The Psychological Mechanisms of Self-Evaluation Maintenance and Relationship Maintenance Strategies in Adolescent Cognition

青年期における自己評価維持と関係性維持の心理機制

A Dissertation Presented to the Graduate School of Arts and Sciences, International Christian University, for the Degree of Doctor of Philosophy

国際基督教大学 大学院
アーツ・サイエンス研究科提出博士論文

April 6, 2018
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NATHAN PIERCE
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Members of Evaluation Committee
審査委員会メンバー

主査 Isozaki, Mikitoshi Chief Examiner	磯崎 三喜年 Professor	承認署名 Signature _____
副査 Morishima, Yasunori Examiner	森島 泰則 Professor	承認署名 Signature _____
副査 Nishimura, Kaoru Examiner	西村 馨 Professor	承認署名 Signature _____

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Nathan Pierce
April 6, 2018

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Summary

Based on the theoretical framework of the Self-Evaluation Maintenance (SEM) model (Tesser, 1988) and the newly modified Self-Evaluation and Relationship Maintenance (SERM) model (Isozaki, 2012), the present dissertation investigated the SERM model's application on Japanese and Singaporean adolescents. Similarities and differences of strategy choice when maintaining a positive self-evaluation were examined in both cultures.

As the SEM model explains, individuals in a relationship each aim to keep his or herself feeling good psychologically through comparison and reflection strategies in contrast to the other person. The comparison process occurs on high self-relevant domains, as the self avoids threatening comparisons with close others and chooses direct self-enhancement in order to maintain a positive self. This occurs when the individual perceives the self to be better than close others, without evaluating actual ability at the highly self-relevant domain in question. The reflection process occurs on low self-relevant domains as the self basks in the reflected glory of the others splendid performance. The reflection process supports the relationship by perceiving the close other to be better than the self at the low self-relevant domain in question. This reflection leads to individuals feeling enhanced by upward comparisons and at a loss by downward comparisons.

The SERM model adds a very important and needed part to the SEM model by introducing a relationship maintenance strategy called the secondary reflection process, which also occurs on high self-relevant domains as does the comparison process, but in this process, the self compromises direct self-enhancement or does not avoid comparison in order to support the relationship. The individual perceives the close other to be better

than the self at the non-self-threatening, yet highly self-relevant domain, in question. Unlike the SEM model, the pan-cultural SERM model is able to explain how individuals maintain a positive self in comparison to others regardless of culture or personal character.

While evidence of the SEM model's comparison and reflection processes have been well documented on high and low self-relevant domains, as was also supported in this research, no such research has investigated where and when the strategy of promoting a relationship over the self by adolescents, on highly self-relevant domains, occurs on a wide range of school and private life domains. This meaning, little to nothing was known on the employment of the SERM model's secondary reflection process by high school students and on what high self-relevant domains it is significantly applied to. The SERM model posits individuals need to maintain or increase a positive self-evaluation, through not only the comparison process, and reflection process, but also the secondary reflection process. This dissertation investigates these unexplored questions in Japan and Singapore and notes on the cultural differences found.

Unique data were collected on the perceived performance of the self, best friend, and 2nd best friend, on 29 high school and private life, adolescent relevant domains. The participants consisted of 416 high school students in Tokyo and 300 high school (secondary school) students in Singapore. All participants were age 16 to 18, an age which has not been sampled or investigated for SERM studies. With kind permission of the schools, quantitative data was collected in each culture by questionnaires in the classrooms. In order to better understand the dynamics of self-evaluation and relationship maintenance, participants were asked to rate various high and low self-relevant domains for ability at, or possession of the domain for the self, best friend, and 2nd best friend, on a scale of 1 to 7.

Adolescents in both cultures significantly employed avoiding comparisons when maintaining a positive self on the highly self-relevant domains of: Important Free-Time Activity, Important Club/Team Activity, Positive Self-Identity Trait, Contribute to Friends' Circle, and Area of Great Pride. Singaporean participants also significantly rated Fashion, Cooperation, Athletic Ability, and Special Point in School with the comparison process strategy. Japanese participants also significantly avoided comparisons on Most Important School Subject. Further evidence of the SEM model was found as adolescents in both cultures significantly employed the reflection process strategy in maintaining a positive self by association with the close other on low self-relevant domains.

Clear evidence of the SERM model's relationship maintenance strategy, the secondary reflection process, was obtained. Adolescents in both cultures significantly choose the secondary reflection process strategy in maintaining a positive self through maintaining close relationships on the highly self-relevant domains of: Overall Ability in School, Wealth, Attractiveness, Ability to get a GF/BF, A Good Friend, Good Mood, and A Good Personality. Japanese participants also significantly rated Fashion, Cooperation, Humor, Rebelliousness, and Special Point in School domains with the secondary reflection process strategy. It is posited that these less objective or less clearly measurable domains are non-threatening high self-relevant domains and can be allotted to relationship maintenance.

Adolescents in both cultures did not commonly employ the comparison process, secondary reflection process, or reflection process strategy on the highly self-relevant rated domains of: Most Desired Identity Trait, Positivity, Health, Accomplish Goals in Life, Family Background, Saving Money, Good Family Relations, and Morals. Singaporean participants also did not commonly employ the comparison process, secondary reflection

process, or reflection process strategy on the highly self-relevant domains of: Humor, Rebelliousness, and Best Friendship Characteristic.

The purpose of this study was to examine the application of the comparison process and secondary reflection process on a variety of previously unexplored high self-relevant domains, cultures, and a new age group of 16 to 18 year olds to better explain adolescent cognition and behavior. This study provides evidence of the SERM model and its relationship maintenance strategies in Japan and Singapore. It also suggests how adolescents attempt to maintain a balance between the self-evaluation maintenance and relationship maintenance strategies on various self-relevant domains in order to maintain his or her mental health in society. These three main unconscious cognitive strategies used when maintaining a positive self-evaluation are posited to be employed by all individuals and are constantly changing and fluctuating to meet present situational and social needs.

要約

本研究は、自己評価維持（Self-Evaluation Maintenance: SEM）モデル（Tesser, 1988）およびそれを発展させた自己評価と関係性維持（Self-Evaluation and Relationship Maintenance: SERM）モデル（Isozaki, 2012）に基づき、日本とシンガポールの青少年に対するSERMモデルの適用を検討した。日本とシンガポールの両方の文化において、ポジティブな自己評価を維持する際の方略の類似点と相違点を検討した。データは、学校および私生活における、青年期の自己と関連した29の領域について、自己、親友、および2番目の親友それぞれのパフォーマンスについての認知（主観的な評価）を分析した。SERMモデルは、個人が、動的な比較過程の回避と、二次的な反映過程、および反映過程を通じて、ポジティブな自己評価を維持または増加させることを試みると仮定する。

比較過程は、自己と関与度の高い領域で生起し、人は、肯定的な自己を維持するために、自己が心理的に近い他者との比較を避け、自己高揚を図ろうとする。これは、自己と関与度の高い領域で、実際の能力評価とは別に、個人が自分を心理的に近い他者よりも優れていると知覚するときに生起する。二次的な反映過程は自己にとって関与度の高い領域において、他者との関係を維持するために、心理的に近い他者が自己よりも優れていると知覚することで，直接的な自己高揚を抑え、他者との実際の比較を避けようとして生起する。反映過程は、自己と関与度の低い領域において、心理的に近い他者の栄光に浴することによって、自己評価を維持するために、他者が自己よりも優れていると知覚することによって起こる。

青少年において、SERMモデルの二次的な反映過程がどのように適用されるのか、また、自己にとって関与度が高い領域の中で最も一般的に適用される領域がどこかについては、ほとんどわかっていない。自己と関与度の高い、または低い領域におけるSEMモデルの比較過程と反映過程については、研究が蓄積されている。しかし、青年期の自己と関与度の高い学校または私生活の多様な領域において、自己との関係を促進する方略がどういった領域でどのように生起するかにつ

いては、十分な検討がなされていない。そこで本論文は、この問いについて日本とシンガポールでの調査により検討を行なった。

参加者は、東京の高校生416人とシンガポールの高校生300人であった。参加者の年齢は、16〜18歳であった。それぞれの文化において、質問紙によってデータを収集した。自己評価と関係性維持のダイナミクスをよりよく理解するために、参加者は、様々な自己と関与度の高いまたは低い領域について、自己、親友、および第2の親友のパフォーマンス（能力、達成度）を7段階尺度で評価するよう求められた。

両方の文化において、参加者は、自己にとって関与度の高い領域のうち、重要なフリータイムの活動、重要なクラブ/チーム活動、ポジティブな自己同一性の特性、友人サークルへの貢献、自負心の領域、において有意に比較過程の回避が見られた。シンガポールの参加者は、ファッション、協力、運動能力、学校のスペシャル・ポイントにおいて有意に比較過程の回避を示した。また、日本の参加者は、最も重要な学校の科目において、比較過程の回避を示した。

両方の文化の参加者は、自己にとって関与度の高い領域のうち、学校での全体的な能力、裕福さ、魅力、ガールフレンド/ ボーイフレンド、良い友達を得る能力、良いムード、そして良い人格において、二次的な反映過程方略を用いていた。また、日本の参加者は、ファッション、協力、ユーモア、反抗、学校でのスペシャル・ポイントの領域で二次反映過程方略を用いていた。これらの領域は、自己と関与度の高い領域の中でも自己にとってそれほど脅威とはならないと考えられ、友人関係の維持に意を注いだと考えられる。

両方の文化の参加者は、自己にとって関与度の高い領域のうち、最も望ましいアイデンティティの特性、ポジティブさ、健康、人生の達成目標、家族的背景、お金の節約、家族との良い関係、道徳観において、比較過程、二次反映過程、または反映過程を用いない傾向が見られた。シンガポールの参加者はまた、自己にとって関与度の高い領域のうち、ユーモア、反抗、そして一番の親友の特徴の領域において、比較過程、二次的な反映過程、または反映過程の方略を概して用いなかった。

両方の文化の青年は、自己にとって関与度の低い領域において、ポジティブな自己を維持するために反映過程方略を有意に用いていた。

本研究の目的は、先行研究で検討されていない文化における、新たに16〜18歳の年齢群を対象に、多様な自己と関与度の高い領域における比較過程の回避と、二次的反映過程の生起を検討することによって、これまで明らかにされなかった青年期の認知および行動をよりよく説明することである。そして、本研究は、日本とシンガポールにおけるSERMモデルの妥当性とその関係性維持方略の証拠を新たに提供している。これらの結果は、青少年が、社会や学校におけるさまざまな自己と関わる領域において、SEMと関係性維持方略のバランスをとりつつ、自己と心理的に近い他者との関係を維持しようと腐心していることを示唆している。

Chapter 1

Introduction

Walking with a friend in the dark
is better than walking alone in the light.
(Helen Keller)

1.0. Introduction

This dissertation examines how adolescents maintain a positive self through self-evaluation and relationship/friendship maintenance. Following a discourse on adolescents the target, for readers unfamiliar with literature on the "self," self-evaluation, self-evaluation maintenance, relationship maintenance, and the self-evaluation and relationship maintenance model are succinctly covered in this introduction.

Adolescence is a period of personal development during which one attempts to establish one's self-identity, autonomy, and feelings of self-worth which include alteration of image, adaptation to more abstract intellectual abilities, accommodation of the environmental and social demands of becoming behaviorally mature, and internalization of a socially appropriate value system (Buckler, 1987; Ingersoll, 1989; Ladd, 2004; Rosenberg, 1965). Concerning adolescent interpersonal relationships and social adjustment, these transitions reflect a growing psychological and emotional independence from adults and an according dependence on peer relationships to establish and maintain positive perceptions of the self (Steinberg, 1990; Youniss & Smollar, 1985). However, this increase in reliance on peers for social support is linked with increasing pressure to attain social status and leaves adolescents vulnerable if the friendships ever collapse. Espelage,

Holt, and Henkel (2003) speculate this transition from parents to peers can cause stress that might promote bullying behavior as students attempt to establish their new social position.

Collins, Gleason, and Sesma (1997) describe adolescent autonomy as having behavioral, emotional, and value constructs. Individuals begin to regulate his or her own behavior and decision-making, de-idolize parents and authority figures, and develop his or her own system of morals (e.g., Smith, 1966). Perceived self-knowledge is posited to play an influential role in moral self-concept maintenance and moral regulatory processes (Christy, Seto, Schlegel, Vess, & Hicks, 2016).

As attempts at autonomy continue, adolescents realize that they have a lot in common with their peers who are also struggling for autonomy (Goossens, 2006). This experience may play a crucial factor in friendship maintenance between adolescents. Although adolescents seek autonomy, they need adults who will listen to them, appreciate and understand their perspectives, and then coach and motivate them to use available information or services to succeed in their self-relevant activities for their own health (Berndt, 1996; Hamburg, 1997). Without appropriate adult examples and role models in an adolescent's life, the negative influence of peers on various areas of personal and school life will be amplified.

Private and school life for most students in their adolescence is often a time for self-schema exploration, maintaining friendships, and for many, academic performance is highly self-relevant in shaping friendship choice and interest in a variety of school and extracurricular activities (e.g., Arnett, 2000; Rosenberg, 1965). High school students in any culture make many new choices and have a multitude of new experiences shaping his or her self-identity that can direct the course of the rest of their lives.

We now move on to the adolescent "self" in self-evaluation. Baumeister (1999) defined the self as, an individual's beliefs about who and what the self is, including

personal attributes, and abilities. Lewis (1990) suggested that the development of a concept of self has two aspects, the existential self, and the categorical self. The existential self is the basic sense of being separate and distinct from others. Children realize this as babies, for example, as he or she smiles and someone smiles back, or the child pushes a toy and sees it move. The categorical self, occurs after realizing that he or she exists, the child next becomes aware that he or she is also an object in the world and just as other objects, the self can too be put into categories such as age, gender, size or skill. The first categories children apply themselves to, are very concrete (e.g., gender, age, and favorite things). Throughout development, self-description begins to include references to internal psychological characteristics, social comparisons, and how other people see him or her (Lewis, 1990).

Self-evaluation refers to the continually fluctuating process of determining (evaluating) personal growth, ability, and progress in comparison to others (Tesser, 1988). Self-evaluation has its roots in self-esteem (Tesser, & Campbell, 1985). In the 1970's and 1980's a person's sense of overall personal value, or self-esteem, was extensively researched. From this research on how the self maintains self-esteem, self-evaluation was discovered. While self-esteem is seen as a personality trait, which is stable and enduring, self-evaluation is subject to fluctuate from moment to moment by specific and dynamic processes (Tesser, & Campbell, 1985). According to Dauenheimer, Stahlberg, Spreemann, and Sedikides (2002), self-evaluation can be accomplished by 3 central routes. The first possible route is to unconsciously positively color self-relevant information, which is known as self-enhancement. The second, is to accurately and objectively gather and evaluate self-relevant information, which is know as self-assessment. And the third, self-verification, is the affirmation of existing self-concepts or self-definitions.

Self-enhancement (biased self-enhancing) is better explained as the tendency for individuals, while self-evaluating, to psychologically unconsciously desire to enhance their self-conceptions in a positive way or to protect the self from threatening or negative information. In other words, self-relevant information is psychologically processed in a better light than it may actually be deserved as the person is striving for a positive self-identity and avoiding or positively adjusting negative elements of the self (e.g., Kunda, 1990). Ample amounts of supporting research on the motivation to seek positive states or to self-enhance, has been found since the 1970s. More recently Sedikides (2007) defined the term self-enhancement as "the motive to maintain or elevate the positivity of the self-concept."

Various studies have provided an ample amount of evidence that individuals use feedback from social experiences or new information on the self to maximize the positivity of the self-concept or minimize its negativity (Campbell & Sedikides, 1999; Sedikides & Spencer, 2007; Taylor & Brown, 1988). Feedback accuracy and the strength of conviction with which self-beliefs are held do not necessarily compromise the goal of self-enhancement. Banaji and Prentice (1994) also arrive at the innate need for self-enhancement to be rooted in the fact that humans seek pleasure and avoid pain. Self-enhancement is also believed to be motivated by the desire to bring one's self closer to an ideal image as individuals successfully bring their self closer to an ideal image, providing self-satisfaction, although setbacks leading away from the ideal self, bring about discomfort (Higgins 1987; Taylor & Lobel, 1989). It is posited that the social self is regarded to be largely driven by two main factors: self-knowledge (self-assessment), such as uncertainty reduction, and self-enhancement (Kunda, 1990; Schlenker & Weigold, 1989; Trope, 1986).

Self-assessment, while self-evaluating, refers to the motivation to reduce uncertainty about the individual's abilities or characteristics. This meaning, the individual will seek an accurate picture of the self and a clearer ability on the domain at hand, regardless of the possible negative implications on the self (e.g., Trope, 1986).

A self-verification view, assumes individuals will verify their existing positive self-conceptions by looking for favorable feedback on that domain, and will willingly verify negative self-conceptions by soliciting unfavorable feedback on one's weak-points (e.g., Swann, 1990). Individuals seek consistencies in their self-concepts with new self-relevant information in order to provide some measure of perceived control in the world.

