;

<sup>b</sup>Male = 1, Female = 2; <sup>c</sup>Having religion = 1, Having no religion = 2;

<sup>d</sup>Teaching junior forms (S1-S3) = 1, Teaching senior forms (S4-S6) = 2, Teaching both junior and senior forms (S1-S6) = 3

**Table 10. Predicting effects of demographic factors on teacher perceived egocentrism in their students**

Predictors	Egocentrism in Students			
	$\beta$	$t$	$F$	$R^2$
Age <sup>a</sup>	-0.037	-0.869	0.755	0.001
Gender <sup>b</sup>	0.066	1.570	2.466	0.004
Religion <sup>c</sup>	0.012	0.270	0.073	0.00013
Teaching Grade <sup>d</sup>	0.091	2.138*	4.527*	0.008

Note. \* $p < .05$ ;

<sup>a</sup>Aged 25 or below = 1, Aged 26-35 = 2, Aged 36-45 = 3, Aged 46-55 = 4; Aged 56 or above = 5;

<sup>b</sup>Male = 1, Female = 2; <sup>c</sup>Having religion = 1, Having no religion = 2;

<sup>d</sup>Teaching junior forms (S1-S3) = 1, Teaching senior forms (S4-S6) = 2, Teaching both junior and senior forms (S1-S6) = 3.

**Table 11. Predicting effects of demographic factors on teacher perceived egocentrism in Hong Kong adolescents**

Predictors	Egocentrism in HK Adolescents			
	$\beta$	$t$	$F$	$R^2$
Age <sup>a</sup>	0.112	2.653**	7.039**	0.012
Gender <sup>b</sup>	0.089	2.117*	4.482*	0.008
Religion <sup>c</sup>	-0.033	-0.768	0.590	0.001
Teaching Grade <sup>d</sup>	0.149	3.513***	12.344***	0.022

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ ;

<sup>a</sup>Aged 25 or below = 1, Aged 26-35 = 2, Aged 36-45 = 3, Aged 46-55 = 4; Aged 56 or above = 5;

<sup>b</sup>Male = 1, Female = 2; <sup>c</sup>Having religion = 1, Having no religion = 2; <sup>d</sup>Teaching junior forms (S1-S3) = 1, Teaching senior forms (S4-S6) = 2, Teaching both junior and senior forms (S1-S6) = 3.

Regression analyses were conducted for each predictor separately. Results showed that there were no prediction effects of age, gender, religion, and teaching grade on materialism in students and materialism in Hong Kong adolescents (Table 8 and 9). Egocentrism in students was only predicted

by teaching grade ( $F(1, 545) = 4.527, p < 0.05$ ) but not by other predictors (Table 10). Egocentrism in Hong Kong adolescents was predicted by age ( $F(1, 558) = 2.154, p < 0.01$ ), gender ( $F(1, 559) = 4.482, p > 0.05$ ) and teaching grade ( $F(1, 545) = 12.344, p < 0.001$ ) but not religion (Table 11).

## **Discussion**

Although adolescent materialism and egocentrism are important aspects of adolescent development, few Chinese studies have been conducted. In particular, no study has been conducted to look at the related issues from the perspective of significant-others of adolescents, particularly teachers. Against this background, we conducted this study to examine teachers' perceptions of materialism as well as egocentrism in their students and adolescents in Hong Kong. We also compared the perceived differences between students taught by the respondents and Hong Kong adolescents in general on materialism and egocentrism. Furthermore, as there are very few studies on the socio-demographic correlates of perceptions of materialistic and egocentric beliefs in Hong Kong high school students and adolescents in general, we explored several tentative hypotheses in this study. Because there are very few related studies in the field, this is a pioneer attempt in studying adolescent materialism and egocentrism.

Based on the teachers' responses to the modified version of the Chinese Adolescent Materialism Scale, we observed several phenomena. First, around 45% of the teachers perceived their students believe that "no money, no dignity." Similarly, around 45% of the teachers perceived their students believe that "the amount of money one makes is a fundamental indicator of one's success." Second, more than half of the teachers perceived that adolescents in Hong Kong hold materialistic beliefs: around 70% of the teachers perceived that "adolescents in HK believe making money is more important than any other things." Similarly, around 70% of the teachers perceived that Hong Kong adolescents equated money with dignity and regarded money as the criteria of success. These findings are worrying because the over-emphasis on material possession would be detrimental to adolescent development. In future, we should further examine how materialistic beliefs influence adolescent development, particularly on the development of character strengths and virtues.

For adolescent egocentrism, the picture is even more worrying. More than two-third of the teachers perceived that their students are egocentric: around 84% of the teachers perceived that their students regarded their feelings to be more important than

those of other people; 77% of the teachers perceived that their students regarded their own benefits are more important than the benefits of other people. Furthermore, most of the teachers perceived that adolescents in Hong Kong were egocentric: around 87% regarded that their benefits are more important than those of others; around 87% of the respondents perceived that adolescents always have justifications for their behavior. These findings suggest that adolescents should be helped to balance the emphasis on superiority of one's views and feelings while respecting the views and experiences of other people.

Regarding perceptions of teachers regarding materialism and egocentrism in their students and Hong Kong adolescents, the findings showed that teachers generally had relatively positive perceptions of their students as compared to adolescents in general – students were seen as less materialistic and less egocentric as compared to adolescents in Hong Kong. This observation is interesting and it is in line with the previous findings that adolescents saw themselves as less materialistic than did adolescents in general (23).

Several observations can be highlighted from the findings on the socio-demographic correlates of perceived materialism and egocentrism beliefs in Chinese adolescents. First, socio-demographic correlates were not related to perceived materialism and egocentrism of the respondents' students and Hong Kong adolescents in general. Second, with more teaching exposure (i.e., teaching more grades), teachers tended to perceive that their students were more egocentric. One possible explanation is that teachers might have a more in-depth understanding of their students when they teach junior and senior form students. Third, age, gender, and teaching grades were related to teachers' perceptions of egocentrism of adolescents in Hong Kong. The positive relationship between age and perceived egocentrism is consistent with the conjecture that people with older age are more conservative and they are more critical of young people. Regarding gender, as females attach more emphasis on interpersonal relationship, they would also be more critical of egocentric behavior in adolescents as compared to males. Concerning grade teaching, we can interpret that those with more teaching exposure would understand their students

better, hence having a higher level of perceived egocentrism amongst Hong Kong adolescents. However, as the present hypotheses are tentative in nature, there is a need to further refine them in future studies.

Although the present study is a pioneer study in the field, there are several limitations. First, as the sample was not randomly selected, we should be cautious to examine the generalizability of the findings. Further replication of the findings based on random samples is in order. Second, as only abridged scales (i.e., five items) were employed, it would be theoretically and empirically enriching if longer scales could be used. Third, regarding the socio-demographic of adolescent materialism and egocentrism, the findings are tentative and inconclusive. Hence, there is a need to refine the related hypotheses and theoretical bases. Finally, the origin of materialism and egocentrism in adolescents was not covered in the present study. In the area of materialism, there are studies suggesting that socialization within the family context plays an important role in the development of different motives for happiness in adolescents (24-28). Hence, it would be exciting to explore how family socialization contributes to the development of materialism and egocentrism in adolescents further.

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## Ethical compliance

The authors have stated all possible conflicts of interest within this work. The authors have stated all sources of funding for this work. If this work involved human participants, informed consent was received from each individual. If this work involved human participants, it was conducted in accordance with the 1964 Declaration of Helsinki. If this work involved experiments with humans or animals, it was conducted in accordance with the related institutions' research ethics guidelines.

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