From self-evaluation, we now move to self-evaluation maintenance and the self-evaluation maintenance model. Tesser (1988), defines self-evaluation maintenance as how individuals in a relationship each aim to keep his or herself feeling good psychologically through comparison and reflection strategies in contrast to the other person. The self-evaluation maintenance (SEM) model posits that we have systematic ways of reacting to information that is inconsistent with how we view ourselves in order to enhance our SEM (Tesser, 1988). Tesser (1988) describes three components according to the SEM model, which interact to maintain one's self-evaluation: 1) the closeness of the other involved, 2) performance dimensions, and 3) the level of self-relevance. See Appendix A. When one's self is threatened by another, predictable actions will be taken in order to maintain one's self-evaluation. For example, challenges to one's self-definition and/or self-esteem motivate individuals to engage in either the comparison or reflection process depending on how the situation is appraised, which subsequently provokes motivated behavior (Deckers, 2004; Rosenberg, 1965; Tesser, 2001).

The SEM model assumes on domains of high self-relevance, the individual will employ the comparison process and on domains of low self-relevance, the individual will

employ the reflection process. When employing the comparison process strategy, an individual will consider him or herself better than the close other at that domain in order to protect the self from threatening comparisons. When employing the reflection process strategy, an individual will consider his or her close other as better than the self as to maintain a positive self by association with the good performing other. These strategies will be discussed in detail in Chapter 2. See figure 8 for an example of the comparison and reflection processes.

In efforts to understand how individuals seek self-satisfaction, much research has focused on the self-evaluation maintenance (SEM) model (Tesser & Campbell, 1982). The SEM model was found not to be applicable in certain cultures or groups in which individuals place an emphasis on maintaining relevant close relationships over direct self-enhancement. Surprisingly little research has examined a relationship strengthening process aimed at keeping oneself positive by supporting relevant relationships by comparing one's self to close others on high self-relevant domains. A relationship maintenance strategy was discovered to be employed more often in these cultures.

Relationship maintenance (RM) can be defined as behaviors and cognition that function to keep close relationships satisfying, stable, in a particular state, and in healthy balance despite natural tensions that inhere in social interaction (Canary & Zelley, 2000; Canary & Stafford, 2001). This RM strategy, which occurs on high self-relevant domains, has been termed the secondary reflection process (Isozaki, 2012). With its roots and philosophy in the SEM model, the self-evaluation and relationship maintenance (SERM) model was created in order to describe and explain strategy choices when maintaining a positive self-evaluation in a pan-cultural context.

The secondary reflection process as explained in the SERM model (Isozaki, 2012) posits on certain activities or domains of high self-relevance, the individual will not avoid

the comparison process as the SEM model assumes, but instead will exhibit a RM strategy known as the secondary reflection process, creating a greater positive association between self and close other. The closer the other is, the more often the secondary reflection process is employed. SERM model assumes that people are motivated to maintain a positive self and do so though the comparison, reflection, and secondary reflection strategies. The SERM model posits there are "core high self-relevant domains," which in this dissertation is defined as the most important domain or domains to the individual's current self. High self-relevant domains are defined as domains in which the individual recognizes as highly important to the current self, and low self-relevant domains, which are defined as domains the individual does not find important to the current self. See Appendix B for a model on SEM and SERM, Appendix C for a figure on core, high, and low self-relevant domains, and Figure 13 for a clear example of the secondary reflection process on a high self-relevant domain. Also, see Chapter 3 for a thorough discussion on the SERM model.

Based on the theoretical framework of the recent SERM model, the research in this dissertation is the first of its kind to apply the SERM model to examine how adolescents (16-18 years of age) attempt to maintain a positive self by exploring which strategy, avoiding the comparison process, utilizing the reflection process, or employing the secondary reflection process, is significantly applied on a wide range of highly self-relevant domains in the adolescents' lives. The findings provide new evidence for the SERM model's pan-cultural utilization in understanding adolescent cognition and supply researchers and educators with a clearer picture of how and when adolescents compromise to support a relationship over direct self-enhancement, or choose direct self-enhancement by claiming a niche in the highly self-relevant domain in question.

The SERM model, predicts the RM serving secondary reflection process will be employed on domains that are not considered one's main special niche in life or core high

self-relevant domains, which would be threatening to the self, but will be employed on a wide range of different highly self-relevant domains which are not easy to measure clearly or objectively. Such high self-relevant domains, which are difficult to measure may be highly self-relevant personal traits or general abilities, such as, kindness, being a good friend, attractiveness, wealth, personality, or overall academic ability. High self-relevant domains, which are objectively measurable, such as, a higher grade on a certain subject than one's close other, a faster time on the 100 meter dash, or a high score on a video game, can be readily utilized as one's special niche when compared with the close other. The comparison process is posited to be automatically and unconsciously employed on these objectively measurable high self-relevant domains for SEM. Although fluctuating to meet the present situation, a balance must be maintained between SEM and RM in order to maintain a healthy positive self in the social world.

Not understanding the RM serving secondary reflection process may explain how some Western cultural psychologists (e.g., Heine, Kitayama, & Lehman, 2001; Heine, Lehman, Markus, & Kitayama, 1999; Markus & Kitayama, 1991) assumed Japanese were mainly self-critical, in other words, not maintaining a positive self, when actually Japanese were maintaining a positive self, but reporting it more modestly (e.g., Heyman, Itakura, & Lee, 2011; Yamagishi et al, 2012) or through supporting the close relationship before the direct self. This dissertation in part presents research on exploring such possible oversight.

The self-evaluation and relationship maintenance (SERM) model equips researchers and psychologists with the capability to explain positive relationship building behavior on certain highly self-relevant domains especially in cultures, such as Japan, which place an emphasis on the priority of intimate relationships over the self. In such relationship oriented societies, perhaps "basking in reflected glory" or BIRGing on low

self-relevant domains as Cialdini, Borden, Thorne, Walker, Freeman, and Sloan (1976) coined it, and "basking in relationship benefits" (BIRBing) as Pierce coins it, on high self-relevant domains are more common.

Basking in relationship benefits (BIRBing) is a self-serving cognition whereby an individual compromises to support and maintain a friendship with his or her close other over time, and by doing so, the close other's friendship benefits the self psychologically, socially, economically and/or physically. The benefits of the relationship stimulate a positive self-evaluation. To BIRB, an individual must simply put the time and effort into maintaining a good or well working relationship with a close other, which provides both sides with "perks." Enjoying these perks or support is BIRBing. Examples of BIRBing include anything from an empathetic listener, staying at the friends house in times of hardship, social support, or even the feeling of being meaningful to someone. Feeling meaningful to someone is posited to be a very important factor when maintaining a positive self-evaluation as the perception of having positive attributes makes the person feel as if they are more attractive to the outside social world, and therefore more desirable to others (Shavelson, & Bolus, 1982).

The fundamental need for humans of all ages to have interpersonal relationships not only for survival, but also to thrive, helps guide our motivations, behavior, and influences our biology. One's mental and physical health, are actively guided by experience from past and present relationships (e.g., Baumeister & Leary, 1995; House, Landis, & Umberson, 1988). The effects of loneliness or lack of interpersonal bonds are linked to a variety of physical and mental disorders (Davilia, Burge, & Hammen, 1997; Leary, 1990; West, Kellner, & Moore-West, 1986). Individuals appear to develop elaborate, and sometimes irrational, relationship oriented cognitive strategies to avoid pain

provoked by rejection, embarrassment, exclusion, and feelings of inefficacy (e.g., Baumeister & Leary, 1995; Leary, 1990).

Regardless of strategy choice (SEM or RM) or context, a healthy individual is posited to seek the unconscious and automatic feeling of self-satisfaction or its higher states (pleasure/ being positive) rather than unsatisfied states (discomfort/ being negative). Even before we are born the avoidance of pain and pursuit of satisfaction and its higher states, appears to have begun (e.g., Ridgway & House, 2006). This is arguably the basic cognitive building blocks of motivations including the motivation to pursue a positive (self-satisfying) self-evaluation congruent to one's social environment. In a nutshell, our physical body is designed to avoid damage through discomfort the nervous system links it with and to seek satisfying physical states, as is our interpersonal cognition designed to avoid discomfort by certain SEM and RM strategies while seeking self-satisfaction.

1.1. Purpose of this study

Little is known on the impact of the influential SERM model's secondary reflection process and on what important domains it is most commonly applied to especially in adolescents. While evidence of the SEM model's comparison and reflection processes have been well documented on certain high and low self relevant domains, no such research has investigated where and when the strategy of promoting a relationship over the self within adolescents (high school students) occurs on a wide range of adolescent relevant domains in school and private life. On certain highly self-relevant domains, which the SEM model assumes the comparison process will be applied, significant contradicting findings have been demonstrated in this research providing solid reason for the importance of this study, the SERM model, and its implications. Given the lack of explanatory

capability the SEM model has, on certain RM strategies used to maintain a positive self through promoting the close other on highly self-relevant domains instead of avoiding comparison, the purpose of this study is to examine the application of the comparison process and secondary reflection process on a variety of previously unexplored high self-relevant domains, cultures, and a new age group of sixteen to eighteen year olds to better explain adolescent cognition and behavior.

This study examines which SEM and RM processes are statistically significantly applied on high self-relevant domains, and low self-relevant domains. This provides a better understanding of what adolescents in Asia, especially in Japan and Singapore, find important to his or her self, how he or she imagines the capabilities of his or her self and close others, and how he or she maintains his or her positive self through relational experiences with his or her close others.

1.2. Research Questions

The following research questions were investigated: 1) Is there clear evidence of the SEM model's comparison and reflection processes on high and low self-relevant domains, and for the added SERM model's secondary reflection processes on high self-relevant domains in high school students, particularly in Asia, and specifically for Japanese and Singaporean adolescents? 2) Is the comparison process applied to core high self-relevant domains? 3) On what domains do adolescents use the secondary reflection process? 4) Due to cultural differences discussed below, do Japanese adolescents employ the secondary reflection process more often than adolescents in Singapore? 5) On what domains do Japan and Singapore differ on strategy choice? 6) Do adolescents choose

school related activities over private life activities or domains in maintaining a positive core self?

1.3. Hypotheses

It is hypothesized that: 1) There will be clear evidence of the SERM model's comparison, reflection and secondary reflection processes on high and low self-relevant domains in Japan and Singapore. 2) The comparison process will be applied to core high self-relevant domains. 3) Adolescents will choose the secondary reflection process on non-threatening high self-relevant domains that (e.g., personality characteristics). 4) Japanese adolescents will employ the secondary reflection process more often than adolescents in Singapore because of Japan's focus on supporting relationships over the self. 5) Japan and Singapore will differ on strategy choice on the domains of sports, important school subject, and academic ability. Japanese students will be more modest in their answers. 6) Students will choose activities or domains not related to school activities in maintaining a positive self. This posited to be due to free-time activities being governed less by authority figures as school activities are and that adolescents find more individuality outside of school subjects as there are countless domains to find niches in than in the 5-10 school subjects offered at schools.

1.4. Definition of Key Terms

The following section and discussions on the SEM model in Chapter 2 are in part similar to Pierce's master's thesis (2013) on the SEM model titled, Time Sequential Analysis of Self-Evaluation Maintenance Among High School Students in Japan. This

dissertation moves from the SEM model, to the recent pan-cultural SERM model and its ability to explain adolescent cognition and behavior, with unique supporting evidence found in Japan and Singapore. In Pierce's master's thesis, it was evident that there was a needed extension to the SEM model in order to explain certain relationship maintenance cognition, or relationship maintenance behavioral tendencies.

In order to provide clarity to certain relevant terms in this dissertation and to label important terms in the SERM model, the following terms have been defined.

1.4.1. Adolescence: The Target

Many researchers have defined the term adolescence, with variations dictated by the academic discipline of the researcher. Adolescence is defined in the physical terms as the start of puberty in the early teens, which continues until adulthood. Research on the physical health of adolescence according to Leffert, Petersen, Kato, and Mann (1996) tends to focus more on the body going through puberty, which brings into play thoughts on what is physically normal, one's own body and appearance, and individual look. For individuals in middle and late adolescence, one's health becomes progressively related to psychological processes linked with this period of life such as building one's self confidence and autonomy. In this dissertation, the following psychological definition will be utilized. Adolescence is a period of personal development during which one attempts to establish one's self-identity, autonomy, and feelings of self-worth which include alteration of image, adaptation to more abstract intellectual abilities, accommodation of the environmental and social demands of becoming behaviorally mature, and internalization of an appropriate value system (Buckler, 1987; Ingersoll, 1989; Ladd, 2004).

1.4.2. Avoiding Comparisons Effortlessly

"Avoiding comparisons effortlessly" or **"**ACEing" refers to the comparison process of the SERM model, which posits, on core high self-relevant domains, an individual will avoid comparison (not thinking about actual personal ability or possession of), but will make a snap decision, seeing one's self more able than a close other at the domain in question. This automatically makes the individual feel good about his or her self on high relevant domains, which are not easily measurable (e.g., free-time activity, positive self-identity trait).

1.4.3. Basking in Reflected Glory

"Basking in reflected glory" or BIRGing as Cialdini, Borden, Thorne, Walker, Freeman, and Sloan (1976) coined it, occurs on low self-relevant domains. This cognition happens when an individual identifies with an auspicious other and feels personally good about the other's successes or accomplishments as if those successes were his or her own.

1.4.4. Basking in Relationship Benefits

"Basking in relationship benefits" (BIRBing) as Pierce coins it, describes the secondary reflection process unveiled by Isozaki in 2012, which occurs on high self-relevant domains. The self not only enjoys, but socially needs the benefits of the relationship, which come in the form of self-meaningfulness (by the responsibilities of being in the relationship), support, and opportunities (free-time, and employment) (Brueckner, 2006). BIRBing is a self-serving cognition whereby an individual compromises to support and maintain a friendship his or her close other over time, and by doing so, the close other's friendship benefits the self psychologically, socially, economically and/or physically. The benefits of the relationship stimulate a positive self-

evaluation. To BIRB, an individual must simply put the time and effort into maintaining a good or well working relationship with a close other, which provides both sides with perks. Enjoying these "perks" or support is BIRBing. Examples of BIRBing include anything from staying at the friends house in times of hardship, social support or friend to friend advice, or even just feelings of being meaningful to someone. Feeling meaningful to someone is posited to be a very important factor when maintaining a positive self-evaluation. The perception of having positive attributes makes the person feel as if they are more attractive to the outside social world, and therefore more desirable to others (Shavelson, & Bolus, 1982).

1.4.5. Cutting Off Reflected Failure

The secondary comparison process or "Cutting off reflected failure" (CORFing) (Snyder, Lassegard, & Ford, 1986) occurs on low self-relevant domains, when a supported other fails at a low self-relevant domain causing the individual to distance him or her self from that other or even renounce affiliation with that other or group (e.g., Bizman & Yinzon, 2002). Perhaps in some Western societies, BIRGing and CORFing (Snyder, Lassegard, & Ford, 1986; Bizman & Yinzon, 2002) on low self-relevant domains are more strategic to staying positive.

1.4.6. Comparison Process

The comparison process as explained in the SEM model by Tesser (1988) assumes close others are employed as standards of comparison in evaluating the self. This comparison leads individuals to feel good by downward comparisons and at loss by upward comparisons. When the comparison process is in use on core highly self-relevant activities or domains, evidence demonstrates individuals unconsciously choose

relationships with downward comparison targets or simply assume the self is better at the domain in question (avoiding comparison) so as to maintain or self-enhance one's self-evaluation. The comparison process helps an individual to maintain a positive self by avoiding self-threatening comparisons with close others.

1.4.7. Reflection Process

The reflection process as explained in the SEM model by Tesser (1988) assumes close others are not seen as others to compare one's self to; rather, others are viewed as representing the self through their exceptional actions on low self-relevant domains. This reflection leads to individuals feeling enhanced by upward comparisons and at a loss by downward comparisons. When the reflection process is in use, evidence demonstrates individuals will choose relationships with upward targets of comparison to create a positive affiliation between the self and other in order to maintain or self-enhance one's self-evaluation.

1.4.8. Relationship Maintenance (RM)

Behaviors and cognition that function to keep close relationships satisfying, stable, in a particular state, and in healthy balance despite natural tensions that inhere in social interaction is known as relationship maintenance (RM) (Canary & Zelley, 2000; Canary & Stafford, 2001). This definition of RM will be utilized in this study. The secondary reflection process of the SERM model (defined below) is a type of cognition that functions to help maintain RM.

1.4.9. Secondary Comparison Process

The secondary comparison process (CORFing) leads an individual to feel good by downward comparisons by rejecting the other's failures as being associated with the self on low self-relevant domains. In other words, an individual will choose low self-relevant domains in which the known successful supported other fails at and unconsciously avoid threatening comparisons by distancing him or her self from the other's failure as to avoid those failures being his or her own, because of the support and loyalty the individual once gave that other. Research on this kind of social cognition, also described as CORFing, has been demonstrated most with sports fans (e.g., Bizman & Yinzon, 2002; Snyder, Lassegard, & Ford, 1986; Wann & Branscombe, 1990). This secondary comparison process is posited to be a low self-relevant SEM strategy as opposed to a RM strategy. The important difference between the comparison process and the secondary comparison process is that the comparison process occurs on highly self-relevant domains, and the secondary comparison process occurs on low self-relevant domains when the other fails at a supposed successful domain. Even though the known successful supported other is better than the self at the domain in question, after a failure at that domain by the other, the individual is posited to avoid the comparison process by rejecting the previous positively distorted and embellished image of the other and labeling that other as an exaggeratedly negative distorted image. The proposed secondary comparison process is described in the complete SERM model, but is not central to this dissertation as the focus of this dissertation is on core and high self-relevant SEM and RM strategies, nor is the secondary comparison process posited to be a main strategy in maintaining a positive self.

1.4.10. Secondary Reflection Process

The secondary reflection process as explained in self-evaluation and relationship maintenance (SERM) model (Isozaki, 2012) posits on certain domains of high self-relevance, the individual will not use the comparison process as the SEM model assumes, but instead will exhibit a RM strategy known as secondary reflection process, creating a greater positive association between self and close other. The important difference between the reflection process and the secondary reflection process is that the reflection process occurs on low self-relevant domains, and the secondary reflection process occurs on high self-relevant domains. Individuals are predicted to choose certain non-threatening high self-relevant activities in which to promote close others for the good of the relationship. Feelings of self-enhancement by supporting close others or relationships, even on high self-relevant activities or domains, appear to outweigh promoting his or her self.

1.4.11. Self-Enhancement

Sedikides (2007) defines the term self-enhancement as "the motive to maintain or elevate the positivity of the self-concept." According to Dauenheimer, Stahlberg, Spreemann, and Sedikides (2002), self-evaluation can be accomplished by 3 central routes. The first possible route is to unconsciously positively color self-relevant information, which is known as self-enhancement. The second, is to accurately and objectively gather and evaluate self-relevant information, which is know as self-assessment. And the third, self-verification, is the affirmation of existing self-concepts or self-definitions (e.g., Kunda, 1990; Schlenker & Weigold, 1989; Trope, 1986). Self-enhancement refers to striving for a positive self-identity and avoiding or positively adjusting negative elements of the self. Individuals use feedback from social experiences or new information on the self to maximize the positivity of the self-concept or minimize its negativity (Campbell &

Sedikides, 1999; Taylor & Brown, 1988). Feedback accuracy and the strength of conviction with which self-beliefs are held do not necessarily compromise the goal of self-enhancement.

The innate need for self-enhancement is considered by some to be rooted in the fact that humans seek pleasure and avoid pain (Banaji & Prentice, 1994). Self-enhancement is also believed to be motivated by the desire to bring one's self closer to an ideal image (Higgins 1987; Taylor & Lobel, 1989). As individuals successfully bring their self closer to an ideal image, pleasure is obtained, and set backs leading away from the ideal self, bring about discomfort.

1.4.12. Self-Evaluation Maintenance (SEM)

Tesser (1988) defines SEM as how individuals in a relationship each aim to keep his or herself feeling good psychologically through comparison and reflection strategies in contrast to the other person. This constant fluctuation of how an individual self-evaluates is much less stable or enduring then self-esteem.

1.4.13. Self-Evaluation and Relationship Maintenance (SERM) model

The self-evaluation and relationship maintenance (SERM) model (Isozaki, 2012) is a needed extension to the SEM model. SERM better explains the phenomenon of RM strategies, particularly the secondary reflection process, used while maintaining self-evaluation. An advantage of the SERM model over the SEM model is that it explains how RM strategies can be applied to understanding self-evaluation in societies tending to place an emphasis on the importance of close relationships, which the original SEM model did not explain or clarify.

1.5. Chapter 1 Summary

Self-evaluation maintenance refers to the continually fluctuating process of determining (evaluating) personal growth, ability, and progress in comparison to others. Relationship maintenance is an innate human characteristic, which may vary in degree depending on culture, or personality, but not in quality. Individuals who support and build their relationships are more resilient, happier, take pride in their relationships, and reap the benefits of the investment when needed. It is also posited that those who do not compromise psychologically, by maintaining a relationship over the immediate self, will lose important individuals in his or her life and lose resources. A healthy balance between Self-evaluation maintenance and relationship maintenance is important in not only surviving, but thriving. If relationship maintenance is lacking in highly competitive situations, stress will be generated and unsatisfied states will set in. Relationship maintenance can be thought of as a broadening of one's self; combining one's self with others by way of relationships to stand together and prosper.

The self-evaluation maintenance model fails to take into consideration this relationship maintenance strategy, leaving certain cognition and behavior unexplainable. On high self-relevant factors or domains, adolescents are rating their friends significantly better than themselves. Questions remained unanswered. Thus, this dissertation explores the previously uninvestigated secondary reflection process strategy in adolescents and numerous uninvestigated high self-relevant domains in hopes of better understanding how adolescents maintain a positive self, through self-evaluation maintenance and relationship maintenance strategies with close others.

1.6. Organization of Chapters

Following this introduction chapter, this dissertation is organized into 3 major sections. The first set of chapters, reviews the theoretical background of the study focusing on the SEM model and the SERM model. The study reported in this dissertation is based on the SEM model and the SERM model (Chapters 2 and 3).

The second set of chapters describes the study comprising this dissertation. The method, analysis, results, and discussion are examined here.

The final chapter summarizes the findings from this study, the conclusions to be drawn from this study, the limitations of this study, the implications of this study, and further research needed on SERM model.

Chapter 2

Self-Evaluation Maintenance Model

My best friend is the one who brings out the best in me.
(Henry Ford)

2.1. Self-Evaluation Maintenance (SEM) Model

The SEM model was created off the concept of self-evaluation, which refers to the continual fluctuating process of determining (evaluating) personal growth, ability, and progress in comparison to others (Tesser, 1988). Sedikides (1993) finds that there are three major self-evaluation processes, self-assessment, self-enhancement, and self-verification. In order for a self-evaluation to occur, there must be two factors present: a real or anticipated event and a self established interpersonal criterion to compare that to (Rehm, 1977). If the event meets or exceeds the criterion, it is evaluated as positive; if not, it is undesirably negative. Interpersonal experience, especially at young age, is posited to be the primary source of self-evaluative deduction and affective reactions (e.g., Higgins, 1987; Strauman & Higgins, 1987).

Tesser (1988) defines SEM as how individuals in a relationship each aim to keep his or herself feeling good psychologically through comparison and reflection strategies in contrast to the other person. SEM became a pivotal theory in Social Psychology and offers a rich theoretical framework and model from which to examine the components of behavior (Tesser & Campbell, 1982). The SEM model posits that we have systematic ways

of reacting to information that is inconsistent with how we view ourselves in order to enhance our SEM (Tesser, 1988). When one's self is threatened by another, predictable actions will be taken in order to maintain one's self-evaluation. For example, challenges to one's self-definition and/or self-esteem motivate individuals to engage in either the comparison or reflection process depending on how the situation is appraised, which subsequently provokes motivated behavior (Deckers, 2004; Rosenberg, 1965; Tesser, 2001). As mentioned earlier, self-esteem is personality trait, while self-evaluation is regularly fluctuating and much less stable or enduring, as it adapts and fits to protect the self in various social situations.

Tesser (1988) describes three components according to the SEM model, which interact to maintain one's self-evaluation: 1) the closeness of the other involved, 2) performance dimensions, and 3) the level of self-relevance. See Appendix A. Closeness is considered the relationship between an individual and his or her close others. Evidence in various studies finds friends to be similar in self-relevant abilities (e.g., Berscheid & Walster, 1977; Rubin, 1980). The SEM model assumes the closer friends are, the greater the threat to one's self-evaluation as well as the potential for self-evaluation enhancement (e.g., Pleban & Tesser, 1981). In other words, the closer friends are, the greater the potential for the comparison or reflection processes to be regarded as self-relevant.

The comparison process as explained in the SEM model by Tesser (1988) assumes close others are employed as standards of comparison in evaluating the self. This comparison leads individuals to feel good by downward comparisons and at loss by upward comparisons. When the comparison process is in use on core highly self-relevant activities or domains, evidence demonstrates individuals will choose relationships with downward comparison targets as to maintain or self-enhance one's self-evaluation. On the other hand, the reflection process (Tesser, 1988) assumes close others are not seen as

others to compare one's self to; rather, others are viewed as representing the self through their exceptional actions on low self-relevant domains. This reflection leads to individuals feeling enhanced by upward comparisons and at loss by downward comparisons. When the reflection process is in use, evidence demonstrates individuals will choose relationships with upward targets of comparison to create a positive affiliation between the self and other in order to maintain or self-enhance one's self-evaluation. See figure 8 for a clear example of the comparison and reflection processes.

Applied to the school setting, students who are outperformed by a close schoolmate in a self-relevant school subject need to make strategic adjustments. The student could distance him or herself from the friend, reduce the self-relevance of the school subject, or study harder in an attempt to outperform the friend in the future. If the student does not make any of these adjustments he or she would suffer a negative affect (Tesser, 1988). If this depiction is correct, performance on self-relevant school or extracurricular activities should be associated with considerable decision making in friendship choice and/or the relevance of activities.

Self-relevance refers to how important a target behavior is to one's self-definition. There are many matters a person can consider self-relevant, but only a limited number that are truly cognitively decided to define the self. For example, a high school student who is very interested in art: if a classmate offered him or her advice on how to improve his or her art, and the student had only recently begun to be interested in art, he or she would likely welcome the advice. However, if the student thought he or she was an expert at art, and a classmate offered advice on art, the student might react defensively. The SEM model predicts that threats to highly self-relevant areas (a person's perceived area of expertise) will influence one's self-evaluation considerably more than threats to low self-relevant areas. Although the two are related, the emphasis of the SEM model is not on better

understanding the uncertainty of one's capabilities when compared to others as in a theory by Festinger (1954) on social comparison processes, but on how one maintains or enhances self-evaluation.

2.2. SEM's Affective Consequences

The dynamics of the SEM model become particularly apparent when each of the crucial three components, closeness, relevance, and performance are held steady. For example, if a student is unable to manipulate the situation in order to maintain self-evaluation, the student will experience what Tesser, Millar, and Moore (1988) describe as affective consequences. In other words, a negative affective reaction will ensue and could arrive in the form of distain, criticism, or contempt even during a routine social interaction.

In three studies, Tesser, Millar, and Moore (1988) demonstrated affective consequences by giving individuals negative performance feedback in comparison to his or her close other (friend) and distant other (stranger) on high self-relevant and low self-relevant topics. Participants exhibited affective consequences produced by the discomfort by rating emotional words more negatively, exhibiting greater negative emotional arousal, and displaying negatively affective facial expressions.

The studies provide implications for educators of adolescents in that, an upwelling of negative emotions in a student, because of the inability to maintain his or her self-evaluation, may cause detrimental school behavior such as bullying, or withdrawal. In comparison to adult behavior, adolescent behavior due to developmental grounds is often amplified and less productive decisions are made in times of negativity (Steinberg, 2004). Also, interest in risk taking behaviors increases; feelings of invincibility are reported; and

engaging in contention with family members, authoritative figures, distant classmates, and society in general rise (Irwin, 2003; Millstein & Halpern-Felsher, 2002).

2.3. Relevant Empirical Research on SEM

The SEM model assumes that students maintain a positive self-evaluation by appropriate friendship choice and performance distortion strategies in school (Tesser, Campbell, & Smith, 1984). To test this, Tesser, Campbell, & Smith (1984) conducted 3 studies in the United States on elementary school students. The studies are closely related to research in Pierce's master's thesis, and produced supporting evidence for the SEM model's application in predicting friendship choice in relation to performance and interests in children in the American school environment.

The first study examined students' perceived ratings on their own performance and the performance of close and distant classmates on self-relevant and low self-relevant school activities. The prediction that students would see themselves performing better on self-relevant activities than a close classmate (comparison process) and worse on low self-relevant activities than a close classmate (reflection processes) was found to be significant. Clear evidence of the technique termed "Basking in the reflecting glory," as Cialdini and associates (1976) coined it, occurred as the special abilities of close others caused self-enhancement by the reflection process. The results also supported the prediction that the student and even the close classmate would be rated higher than a distant classmate. Classmates labeled as distant others were rated to have exaggeratedly low ratings of performance.

In the second study, students' ratings on his or herself and others were compared to the teachers' ratings of performance on the student and others. The teacher, on activities

the students rated as being self-relevant and low self-relevant rated students and their close classmates similarly. The greatest discrepancy between teachers' ratings and students' ratings of performance on self-relevant and low self-relevant activities was on ratings of distant others. There was a negative distortion of performance on self-relevant and low self-relevant activities for distant classmates by students in comparison to the teachers' ratings. Students rated distant classmates with considerably lower performance abilities than did the teacher. Out-group members have been found to be discriminated against in a wide variety of studies (e.g., Brewer, 1999; Tajfel, 1970). Exaggeratedly low downward comparisons of out-group members can arguably be accounted for by such causes relevant to this reports theme, as an individual's unconscious motivations to avoid negative self-evaluations (through mistaken beliefs, e.g., realization that one's self or group is not so great or correct), direct self-enhancement and/or RM strategies, and to protect one's sacrifices in his or her in-group relationships that should become investments.

The third study examined actual performance on a school activity and again analyzed performance and friendship choice. Students chose close others who actually performed similarly (but not better) than his or herself. The test scores on a state achievement test demonstrates that distant classmates do not actually perform significantly less well than the student or his or her close classmates.

Overall, students maintained a positive self-evaluation through appropriate friendship choice strategies or students unconsciously distorted own and/or his or her closest others' performance in a way that enhanced self-evaluation. Students tended to choose friends who were overall very similar to his or herself, and distort performance ratings in a way that maintained and enhanced his or her self-evaluation. Students did not choose friends who perform poorly at self-relevant activities in order to self-enhance.

Isozaki and Takahashi (1988, 1993) conducted similar experiments in Japan to that of Tesser's (1984) study. The studies also involved rating performances of the self, close other, and distant other on a self-relevant and low self-relevant activity. Isozaki and Takahashi found a similar pattern to that of Tesser and associate's (1984) study with respect to students' evaluations of themselves and their classmates. The most important cultural difference found occurred when the students own ratings were compared with actual grades on a self-relevant school subject. Findings reveal Japanese students over estimated both their own and the close other's performance similarly, in comparison to the distant other providing evidence of RM.

I now move on to the essence of this dissertation, the SERM model in chapter 3.

Chapter 3

The Self-Evaluation Maintenance and Relationship Maintenance (SERM) Model

A man's friendships are one of the best measures of his worth.

(Charles Darwin)

3.1. Relationship Maintenance (RM) Overview

Cognition and behavior that function to keep close relationships satisfying, stable, in a particular state, and in healthy balance despite natural tensions that inhere in social interaction is termed RM (Canary & Zelley, 2000; Canary & Stafford, 2001). Unlike SEM, RM focuses on the concept of one's friendship evaluation by maintaining rewarding and stable relationships. For example, a student's social identity in school is an important part of his or her self-concept, which is derived from friendships in social groups (Branscombe & Ellemers, 1998; Doosje & Ellemers, 1997). It is posited that memberships in groups and friendship maintenance are ultimately aimed at effectuating self-enhancement. Students, for example, who are in a group, but do not strongly identify with the group strive to protect their individual identities, whereas students who strongly identify with a group are more likely to promote and protect the identity of the group (e.g., Branscombe & Ellemers, 1998). As Japan is traditionally a society of collectivistic characteristics (Triandis, 1995), maintaining healthy relationships by supporting a close other in order to maintain a positive self-evaluation is anticipated to play its part in reducing distortions in ratings on

self-relevant activities between students and his or her close others on research questionnaires.

A study by Isozaki (1994), provided evidence of cross-cultural discrepancies, as the Japanese participants appeared to be especially motivated to engage in more RM on certain domains enhancing close others in ratings of performance or ability. This does not rule out self-enhancement strategies in Japan as many cultural psychologists assumed, as maintaining a healthy relationship by promoting a close other in order to self-enhance is evidence of the need to maintain a positive self-evaluation through secondary reflection processes.

3.2. Self-Evaluation and Relationship Maintenance (SERM) Model

This over estimation of close others in societies placing an emphasis on the priority of intimate relationships over the self, is not clearly explained by the SEM model and thus laid evidence for a SERM model (Isozaki, 2012), which explains RM strategies by the secondary reflection processes and supports the assumption that there is an innate human desire to self-enhance. The secondary reflection process as explained in the SERM model (Isozaki, 2012) posits on certain activities or domains of high self-relevance, the individual will not use the comparison process as the SEM model assumes, but instead will exhibit a RM strategy known as the secondary reflection process, creating a greater positive association between self and close other. See figure 13 for a good example of the secondary reflection process. Also, see the SERM model in Appendix B & C.

The important difference between the reflection process and the secondary reflection process is that the reflection process occurs on low self-relevant activities or matters, and the secondary reflection process occurs on high self-relevant activities or

matters. Individuals are predicted to choose certain non-threatening high self-relevant activities in which to promote close others for the good of the relationship. Feelings of self-enhancement by supporting close others or relationships, even on high self-relevant activities or domains, appear to outweigh promoting his or her direct self. Regardless of exterior influences on strategy choice, it is posited that a healthy individual's interpersonal cognition is ultimately motivated to seek positive self-evaluations. See Appendix D.

Furthermore, in line with the SERM model, societies placing an emphasis on the priority of intimate relationships over the self, the complexity of self-schemata related to maintaining a positive self-evaluation through RM is posited to be more complex than in societies with more individualistic characteristics. See Appendix E. This difference in related schemata complexity is another example of why the secondary reflection process is a needed extension to the SEM model. In a recent, elementary study on this newly discovered RM strategy choice, even Japanese acquaintances (not close others) were seen as possible in-group members by other Japanese, as the secondary reflection process was exhibited in some situations (Shimoda, 2009).

Why is it that humans decide to compromise direct selfish needs for the good of a relationship as is proposed by the secondary reflection process? Is the reward that powerful? It appears to be. Being meaningful appears to be a great need of the human species. But being meaningful to who? The answer to that is posited to be, to close others, to those who we care for and nurture, to those, which we can teach, help, and connect with, and vice versa, including dogs (McConnell, Brown, Shoda, Stayton, & Martin, 2011; Beetz, Uvnäs-Moberg, Julius, & Kotrschal, 2012; Chowdhury, Nelson, Jennings, Wing, & Reid, 2017) Perhaps being meaningful to someone is more important than performance at times. Performing may elicit SEM strategies, while the importance of being meaningful may trigger RM strategies. Having a child for example makes a parent feel meaningful.

Humans, not to mention all living creatures on this planet have an innate desire to have offspring. This is elementary to human life, as from birth an infant depends on his or her caregiver not only for nourishment, but comfort, help, and fun. This first basic relationship sets the stage for the need to maintain relationships for survival and to thrive. RM is posited to be in part, a result of care and nurture from early in life. Again, it is posited that a healthy balance of SEM and RM is needed to be positive and prosper.

3.3. Critics of the Universal Need for Self-Enhancement

There have been many critics in cultural psychology on a pan-cultural need for self-enhancement or seeking a positive self-evaluation (e.g., Heine & Hamamura, 2007; Heine, Kitayama, & Lehman, 2001; Heine, Lehman, Markus, & Kitayama, 1999; Markus & Kitayama, 1991). In an effort to disprove the theory that the need for self-enhancement in SEM processes is a universal human characteristic, the 1990's saw an increase in research by cultural psychologists investigating cultural variations (e.g., Markus & Kitayama, 1991; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997), particularly between Japanese and Americans. Some cultural psychologists (especially from North America) argue that individuals in collectivistic societies are primarily concerned with how to fit in, become part of relevant social relationships, are much less likely to engage in self-enhancement in SEM, and have a much greater tendency to maintain a self-critical attitude, which enables them to attend to tasks that are relevant to their cultural circumstances (Heine et al., 1999).

There have been two major findings in relatively recent cultural psychology that unconsciously influence one's cognition and behavior. The first is that people in some cultures (those in the East more than the West) have much more interdependent values. Interdependent people have much closer ties with others in their in-groups than those in

out-groups, and are more sensitive to social and environmental cues. Independent people have wider circles of close others, and are more apt to trust others outside their in-groups (Nisbett, 2003).

The second major cultural difference (dependent on the first) also in brief, is differences in cognition due to culture and language. Interdependent people are more holistic (versus analytic) in their perception of the world and tend to better perceive and evaluate the whole situation, and see relationships between things in the environment better (Nisbett, Peng, Choi, & Norenzayan, 2001; Nisbett, 2003; Ji, Zhang, & Nisbett, 2004; Silver, Hu, & Iino, 2002). Independent leaning people are more analytic. They tend to focus on an object (this could be another person), its rules, how to categorize it, and how to manipulate it.

Encouraging positive self-regard in North American children starts early. In schools children are encouraged to feel special, often praised, and complemented for extraordinary abilities. In many preschools and schools each child gets a turn to standout and be a V.I.P. (a star) for a day, or a week. Individual birthdays are celebrated and children are honored individually. Children are encouraged to think about themselves positively, as winners, as above average, each person holds "special" qualities and each student should work to be a confident leader (Markus, Mullally, & Kitayama, 1997).

In comparison to North Americans, Japanese have commonly been described as self-critical in orientation by researchers (De Vos, 1985; Kashiwagi, 1986; Roland, 1988; White, 1987). In Japan's education system there is traditionally far less emphasis on uniqueness, but in teamwork and self-reflection. Children are commonly trained in "Hansei" (self-reflection), which involves the individual looking back over a particular event and focusing on what wasn't done ideally and what he or she should try to improve in the future (Johnson, 1993; Roland, 1988). Children have traditionally been encouraged

to search for their own inadequacies, weaknesses, and those aspects of themselves that need to be corrected. This tendency to draw children's attention to potential shortcomings is in sharp contrast to the tactics of North American caretakers or teachers, which tend to draw attention to children's positive features or accomplishments.

Cultural psychologists relate Japanese with role mastery as in Befu (1986) and DeVos (1973). Japanese are presumed to be pressured to succeed at the standards associated with their roles, and are expected to benefit and connect with their relevant groups more so than Western cultures. More recent studies comparing Chinese and North Americans also found that North Americans rated themselves more positively than the Chinese participants (e.g., Kim, Schimmack, & Oishi, 2012; Kim, Schimmack, Cheng, Webster, & Spectre, 2016; Lee, Oyserman, & Bond, 2010).

Comparisons between cultures of greatest variations such as Japan and the United States on ratings from self-esteem scales or self-promotion research may have caused an inflated sense that cultures vary greatly in core SEM strategies. Brown (2005) argues that apparently low Japanese self-esteem is the result of flaws in conceptualization, instrumentation, and interpretation, and does not necessarily reflect negative self-regard in Japan. Regardless, differing positive SEM and RM strategies appear to be automatic and depend on the culture (Heine & Hamamura, 2007). Again, strategy choice may be moderately different in some cases depending on culture, but human beings still attempt to maintain a positive self through SEM and RM. Americans and Japanese have been found to believe that negative traits will tend to correct themselves as the person ages, believing that positive traits represent the person's deeper nature (Lockhart, Nakashima, Inagaki, & Keil, 2008; Bench, Schlegel, Davis, & Vess, 2015).

Evidence found in Isozaki and Pierce's (2013) research on high school students and that in Isozaki and Takahashi (1988, 1993) on Japanese elementary and Jr. high school

students support self-enhancement motives as comparison and reflection strategies described in the SEM model were evident on objectively measurable highly self-relevant areas. In Pierce's master's thesis titled: Time Sequential Analysis of Self-Evaluation Maintenance Among High School Students in Japan (2013), it would seem that Japanese really are self-critical and do not seek self-enhancement as North Americans do if researchers had overlooked say, ratings on high self-relevant school subjects, and free-time activities (all producing clear evidence for the application of the SEM model in Japan), and only examined ratings of GPA and/or ability at being fashionable (providing evidence for RM strategies). Also, in Pierce's master's thesis (2013), Actual GPA scores revealed that there was no significant difference in GPA scores of close friends although participants rated the domain as highly self-relevant and rated close others as having a significantly higher GPA than the self, providing probable evidence of secondary reflection processes by the high school students.

This suggests that various research by cultural psychologists on cultural differences refuting the core need for a pan-cultural self-enhancement in SEM may have: 1) examined inappropriate self-relevant indexes while searching for evidence against SEM in various cultures; some indexes not regarded as most self-relevant exhibit secondary reflection strategies, which hardly signifies an absence of self-enhancement motives, and/or 2) cultural differences in answering questionnaires (e.g., avoidance of extremes) or social behavior strategies in some cultural studies may have contaminated assumptions by cultural researchers, and/or 3) earlier generations of more traditional Japanese were less likely to openly or directly display their self-enhancement motives in comparison to Americans, or even in comparison to the younger less traditional Japanese generations of global/online today.

Finally, while there clearly are, what Pierce terms “skin deep” differences found between cultures (e.g., Fiske, & Taylor, 2013, Nisbett, 2003), “the heart of the matter” suggests an innately human desire for healthy individuals to seek self-satisfaction (self-enhancement) (e.g., Brown, 2010; Gaertner, Sedikides, & Chang, 2008) by SERM strategies.

3.4. SEM and SERM Conclusions

In every culture, individuals seek positive interactions within the context of long-term, caring relationships with close others and at the same time are continuously engaging in the process of evaluating self-growth, ability, and progress in comparison to others. Finding a stable balance between SEM and RM strategies is posited to lead to a healthy self-satisfied state. In order to keep one’s mental health, it is also important for individuals to find areas in their life, which they can succeed at, or have a niche in. Having a niche at something in one’s life, whether in business or pleasure, and maintaining fruitful relationships and supporting relevant others will help buffer stress and anxiety from overwhelming the person, and fulfill one’s feeling of belonging.

The SERM model will allow researchers to examine the utilization of RM and SEM globally on different self-relevant domains, and influential variables on strategy choice (e.g., most self-relevant domain, culture, self-esteem, birth order, gender, age, romance, parent vs non-parent, supporter vs high-achiever). SEM would not be possible without interpersonal relationships (real or perceived) and at the same time, the secondary reflection processes in healthy individuals would not be possible without the motivation to seek self-enhancement.

I now move on to the methodology section in chapter 4.

Chapter 4

Purpose and Methodology

Friendship is born at that moment when one person says to another:
'What! You too? I thought I was the only one.
(C.S. Lewis)

4.1. Purpose of this study

This study provides the first evidence and a better understanding of SERM model's credibility and usefulness among high school students in Asia, especially in Japan and Singapore, by sampling a previously un-sampled population of high school students aged 16 to 18, and collecting data on a new wide range of domains. Contrary to the SERM's assumptions (healthy individuals in all cultures seek a positive self, but through different strategies in some cases), Japan has been found not to seek self-enhancement or a positive self by various researchers (e.g., Heine & Hamamura, 2007; Heine, Kitayama, & Lehman, 2001; Heine, Lehman, Markus & Kitayama, 1999; Markus & Kitayama, 1991). This study examines the unexplored Japanese adolescents, and those from another country in Asia (Singapore) in order to investigate and confirm the SERM's application in understanding significantly employed strategies on a wide range of domains by this age group when maintaining a positive self. Although this research is primarily investigating the SERM model's credibility in adolescents, Japanese adolescents and Singaporean adolescents are also compared to reveal any dissimilarity between the two countries in Asia.

Being granted permission to collect such unique and valuable data from this age group is much more rare than with other age groups. It is also important to mention that, data collected on the list of factors and domains on the questionnaire is to date, the most exhaustive of its kind. See the instruments section below.

This study has offered the academic world a new and fascinating way of understanding another factor to what motivates adolescents, what is core (most self-relevant) to his or her self, and how he or she views his or her close others. It covers a wide range of self-relevant factors and domains previously uninvestigated, which brings to light a new understanding of adolescent cognition for practicing psychologists, counselors, researchers, and educators.

As stated earlier, evidence of the SEM model's comparison and reflection processes have been well documented on certain high and low self-relevant domains, although no such research has investigated where and when the strategy of promoting a relationship over the self, within adolescents, occurs on a wide range of adolescent relevant domains in school and private life. Contradictive to the SEM model's assumptions, findings in this research demonstrate solid reason for the importance of this study, the complete SERM model, and its implications.

Figure 1 is the proposed complete SERM model, which is posited to have sufficient explanatory capabilities for adolescent SEM and RM strategies in maintaining a positive self.

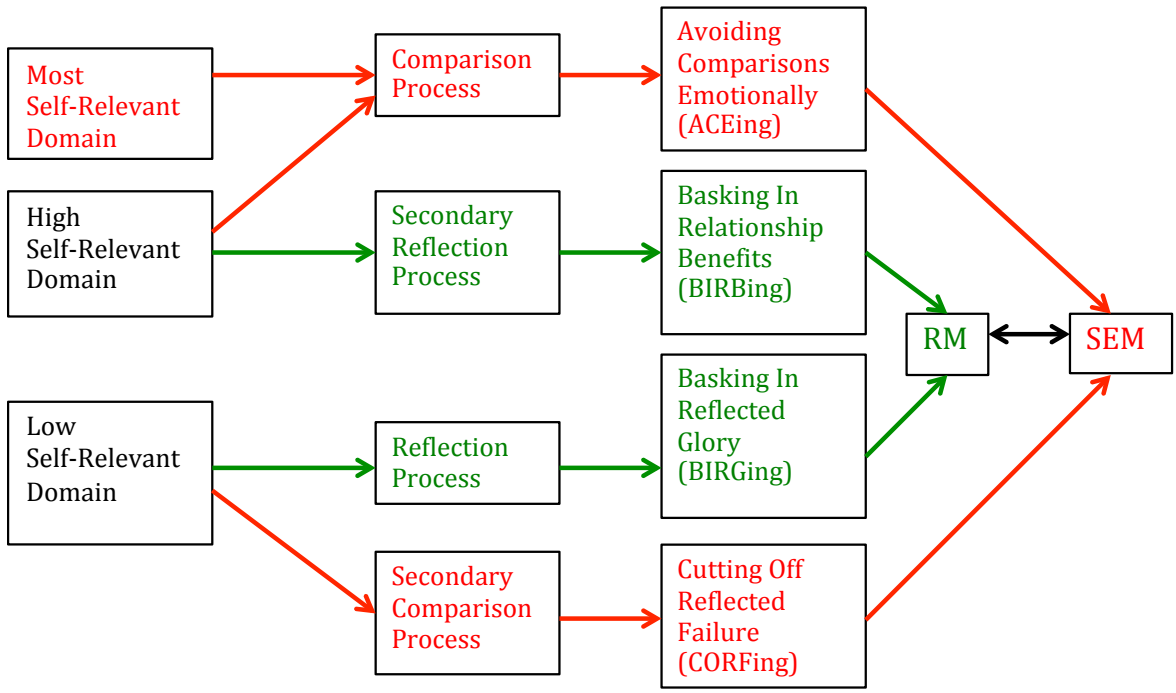


Figure 1. The complete pan-cultural SERM model proposed in this dissertation. This model (excluding the Secondary Comparison Process) is employed to examine and explain the findings of this research.

This dissertation will examine the domains allotted to the secondary reflection process strategy as seen in Figure 2.

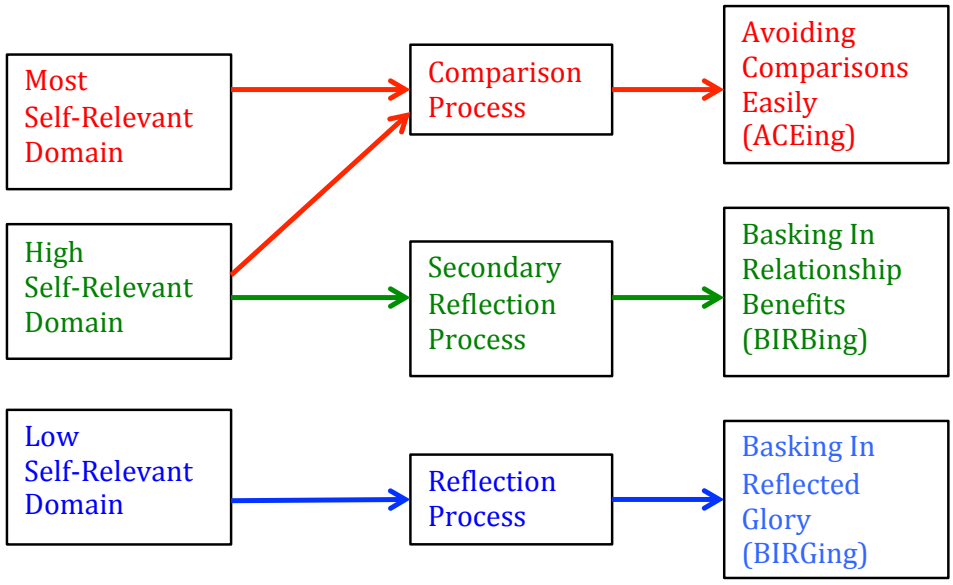


Figure 2. This section of the SERM model is employed to examine and explain the findings of this research.

4.2. Research Questions

The following methodology was employed to examine and better explain adolescent cognition and behavior through the pan-cultural SERM model by investigating the consequent research questions: 1) Is there clear evidence of the SEM model's comparison and reflection processes on high and low self-relevant domains, and for the added SERM model's secondary reflection processes on high self-relevant domains in high school students, particularly in Asia, and specifically for Japanese and Singaporean adolescents? 2) Is the comparison process applied to core high self-relevant domains? 3) On what domains do adolescents use the secondary reflection process? 4) Due to cultural differences, do Japanese adolescents employ the secondary reflection process more often than adolescents in Singapore? 5) On what domains do Japan and Singapore differ

on strategy choice? 6) Do adolescents choose school related activities over private life activities or domains in maintaining a positive core self?

4.3. Hypotheses

It was hypothesized that: 1) There will be clear evidence of the SERM model's comparison, reflection, and secondary reflection processes on high and low self-relevant domains in Japan and Singapore. 2) The comparison process will be applied to core high self-relevant domains. 3) Adolescents will choose the secondary reflection process on non-threatening high self-relevant domains (e.g., wealth, and personality characteristics). 4) Japanese adolescents will employ the secondary reflection process more often than adolescents in Singapore because of Japan's weighty focus on interdependent cultural values (See Chapter 3, for studies addressing social interdependence found in Japan). 5) Japan and Singapore will differ on strategy choice on the domains of sports, important school subject, and academic ability. Japanese students will be more modest in their answers. 6) Students will choose activities or domains not related to school activities in maintaining a positive self. This due to free-time activities being governed less by authority figures as school activities are.

4.4. Method

The following methodology was employed to investigate and better explain adolescent cognition and behavior when maintaining a positive self.

4.4.1. Participants

The principals of each of the two schools graciously granted permission to visit the schools and collect data from the high school students. The participants consisted of 416 high school students (333 male and 83 female) in Tokyo and 300 high school students (132 male and 168 female) in Singapore aged 16 to 18. A total population sample was collected from the high schools. Not included in the data analysis were 32 students' questionnaires in Japan and 14 students' questionnaires in Singapore as the students left it blank or wrote the same number for every answer. Of the students who rejected to answer the questionnaire, approximately 90 percent were male from both countries. The rest of the participants appear to have completed the questionnaire to the best of their ability as the significant findings suggest.

The participants in both schools came from middle class families. The Japanese student participants were all ethnically Japanese. The Singaporean student participants were born in Singapore and were of mostly Chinese descent. Participants were unaware of the purpose or scope of this study to help promote natural answers to questions. The participants were ensured the information collected from the questionnaire would not be shared with their teachers and would only be seen by the researcher. The Japanese participants' data was collected in 2015, while the Singaporean participants' data was collected in 2016.

4.4.2. Instruments

An eight-page questionnaire entitled "Friendship and School Life Survey" provided the quantitative data for analysis. Data was collected on a wide range of adolescent relevant factors or domains such as gender, names of two best friends, friends' birth order, birth order, sibling relationships, enjoyment of school, effort in school, enjoyment of

private life, the importance of school life, the importance of private life, level of being a team player, level of being an individual type person, academic ability, most important and least important school subject, most important and least important free-time activity, most important and least important identity trait, most important and least important club or team activity, overall ability in school, positivity, fashion, independence, health, wealth, being a good friend, attractiveness, cooperation, ability of getting a boyfriend or girlfriend, rebelliousness, ability to accomplish goals in life, good mood, humor, family background, personality, saving money, good family relations, morals, sports, the five most self-descriptive traits, need for latest coolest product, confidence of winning at a carnival, spending habit at a festival or carnival, shop around before buying, does your buy what you want, would you wait for a sale, allowance money, money used shopping, top three things you spend money on, being careful with money, generosity, a strong positive identity trait, one's niche, what are you proud about, something your friend does better, number of meals with parents a week, number of hours conversing with parents, relationship with mother, relationship with father, friction between parents, friction between siblings, do you like your teacher, does your teacher care for you, ability to talk to teacher about problems, most important friendship characteristic, special point in school, homework completion, classmates treated equally, order kept in classroom, stress level, bullying in the school, level of trouble making, and a lost wallet moral dilemma. See Appendix F & G.

Similar in part to a survey administered by Tesser, Campbell, and Smith's (1984) SEM research on children, in order to measure closeness, each participant was asked to name his or her closest (close other 1) and second closest classmate (close other 2) in the same year in school. In order to measure relevance, each participant was given a list of domains (e.g. academic subjects, free-time activities), and asked to pick the most self-

relevant category and least relevant activity for each domain, then rate the self on that domain and close others. On domains such as attractiveness, humor, or fashion ability, students rated the level of self-relevance and then rated ability at, or possession of, that domain.

To better understand more about the participants, participants responded to closed-ended 7-point graphic scale questions on various school, family, and private life items. Two example items follow, “Do you enjoy school?” or “Is there bullying in your homeroom class?” Participants chose from a 7-point scale ranging from *Not at all* (1) to *Very much* (7).

Example questions in which the student would unknowingly choose the comparison, reflection, or secondary reflection process, follow, “How capable are you at your most self-relevant school subject?” followed by, “How capable is your best friend at your most self-relevant school subject?” On certain domains, the participant rated the importance of the domain to him or her self on a 7-point graphic scale, and then rated his or her ability at, or possession of, that domain and that of his or her two close others. For example, “How self-relevant is being fashionable to you?” Participants chose from a 7-point scale ranging from *Not at all* (1) to *Very much* (7), followed by, “How fashionable are you?” followed by, “How fashionable is your closest schoolmate?” Participants chose from the 7-point scale ranging from *Very poor* (1) to *Very good* (7).

4.4.3. Procedure

The Friendship and School Life Survey was administered to the intact classes, after classes, during homeroom, and took approximately 15-20 minutes to answer. Students were observed by Pierce, Professor Isozaki of International Christian University, or by

their teacher. The administering authorities were given a list of guidelines for administering the Friendship and School Life Survey.

The students sat in a formal order as in a test. Students were asked not to speak to each other while they were completing the questionnaire. Students were asked to keep their answers on the questionnaire private. The students were asked to spend 5 to 10 seconds thinking about each question. The questionnaire was distributed to the seated students along with a unique ballpoint pen for each student to keep. Students were reminded to fill out the top right corner on the front page of the survey, which had gender and student number questions. Teachers were asked not to look at the students' answers on the questionnaire. Students were assured teachers would not see the information of individual students and it would be kept totally confidential from the school. Students were asked to answer honestly and without any pressure. Students were told that once all students were finished with the questionnaire, to please put the questionnaires in the large questionnaire envelope and close it. The large envelopes were then promptly collected by Pierce and/or Professor Isozaki of International Christian University, and taken to International Christian University in Mitaka, where the extensive amount of data was input into Excel and then moved to SPSS software for data analysis.

4.4.4. Data Analysis

To provide a description of the participants, descriptive statistics on age, gender, culture, are described, as well as the means, range, and standard deviations for high and low self-relevant rated activities. Where applicable, effect size (Partial ETA squared) will be added for each analysis.

The research design was structured by dependent and independent variables. The dependent variables consist of perceived performance on a wide range of domains.

Independent variables are made up of relevance of domain, closeness (friendships), gender, and culture.

The self and close others' ratings were analyzed by analyses of variance (ANOVAs) on SPSS version 22 (IBM Corp., 2013). Repeated measures analysis. Target persons (self vs close other) x relevance of activity (High Relevant vs Low Relevant) were within-subject variables.

To determine any differences in ratings on variables, according to the moderating effects of gender, culture, and birth order, chi-square, t-tests, and analysis of variance were used to examine for any significant differences. Analyses respect the minimum of the 0.05 level of significance.

4.4.5. Summary of Methodology

In order to investigate the SERM model's credibility and usefulness, and to better understand how adolescents in Japan and Singapore see themselves and close others when maintaining a positive self, unique data was collected on a previously un-sampled age group, and on a new wide range of domains to investigate how adolescents maintain a positive self through SEM and RM strategies. 716 adolescents from a randomly chosen school in Japan and Singapore sincerely completed the Friendship and School Life Survey providing ample data on what adolescents from these countries find highly self-relevant, low self-relevant, and the strategy choice they choose to maintain a positive self.

In the following chapter on analysis of data, adolescents' intriguing unconscious tendencies to avoid comparisons, bask in reflective glory, or basking in relationship benefits between the self and close others on either high self-relevant or low self-relevant domains found in the data will render new insight for cultural psychologists, counselors,

and educators, and build a stronger foundation for the pan-cultural SERM model to branch out into even more cultures and age groups.

Chapter 5

Results

Man is a social animal.
(Benedict Spinoza)

5.1. Results: Introduction

In this chapter, the data is analyzed looking for statistically significant supporting evidence of the comparison, reflection, and secondary reflection processes, advocating the SERM model's usefulness in understanding and explaining adolescent cognition. Analysis of the Japanese and Singaporean adolescents' data provides researchers and educators with unique statistically significant numerical evidence of the differences in strategy choice, whether SEM or RM, on a wide range of adolescent relevant domains, explaining how adolescents struggle to maintain a positive self in school and private life. The following investigation on which of the SERM models' processes are statistically significantly applied on high self-relevant domains, and low self-relevant domains, provides a better understanding of what adolescents find important to his or her self, how he or she perceives the capabilities of his or her self and close others, and how he or she maintains his or her positive self through relational experiences with his or her close others.

Before examining the results section, in order to make this reading more meaningful to the reader, without looking for the answers, Pierce encourages the reader to, on another piece of paper, or by coping Table 1 from this book, list the strategy choice, which he or she assumes will be significantly employed by adolescents on the following domains. In table 1, highlighted domains are domains in which cultural differences, on strategy choice were found, thus list a different strategy for these cultures. Domains, which

are not highlighted, have the same strategy choice or lack of. Japan is abbreviated as JP and Singapore is abbreviated as SG. Note: 416 Japanese high school students and 300 Singaporean high school students completed the study

5.1.1. The Reader's Hypotheses Activity 1:

For each domain, consider how an adolescent sees him or her self in comparison to his or her close others. Is the self perceived as more capable than his ore her close others at the highly self-relevant domain (Comparison process)? Are close others perceived as more capable at the highly self-relevant domain (Secondary reflection process)? Or, is there no consensus on strategy choice? A total of 29 domains rated as highly self-relevant were examined. Adolescents chose statistically significantly similarly on the majority of the domains either by culture or as a whole. See Table 1 on the next page for the domains.

Hint: There are Four Types of Findings:

1. Both cultures chose the comparison process (CP) for 6 domains.
2. Both cultures chose the secondary reflection process (SRP) for 7 domains.
3. There was no common strategy choice for both cultures (NS) for 8 domains.
4. There were cultural differences in strategy choice for the 8 highlighted domains.

For each domain, list the strategy choice you hypothesize will be employed (CP or SRP).

CP (Comparison process), "I am 'better' than my friends at this domain."
SRP (Secondary reflection process), "My friends are 'better' than me at this domain."
NS (No significantly or commonly employed strategy for this domain)

Table 1. The Reader's Hypotheses Activity 1. Fill in the Strategy Choice you predict to be employed (CP or SRP). The results are displayed in Table 35.

		Strategy Choice	
	Domain	JP Strategy	SG Strategy
1	Important School Subject		
2	Important Free-Time Activity		
3	Most Desired Identity Trait	NS	
4	Important Club/Team Activity		
5	Overall Ability in School		
6	Positivity	NS	
7	Fashion		
8	Independence		
9	Health	NS	
10	Wealth		
11	Good Friend		
12	Attractiveness		
13	Cooperation		
14	Ability to get a GF/BF		
15	Rebelliousness		NS
16	Accomplish Goals in Life	NS	
17	Good Mood		
18	Humor		NS
19	Family Background	NS	
20	Good Personality		
21	Saving Money	NS	
22	Good Family Relations	NS	
23	Morals	NS	
24	Athletic Ability		
25	Positive Self-Identity Trait		
26	Contribute to Friends' Circle		
27	Area of Great Pride		
28	Best Friendship Characteristic		NS
29	Special Point in School	SPR&CP	

5.1.2. The Reader's Hypotheses Activity 2:

The domains, Best Friendship Characteristic, Area of Great Pride, and Special Point in School are excluded from this activity, as participants did not rate the self-relevance of these domains. Which domains from Table 1, do you think were most and least commonly rated as highly self-relevant? See Table 2 below.

Table 2. The Reader's Hypotheses Activity 2. The results are displayed in Table 36 and 37.

JAPAN

List the 6 domains from the 26 domains on the previous page, which you assume will be most popularly rated as highly self-relevant, and then the assumed 6 least most popularly rated high self-relevant domains by the 416 Japanese adolescents sampled.

Most Popular Domains

#1 _____

#2 _____

#3 _____

#4 _____

#5 _____

#6 _____

Least Popular Domains

#1 _____

#2 _____

#3 _____

#4 _____

#5 _____

#6 _____

SINGAPORE

List the 6 domains from the 26 domains on the previous page, which you assume will be most popularly rated as highly self-relevant, and then the assumed 6 least most popularly rated high self-relevant domains by the 300 Singaporean adolescents sampled.

Most Popular Domains

#1 _____

#2 _____

#3 _____

#4 _____

#5 _____

#6 _____

Least Popular Domains

#1 _____

#2 _____

#3 _____

#4 _____

#5 _____

#6 _____

5.2. Analysis of the Data: Introduction

Students' ratings of their own perceived performance and those of two close schoolmates (close other 1 or best friend, and close other 2 or second best friend) on various domains described in Chapter 4 were analyzed by analyses of variance (ANOVAs). Target persons (self vs close other) x relevance of activity (HR or High vs/ LR or Low) were within-subject variables. The gender and the culture variables were between subject variables. Descriptive statistics on ratings of performance on a domain for high and/or low relevance are also shown in the following tables.

This ground breaking analysis section begins with descriptive statistics for the Japanese and Singaporean participants. This is followed by, general school and private life ratings. This chapter then moves to analyze those domains, which data was collected on both a high self-relevant and a low self-relevant activity within that domain (School Subjects, Free-Time Activities, Identity Traits, Club/Team Activities) to provide evidence of the basic SEM model's comparison and reflection processes. Then, a wide innovative range of domains, which were rated as being highly self-relevant are analyzed. Culture similarities and differences are examined for each domain.

Finally, an additional analysis examines significant gender and culture differences. Although gender is not a focus of this research and there were few domains in which significant gender differences in strategy choice were found, the differences are explored for those researchers and educators interested in the findings.

This analysis on domains of high self-relevance investigates, which strategy, the comparison process or the secondary reflection process is implemented. Analysis of the Japanese participants' data is labeled as JP, and that of the Singaporean participants' data is labeled SG. Important note: For readers pressed for time, for each domain, see the domain's figures and their captions, as the figure paints a picture which demonstrates

adolescents' strategy choices. Figures are followed by a statistical analysis of the data by mixed design ANOVAs.

5.3. General Participant Descriptive Statistics

On the next page, Table 3 provides general culture, gender, and age statistics. Followed by general school and private life ratings presented in Figures 3, 4, and 5. In order to better understand the general adolescent situation both at school and in private life, these introductory questions appeared on the Friendship and School Life Survey.

Table 3. General Descriptive Statistics for the Japanese and Singaporean Participants.

Japanese	416
Male	333
Female	83
Age Range	16 to 17
Average Age	16.33

Singaporean	300
Male	132
Female	168
Age Range	16 to 18
Average Age	16.45

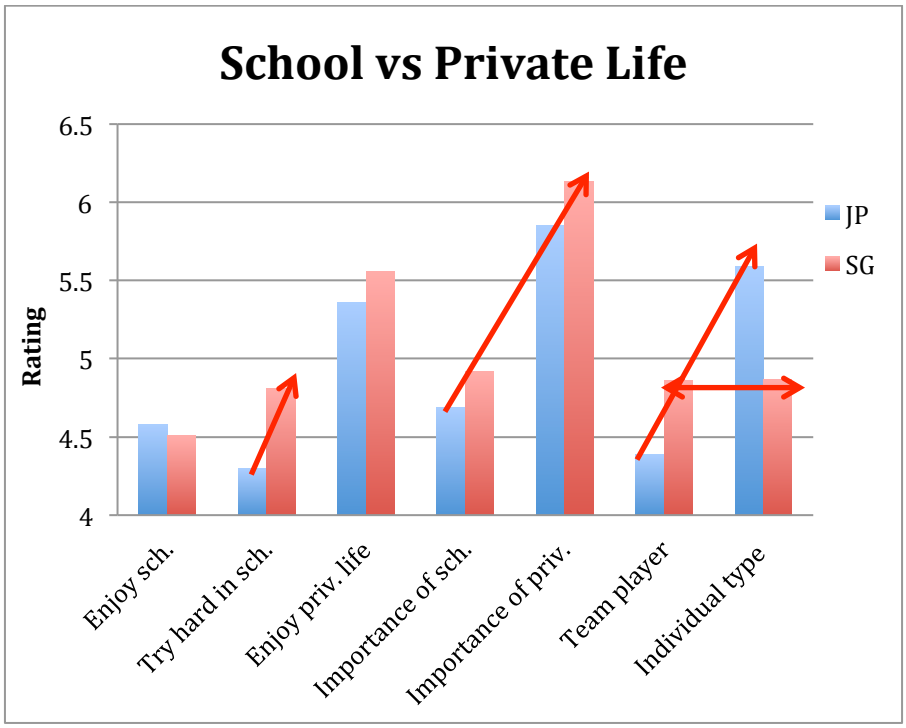


Figure 3. Ratings on general school and private life. Adolescents in both cultures clearly value his or her private-time. Japanese rate the self as being an "Individual Type" of person higher than being a "Team Player" type of person.

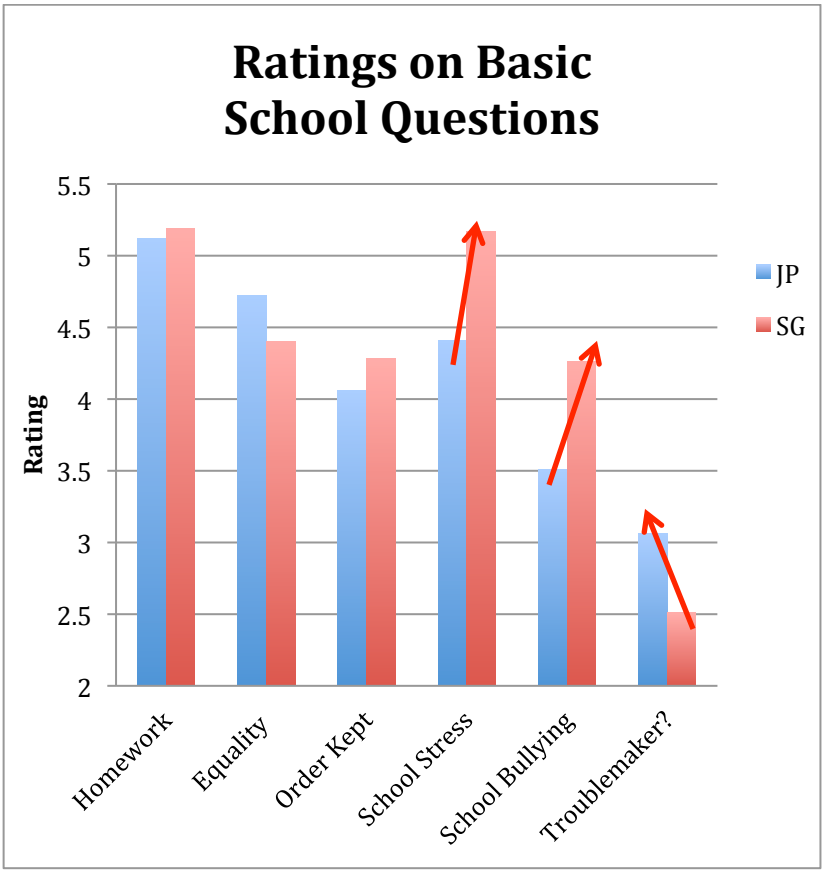


Figure 4. Ratings on general school questions are explored. "Homework Completed", "Equality Between Students", and "Order Kept in the Classroom" were rated very similarly for each culture. Singaporean students rated "School Stress", and "School Bullying" higher than Japanese. Japanese students, on average, rated the self as being more of a "Troublemaker" than did Singaporeans.

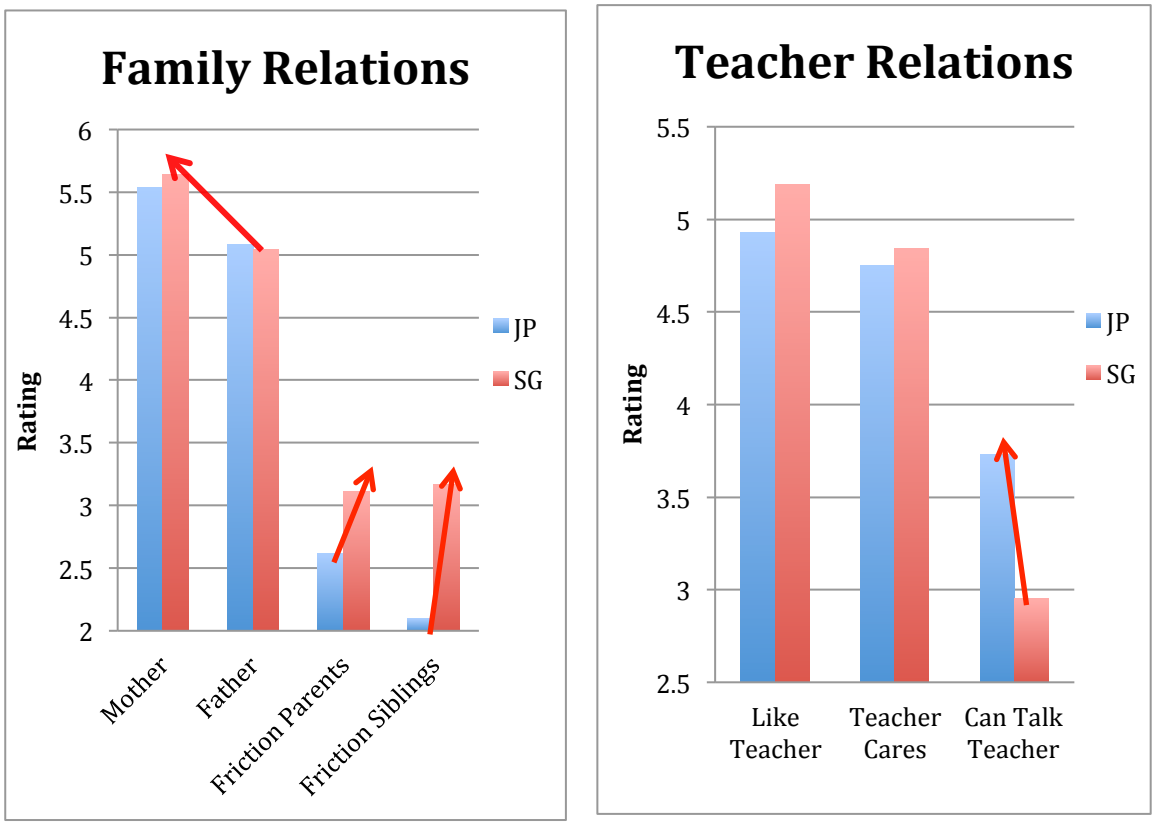


Figure 5. Ratings on teacher and family relations are explored. Regardless of culture, the relationship with the participant's mother, on average, was higher than that with his or her father. Singaporeans rated friction between family members higher than did Japanese, especially for "Friction Between Siblings." Both cultures rated "Liking Your Teacher" and "How Much the Teacher Cares for You" similarly. Japanese rated, "Being Able to Talk About Your Problems with Your Teacher," higher than Singaporeans.

5.4. Investigating the Comparison and Reflection Process

In the following section, student's ratings of his or her self's own perceived performance are labeled as "Self" and those of his or her best friend are labeled as "Close Other 1" or "C1" and ratings of his or her second best friend are labeled as "Close Other 2" or "C2."

5.4.1. Ratings of Performance on School Subjects

Students' ratings of their own perceived performance and those of two close classmates on a school subject that the student designated as highly self-relevant (HR) and one designated as low self-relevant (LR) were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) x relevance of activity (HR vs LR) were within-subject variables and culture was a between subject variable. Descriptive statistics on ratings of performance on a school subject for high and low relevance are shown in Tables 4 & 5. See Figures 6 & 7.

Table 4. Means and Standard Deviation of Ratings on the School Subject Domain in Japan (n=331).

	HR		LR	
	M	*SD*	*M*	*SD*
Self	5.04	1.24	2.80	1.30
Close Other 1	4.21	1.38	4.29	1.67
Close Other 2	4.31	1.39	3.97	1.51

Table 5. Means and Standard Deviation of Ratings on the School Subject Domain in Singapore (n=243).

	HR		LR	
	M	*SD*	*M*	*SD*
Self	4.44	1.53	2.44	1.15
Close Other 1	4.76	1.32	4.09	1.27
Close Other 2	4.75	1.18	4.26	1.26

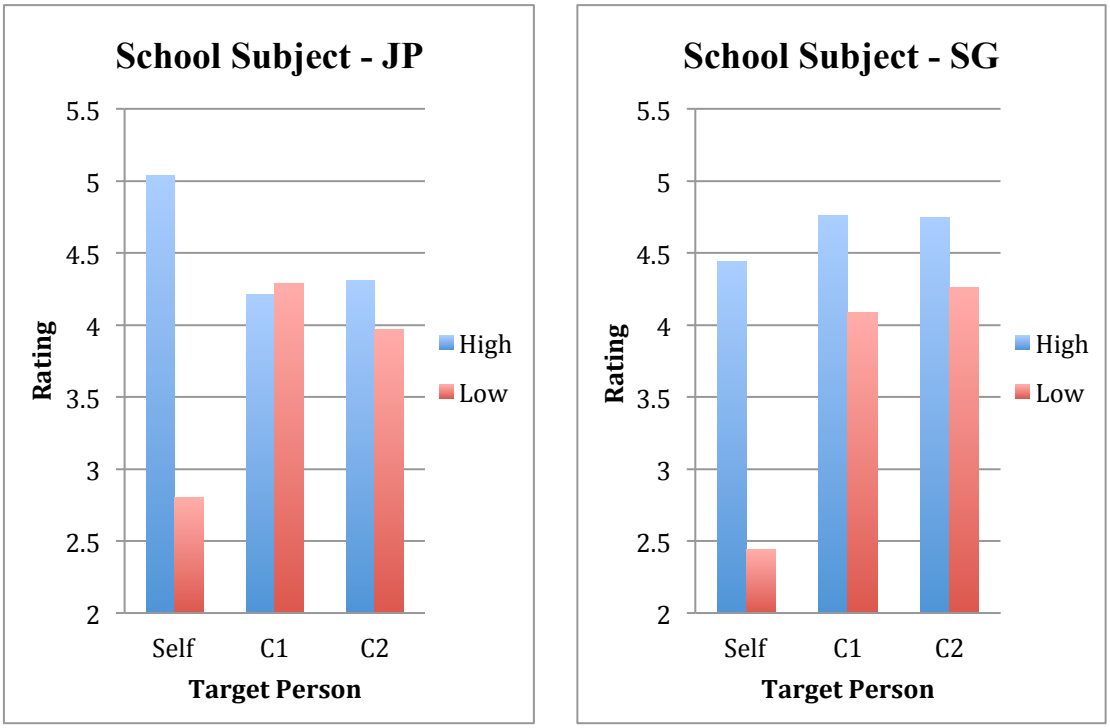


Figure 6. Student ratings of perceived performance of the self and two close others on a school subject the student designated as highly self-relevant (High) and one designated as low self-relevant (Low) to their self-definition. Clear evidence of the comparison and reflection process was evident for Japanese participants, but not for Singaporean participants as the self was rated lower than the Japanese participants' self.

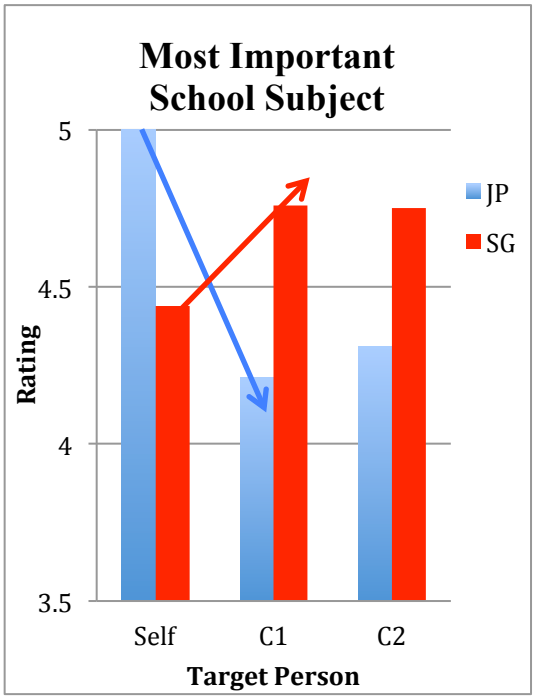


Figure 7. Student ratings of perceived performance of the self and two close others on a school subject rated as most important and the student designated the subject as highly self-relevant. A Cultural difference was detected in strategy choice.

Analysis

A 3x2x2 mixed design ANOVA revealed the main effect of target [$F(2, 424) = 40.183$, $p < .001$. $\eta_p^2 = .159$] and that of relevance [$F(1, 212) = 66.344$, $p < .001$. $\eta_p^2 = .238$] to be significant. The main effect of culture was not significant, $F(1, 212) = .016$, *ns*. An interaction effect between target and culture factors was significant, $F(2, 424) = 13.998$, $p < .001$. $\eta_p^2 = .062$. An interaction effect between relevance and culture factors was not significant, $F(1, 212) = 1.832$, *ns*. An interaction effect between target and relevance factors was significant, $F(2, 424) = 73.842$, $p < .001$. $\eta_p^2 = .258$. An interaction effect among target, relevance, and culture factors was significant, $F(2, 424) = 3.919$, $p = .021$. $\eta_p^2 = .018$.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 within subject design ANOVA. The Japanese data will be reported first. The simple main effect of the target was significant, $F(2, 266) = 5.797$, $p = .003$, $\eta_p^2 = .042$. The simple main effect of relevance was significant, $F(1, 133) = 30.745$,

p<*.001*, η_p^2=.188. An interaction effect between target and relevance factors was significant, *F*(2, 266) =70.306, *p*<.001. η_p^2=.346. For high relevance, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a difference between self and close other 1 (*p*<.001) and for close other 2 (*p*<.001), and no significant difference between close other 1 and close other 2 (*p*=.987). For low relevance, multiple pairwise comparisons using the Sidak method revealed a difference between self and close other 1 (*p*<.001) and for close other 2 (*p*<.001), and no significant difference between close other 1 and close other 2 (*p*=.348). There was a significant difference between the high relevant self and low relevant self of *p*<.001. There was no significant difference between the high relevant close other 1 and low relevant close other 1 (*p*=.533) and the same for close other 2 (*p*=.377).

Simple main effects were then examined for Singapore. The Mauchly's test of sphericity was significant (*p*=.040) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, *F*(1.853, 146.418) =39.477, *p*<*.001*, η_p^2=.333. The simple main effect of relevance was significant, *F*(1, 79) =36.225, *p*<*.001*, η_p^2=.314. An interaction effect between target and relevance factors was significant, *F*(2, 157.994) =19.676, *p*<.001. η_p^2=.199. For high relevance, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed no difference between self and close other 1 (*p*=.550) and a marginally significant difference for close other 2 (*p*=.087), and no significant difference between close other 1 and close other 2 (*p*=.566). For low relevance, multiple pairwise comparisons using the Sidak method revealed a difference between self and close other 1 (*p*<.001) and for close other 2 (*p*<.001), and no significant difference between close other 1 and close other 2 (*p*=.538). There was a significant difference between the high relevant self and low relevant self of *p*<.001, and close other 1 (*p*=.020) and for close other 2 (*p*=.016).

5.4.2. Ratings of Performance on Free-Time Activities

Students' ratings of their own perceived performance and those of two close schoolmates on a free-time activity that the student designated as highly self-relevant and one designated as low self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) x relevance of activity (HR vs LR) were within-subject variables and culture was a between subject variable. Descriptive statistics on ratings of performance on a free-time activity for high and low relevance are shown in Tables 6 & 7. See Figure 8.

Table 6. Means and Standard Deviation of Ratings on the Free-Time Activity Domain in Japan (*n*=298).

	HR		LR	
	M	*SD*	*M*	*SD*
Self	6.41	1.11	1.76	1.21
Close Other 1	4.85	1.42	3.45	1.40
Close Other 2	4.63	1.36	3.82	1.44

Table 7. Means and Standard Deviation of Ratings on the Free-Time Activity Domain in Singapore (*n*=215).

	HR		LR	
	M	*SD*	*M*	*SD*
Self	6.20	0.99	1.89	1.41
Close Other 1	4.75	1.30	3.25	1.61
Close Other 2	4.31	1.31	3.19	1.59

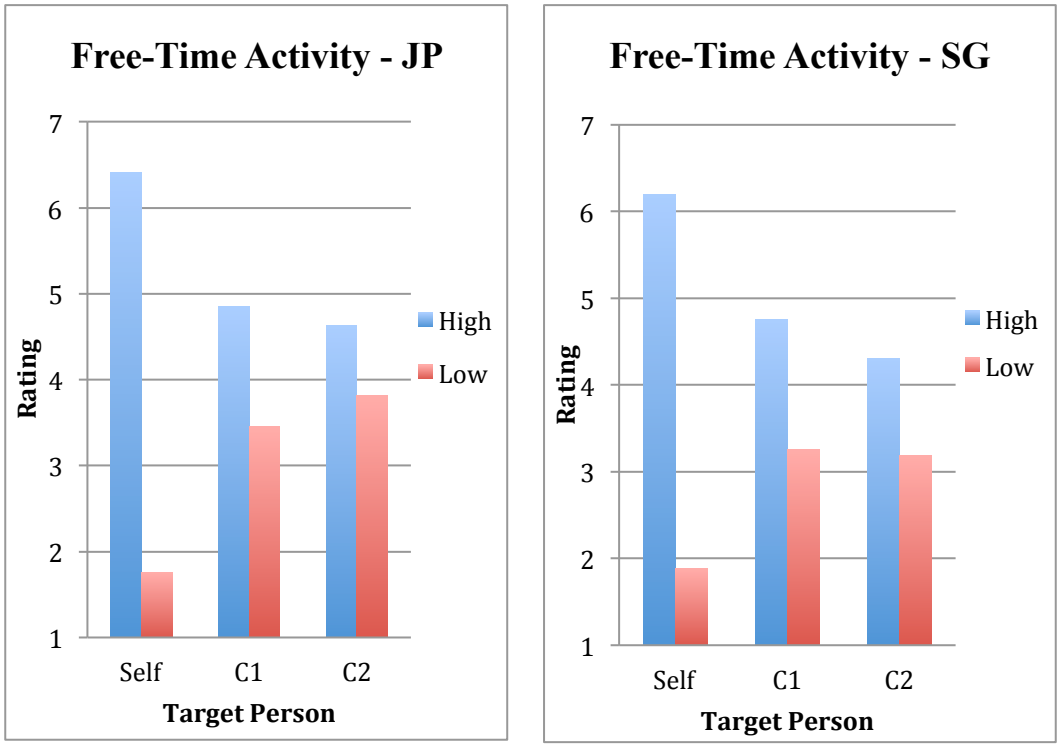


Figure 8. Student ratings of perceived performance of the self and two close others on a free-time activity the student designated as highly self-relevant (High) and one designated as low self-relevant (Low) to their self-definition. Clear evidence of the comparison and reflection process was evident for Japanese and Singaporean participants. This domain appears to be very important to the self.

Analysis

A 3x2x2 mixed design ANOVA revealed the main effect of target was not significant, $F(2, 704) = 1.170$, *ns*, but that of relevance was significant, $F(1, 352) = 931.177$, $p < .001$. $\eta_p^2 = .726$. The main effect of culture was significant, $F(1, 352) = 9.579$, $p = .002$. $\eta_p^2 = .026$. An interaction effect between target and culture factors was significant, $F(2, 704) = 8.091$, $p < .001$. $\eta_p^2 = .022$. An interaction effect between relevance and culture factors was not significant, $F(1, 352) = 2.225$, *ns*. An interaction effect between target and relevance factors was significant, $F(2, 704) = 500.523$, $p < .001$. $\eta_p^2 = .587$. An interaction effect among target, relevance, and culture factors was significant, $F(2, 704) = 3.583$, $p = .028$. $\eta_p^2 = .010$.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 within subject design ANOVA. The Japanese data will be

reported first. The simple main effect of the target was marginally significant, $F(2, 338) = 2.515$, $p = .082$, $\eta_p^2 = .015$. The simple main effect of relevance was significant, $F(1, 169) = 558.478$, $p < .001$, $\eta_p^2 = .768$. An interaction effect between target and relevance factors was significant, $F(2, 338) = 275.180$, $p < .001$. $\eta_p^2 = .620$. For high relevance, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a difference between self and close other 1 ($p < .001$) and for close other 2 ($p < .001$), and between close other 1 and close other 2 ($p = .025$). For low relevance, multiple pairwise comparisons using the Sidak method revealed a difference between self and close other 1 ($p < .001$) and for close other 2 ($p < .001$), and between close other 1 and close other 2 ($p = .017$). There was a significant difference between the high relevant self and low relevant self of $p < .001$, and between the high relevant close other 1 and low relevant close other 1 ($p < .001$) and for close other 2 ($p < .001$).

Simple main effects were then examined for Singapore. The simple main effect of the target was significant, $F(2, 366) = 6.669$, $p = .001$, $\eta_p^2 = .035$. The simple main effect of relevance was significant, $F(1, 183) = 409.636$, $p < .001$, $\eta_p^2 = .691$. An interaction effect between target and relevance factors was significant, $F(2, 366) = 225.032$, $p < .001$. $\eta_p^2 = .552$. For high relevance, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a difference between self and close other 1 ($p < .001$) and for close other 2 ($p < .001$), and for close other 1 and close other 2 ($p < .001$). For low relevance, multiple pairwise comparisons using the Sidak method revealed a difference between self and close other 1 ($p < .001$) and for close other 2 ($p < .001$), and no significant difference between close other 1 and close other 2 ($p = .997$). There was a significant difference between the high relevant self and low relevant self of $p < .001$, and close other 1 ($p < .001$) and for close other 2 ($p < .001$).

5.4.3. Ratings of Performance on Most and Least Desired Identity Trait

Students' ratings on his or herself and two close schoolmates on the most and least desired identity trait that the student designated as highly self-relevant and one designated as low self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) x relevance of activity (HR vs LR) were within-subject variables and culture was a between subject variable. Descriptive statistics on ratings of value for a identity domain designated as high and low relevance are shown in Tables 8 & 9. See Figure 9.

Table 8. Means and Standard Deviation of Ratings on Most and Least Desired Identity Traits in Japan (n=301).

	HR		LR	
	M	*SD*	*M*	*SD*
Self	5.14	1.46	2.29	1.25
Close Other 1	4.97	1.37	3.12	1.67
Close Other 2	5.34	1.64	3.23	1.82

Table 9. Means and Standard Deviation of Ratings on Most and Least Desired Identity Traits in Singapore (n=243).

	HR		LR	
	M	*SD*	*M*	*SD*
Self	5.00	1.13	2.09	1.22
Close Other 1	5.20	1.19	3.28	1.58
Close Other 2	5.08	1.21	2.91	1.72

Figure 9. Student ratings of perceived performance of the self and two close others on a desired identity trait the student designated as highly self-relevant (High) and one designated as low self-relevant (Low) to their self-definition. The reflection process was evident, but not the comparison process.

Analysis

A 3x2x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.710, 449.764) =48.508, p<.001. η_p^2=.156] and that of relevance, F(1, 263) =564.230, p<.001. η_p^2=.682. The main effect of culture was not significant, F(1, 263)=.014, *ns*. An interaction effect between target and culture factors was significant, F(1.710, 449.764) =3.880, p=.027. η_p^2=.015. An interaction effect between relevance and culture factors was not significant, F(1, 263) =2.223, *ns*. An interaction effect between target and relevance factors was significant, F(1.778, 467.579) =26.428, p<.001. η_p^2=.091. An interaction effect among target, relevance, and culture factors was not significant, F(1.778, 467.579) =.579, *ns*.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 within subject design ANOVA. The Japanese data will be reported first. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, F(1.619, 170.013) =17.655, p<*.001*, η_p^2=.144. The simple main effect of relevance was significant, F(1, 105) =183.756, p<*.001*, η_p^2=.636. An interaction effect between target and relevance factors was significant, F(1.635, 171.700) =7.644, p=.001. η_p^2=.068. For high relevance, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed no difference between self and close other 1 (p=.763) and for close other 2 (p=.168), and marginally significant between close other 1 and close other 2 (p=.070). For low relevance, multiple pairwise comparisons using the Sidak method revealed a difference between self and close other 1 (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.887). There was a significant difference between the high relevant self and low relevant self of p<.001, and between the high relevant close other 1 and low relevant close other 1 (p<.001), and for high and low relevant close other 2 (p<.001).

Simple main effects were then examined for Singapore. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, F(1.777, 280.698) =38.914, p<*.001*, η_p^2=.198. The simple main effect of relevance was significant, F(1, 158) =434.016, p<*.001*, η_p^2=.733. An interaction effect between target and relevance factors was significant, F(1.866, 294.856) =22.467, p<.001. η_p^2=.124. For high relevance, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed no difference between self and close other 1 (p=.157) and for close other 2 (p=.896), and between close other 1 and close other 2 (p=.268). For low relevance, multiple pairwise

comparisons using the Sidak method revealed a difference between self and close other 1 (p<.001) and for close other 2 (p<.001), and between close other 1 and close other 2 (p=.003). There was a significant difference between the high relevant self and low relevant self of p<.001, and close other 1 (p<.001) and for close other 2 (p<.001).

5.4.4. Ratings of Performance on Club/Team Activity

Students' ratings of their own perceived performance and those of two close schoolmates on a club/team activity that the student designated as highly self-relevant and one designated as low self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) x relevance of activity (HR vs LR) were within-subject variables and culture was a between subject variable. Descriptive statistics on ratings of performance on a club/team activity for high and low relevance are shown in Tables 10 & 11. See Figures 10 & 11.

Table 10. Means and Standard Deviation of Ratings on the Club/Team Activity in Japan (*n*=274).

	HR		LR	
	M	*SD*	*M*	*SD*
Self	6.27	1.18	1.53	1.13
Close Other 1	4.39	1.49	3.42	1.24
Close Other 2	3.99	1.56	2.71	1.70

Table 11. Means and Standard Deviation of Ratings on the Club/Team Activity in Singapore (*n*=187).

	HR		LR	
	M	*SD*	*M*	*SD*
Self	5.35	1.19	1.54	1.19
Close Other 1	3.73	1.70	2.41	1.54
Close Other 2	3.36	1.69	2.64	1.65

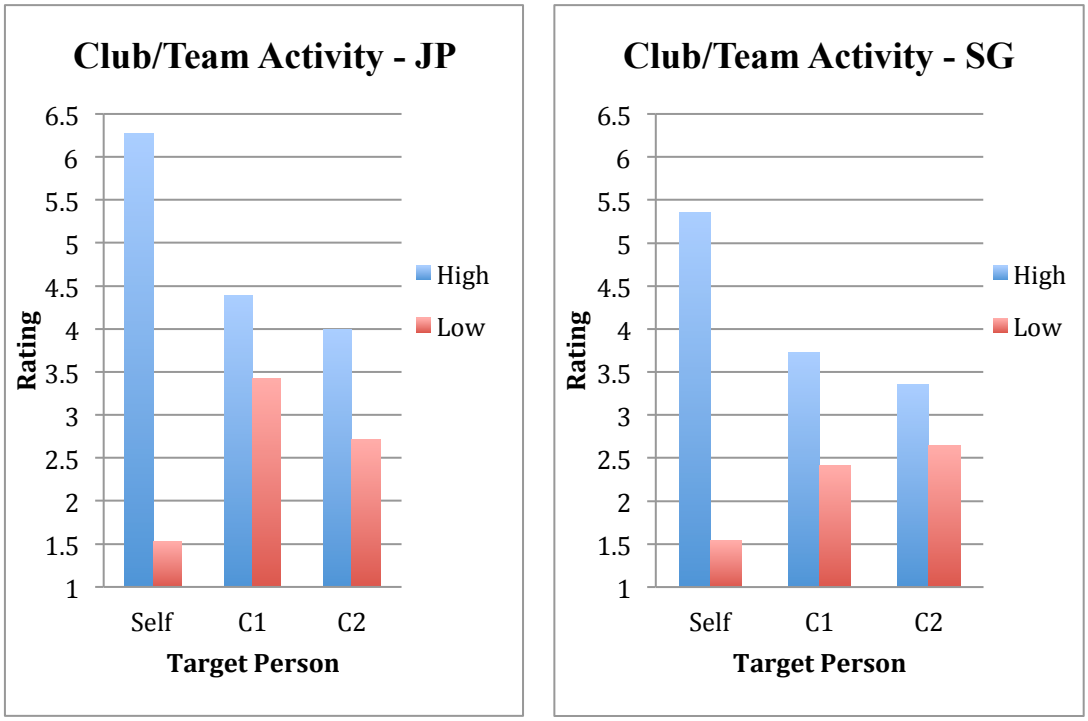


Figure 10. Student ratings of perceived performance of the self and two close others on a club/team activity the student designated as highly self-relevant (High) and one designated as low self-relevant (Low) to their self-definition. Clear evidence of the comparison and reflection process was evident for Japanese and Singaporeans, even more so for Japanese participants.

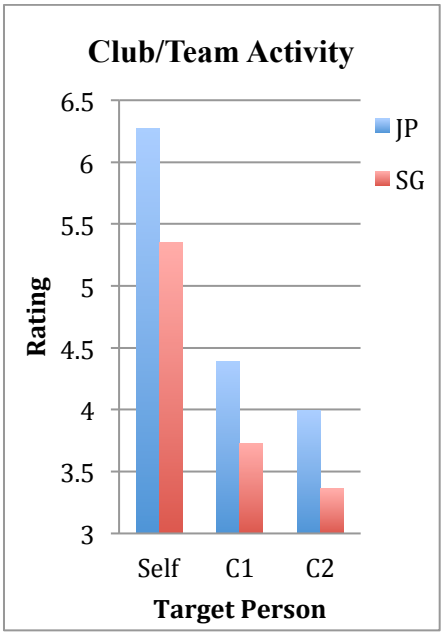


Figure 11. Student ratings of perceived performance of the self and two close others on a club/team activity rated as most important and the student designated the subject as highly self-relevant. Japanese rate this domain higher or with more value than Singaporeans although strategy choice is similar.

Analysis

A 3x2x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target [F(1.958, 561.846) =37.426, p<.001. η_p^2=.115] and that of relevance [F(1, 287) =598.813, p<.001. η_p^2=.676] to be significant. The main effect of culture was significant as well, F(1, 287) =27.230, p<.001. η_p^2=.087. An interaction effect between target and culture factors was significant, F(1.958, 561.846) =7.670, p=.001. η_p^2=.026. An interaction effect between relevance and culture factors was not significant, F(1, 287) =1.807, *ns*. An interaction effect between target and relevance factors was significant, F(1.923, 551.799) =388.374, p<.001. η_p^2=.575. An interaction effect among target, relevance, and culture factors was significant, F(1.923, 551.799) =15.536, p<.001. η_p^2=.051.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 within subject design ANOVA. The Japanese data will be reported first. The simple main effect of the target was significant, F(2, 240) =31.746, *p<.001*, η_p^2=.209. The simple main effect of relevance was significant, F(1, 120) =295.229, *p<.001*, η_p^2=.711. An interaction effect between target and relevance factors was significant, F(2, 240) =255.818, p<.001. η_p^2=.681. For high relevance, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a difference between self and close other 1 (p<.001) and for close other 2 (p<.001), and marginally significant between close other 1 and close other 2 (p=.050). For low relevance, multiple pairwise comparisons using the Sidak method revealed a difference between self and close other 1 (p<.001) and for close other 2 (p<.001), and between close other 1 and close other 2 (p<.001). There was a significant difference between the high relevant self and low

relevant self of $p<.001$, and between the high relevant close other 1 and low relevant close other 1 ($p<.001$) and that for high and low relevant close other 2 ($p<.001$).

Simple main effects were then examined for Singapore. The Mauchly's test of sphericity was significant ($p=.05$) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, $F(1.923, 321.161) =15.980$, $p<.001$, $\eta_p^2=.087$. The simple main effect of relevance was significant, $F(1, 167) =312.781$, $p<.001$, $\eta_p^2=.652$. An interaction effect between target and relevance factors was significant, $F(1.908, 318.699) =160.421$, $p<.001$. $\eta_p^2=.490$. For high relevance, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a significant difference between self and close other 1 ($p<.001$) and for close other 2 ($p<.001$), and a marginally significant difference between close other 1 and close other 2 ($p=.051$). For low relevance, multiple pairwise comparisons using the Sidak method revealed a difference between self and close other 1 ($p<.001$) and for the self and close other 2 ($p<.001$), and no significant difference between close other 1 and close other 2 ($p=.260$). There was a significant difference between the high relevant self and low relevant self of $p<.001$, and close other 1 ($p<.001$) and for close other 2 ($p<.001$).

5.5. Significant Evidence of the Secondary Reflection Process

In the following section of the analysis, students' ratings of their own perceived performance and those of two close schoolmates on the ability or possession of the domain in question, that the student designated as highly self-relevant, and the secondary reflection process strategy was applied by at least one culture are examined. Ratings of perceived performance were analyzed by analyses of variance (ANOVAs). A 3x2 mixed design ANOVA was conducted. Target person (self, close other 1, and close other 2) was the within-subject variable x Culture (Japan and Singapore), which was a between-subject variable. In the following figures, HR stands for highly self-relevant.

SERM Model's Predicted Pathways for Highly Self-Relevant Domains

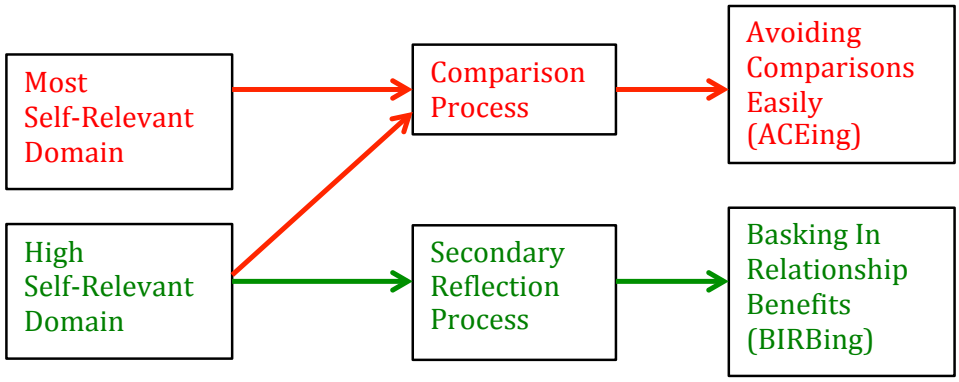


Figure 12. Strategy choice posited to be taken by the SERM model on most self-relevant domains and high self-relevant domains. Domains in which participants choose the secondary reflection process are not posited to be core or most highly self-relevant, but are very important to maintaining a meaningful and positive self through relationship maintenance.

5.5.1. Overall Academic Ability

Students' ratings of their own perceived performance and those of two close schoolmates on overall academic ability that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on overall academic ability for the high self-relevance domain are shown in Table 12. See Figure 13.

Table 12. Means and Standard Deviation of Ratings on Overall Academic Ability by Japanese on Left (n=220), Singaporeans on Right (n=231).

JP	HR	
	M	*SD*
Self	4.08	1.35
Close Other 1	5.09	1.45
Close Other 2	4.94	1.32

SG	HR	
	M	*SD*
Self	4.48	0.86
Close Other 1	5.18	1.05
Close Other 2	5.22	1.11

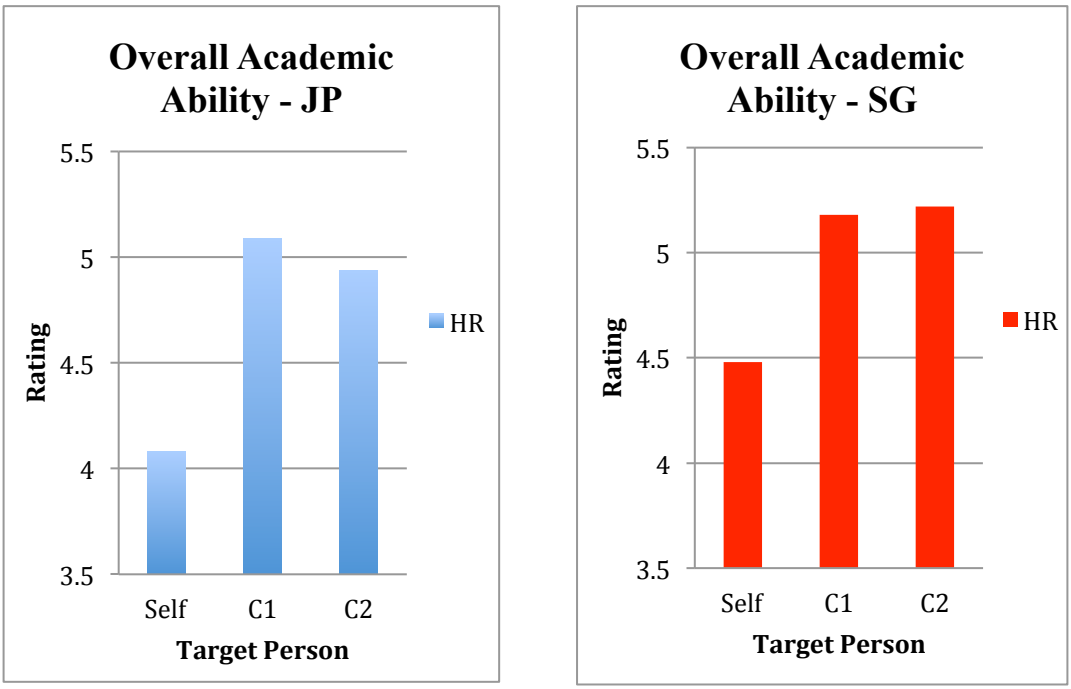


Figure 13. Student ratings of perceived performance of the self and two close others on overall academic ability, which the student designated as highly self-relevant to their self-definition. Clear evidence of the secondary reflection process was evident in both cultures on this domain. Adolescents appear to perceive their friends as better at overall academics.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.950, 803.458) =124.866, p<.001. η_p^2=.233. The main effect of culture was significant, F(1, 412) =8.586, p=.004. η_p^2=.020. An interaction effect between target and culture factors was significant, F(1.950, 803.458) =5.498, p=.005. η_p^2=.013.

The Japanese data will be reported first. Japanese participants rated the self and close other 1 (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.112). Singaporean participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.932). There was a significant difference between Japanese and Singaporean ratings on the self (p<.001), and no significant difference for close other 1 (p<.589) and a significant difference for close other 2 (p=.020).

5.5.2. Fashion Sense

Students' ratings of their own perceived performance and those of two close schoolmates on being fashionable that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on being fashionable for the high self-relevance domain are shown in Table 13. See Figures 14 & 15.

Table 13. Means and Standard Deviation of Ratings on being Fashionable by Japanese on Left (n=181), and Singaporeans on Right (n=107).

JP	HR	
	M	*SD*
Self	3.99	1.22
Close Other 1	4.85	1.42
Close Other 2	4.75	1.32

SG	HR	
	M	*SD*
Self	4.95	1.11
Close Other 1	4.28	1.20
Close Other 2	3.94	1.12

Figure 14. Student ratings of perceived performance of the self and two close others on being fashionable, which the student designated as highly self-relevant to their self-definition. Clear evidence of the secondary reflection process was evident for Japanese participants, but the opposite strategy, the comparison process, was employed for Singaporean participants on this domain.

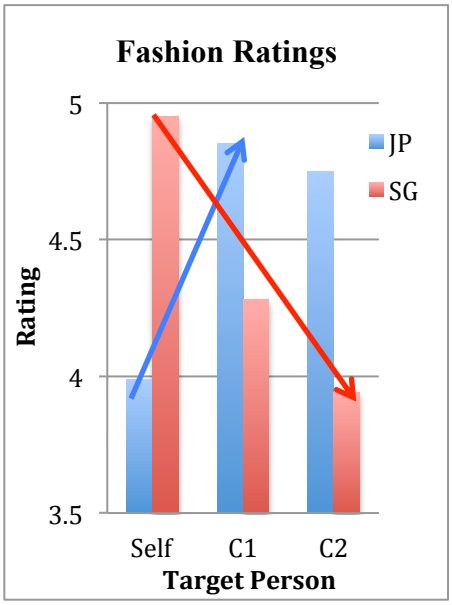


Figure 15. Student ratings of perceived performance of the self and two close others on being fashionable, which the student designated as highly self-relevant to their self-definition. Cultural difference detected in strategy choice. Japan in blue and Singapore in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The ANOVA revealed the main effect of target was significant, $F(2, 532) = 3.176$, $p = .043$. $\eta_p^2 = .012$. The main effect of culture was not significant, $F(1, 266) = .887$, *ns*. An interaction effect between target and culture factors was significant, $F(2, 532) = 63.925$, $p < .001$. $\eta_p^2 = .194$.

Japanese participants rated the self and close other 1 significantly different ($p < .001$) and for close other 2 ($p < .001$), and no significant difference between close other 1 and close other 2 ($p = .844$). Singaporean participants rated the self and close other 1 significantly different ($p < .001$) and for close other 2 ($p < .001$), and marginally significantly different between close other 1 and close other 2 ($p = .053$). There was a significant difference between Japanese and Singaporean ratings on the self ($p < .001$), and significant difference for close other 1 ($p = .001$) and close other 2 ($p < .001$).

5.5.3. Humor

Students' ratings of their own perceived performance and those of two close schoolmates on being humorous that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on being Humorous for the high self-relevance domain are shown in Table 14. See figures 16 & 17.

Table 14. Means and Standard Deviation of Ratings on Being Humorous by Japanese on Left (*n*=217), and Singaporeans on Right (*n*=226).

JP	HR	
	M	*SD*
Self	4.25	1.47
Close Other 1	5.39	1.35
Close Other 2	5.22	1.46

SG	HR	
	M	*SD*
Self	5.12	1.51
Close Other 1	5.34	1.36
Close Other 2	5.25	1.39

Figure 16. Student ratings of perceived performance of the self and two close others on humor, which the student designated as highly self-relevant to their self-definition. Clear evidence of the secondary reflection process was evident for Japanese participants, but not for Singaporean participants.

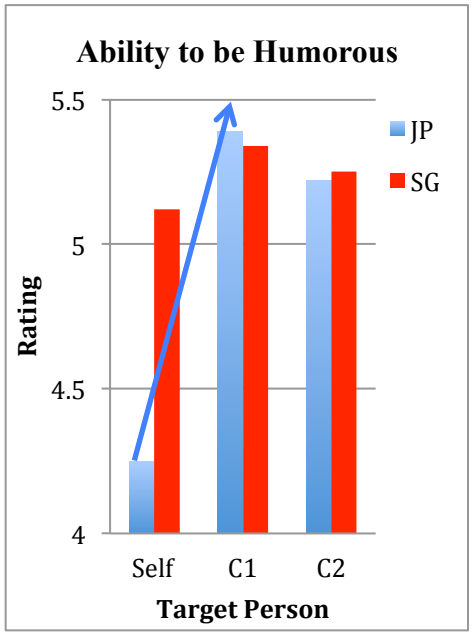


Figure 17. Student ratings of perceived performance of the self and two close others on being humorous, which the student designated as highly self-relevant to their self-definition. Cultural difference detected. Japan in blue and Singapore in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.822, 719.504) =29.975, p<.001. η_p^2=.071. The main effect of culture was significant, F(1, 395) =10.796, p=.001. η_p^2=.027. An interaction effect between target and culture factors was significant, F(1.822, 719.504) =18.724, p<.001. η_p^2=.045.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.370). Singaporean participants did not rate the target person significantly different as they rated the self and close other 1 (p=.489) and for close other 2 (p=.938), and close other 1 and close other 2 (p=.739). There was a significant difference between Japanese and Singaporean ratings on the self (p<.001), and no significant difference for close other 1 (p=.804) and close other 2 (p=.814).

5.5.4. Being Rebellious

Students' ratings of their own perceived performance and those of two close schoolmates on being rebellious, which the student designated as lowly self-relevant (rating the domain with a 1 or 2) were analyzed. This due to "being rebellious" was considered a low self-relevant domain. Descriptive statistics on ratings of performance on being rebellious for the high (ratings of 6 or 7, out of a scale of 1 to 7) and low self-relevance ratings (ratings of 6 or 7, out of a scale of 1 to 7) are shown in Tables 15 & 16. See Figure 18.

Table 15. Means and Standard Deviation of Ratings on Being Rebellious in Japan (HR *n*=69, LR *n*=77), Who Answered with a 6 or 7 (HR) and Those Who Answered with a 1 or 2 (LR). Out of a Scale of 1 to 7.

JP	HR		LR	
	M	*SD*	*M*	*SD*
Self	4.46	0.95	1.62	0.95
Close Other 1	4.92	1.73	2.72	1.73
Close Other 2	4.91	1.60	2.75	1.60

Table 16. Means and Standard Deviation of Ratings on Being Rebellious in Singapore (HR *n*=19, LR *n*=159), Who Answered with a 6 or 7 (HR) and Those Who Answered with a 1 or 2 (LR) Out of a Scale of 1 to 7.

SG	HR		LR	
	M	*SD*	*M*	*SD*
Self	5.52	1.17	2.24	1.26
Close Other 1	4.16	2.01	2.33	1.46
Close Other 2	3.72	1.93	2.10	1.29

Figure 18. Student ratings of perceived performance of the self and two close others on being rebellious, which the student designated as lowly self-relevant to their self-definition. Clear evidence of the secondary reflection process was evident for Japanese participants, but not for Singaporean participants.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.882, 378.190)=16.278, p<.001. η_p^2=.075. The main effect of culture was not significant, F(1, 201) =1.644, *ns*. An interaction effect between target and culture factors was significant, F(1.882, 378.190) =13.270, p<.001. η_p^2=.062.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=1). Singaporean participants did not rate the target person significantly different as they rated the self and close other 1 (p=.587) and for close other 2 (p=.955), and close other 1 and close other 2 (p=.175). There was a significant difference

between Japanese and Singaporean ratings on the self (p=.007), and marginally significantly different for close other 1 (p=.066) and significant for close other 2 (p=.002).

5.5.5. Wealth

Students' ratings of their own perceived performance and those of two close schoolmates on being wealthy that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on being wealthy for the high self-relevance domain are shown in Table 17. See figures 19 & 20.

Table 17. Means and Standard Deviation of Ratings on Amount of Wealth by Japanese on Left (n=228) and Singaporeans on Right (n=147).

JP	HR	
	M	*SD*
Self	3.83	1.53
Close Other 1	5.23	1.42
Close Other 2	5.36	1.32

SG	HR	
	M	*SD*
Self	4.11	1.45
Close Other 1	4.86	1.31
Close Other 2	5.07	1.28

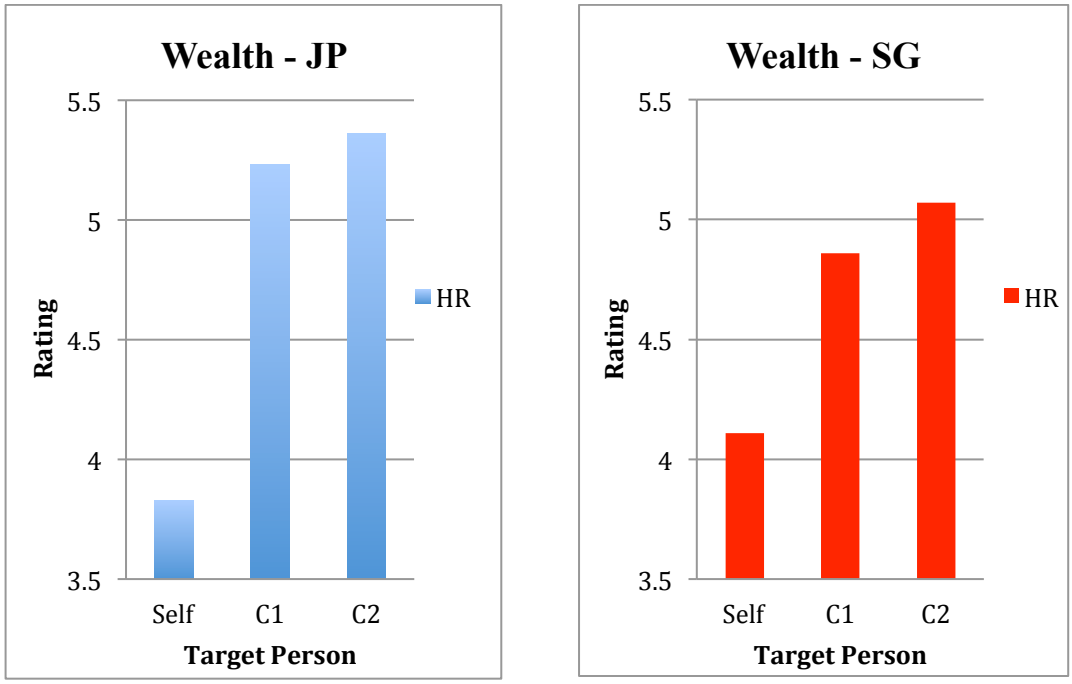


Figure 19. Student ratings of perceived amount of wealth for the self and two close others, which the student designated as highly self-relevant to their self-definition. Clear evidence of the secondary reflection process was evident in both cultures. Adolescents appear to perceive their friends as wealthier.

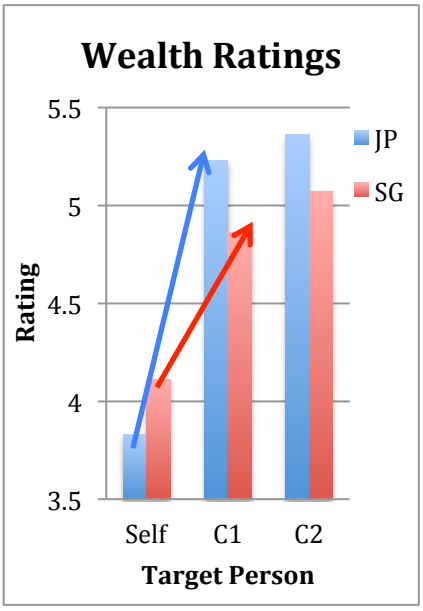


Figure 20. Student ratings of perceived performance of the self and two close others on amount of wealth, which the student designated as highly self-relevant to their self-definition. Japan in blue and Singapore in red. Japanese perceive his or her friends to be wealthier than the self more so, than do Singaporeans. Note arrow size.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.688, 565.424) =99.661, p<.001. η_p^2=.229. The main effect of culture was not significant, F(1, 335) =1.602, *ns*. An interaction effect between target and culture factors was significant, F(1.688, 565.424) =5.619, p=.006. η_p^2=.016.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.386). Singaporean participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.199). There was no significant

difference between Japanese and Singaporean ratings on the self (p=.183), and a significant difference for close other 1 (p=.023) and close other 2 (p=.048).

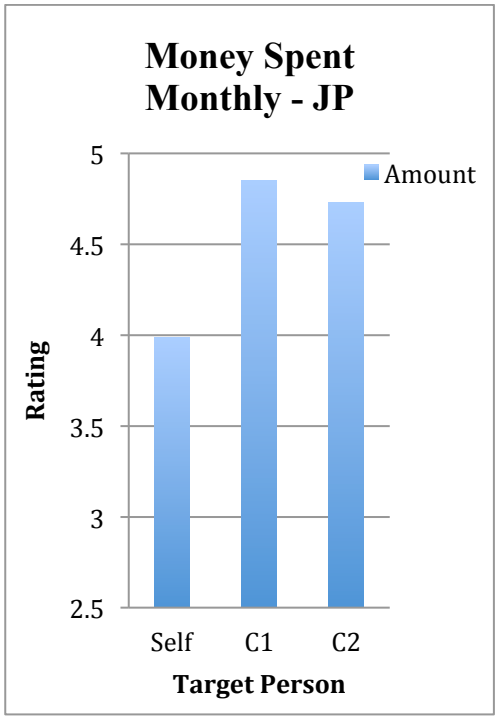
5.5.6. Money Spent Monthly

Students' ratings of their own perceived performance and those of two close schoolmates on money spent monthly were examined. Descriptive statistics on ratings of performance on money spent monthly for the domain are shown in Table 18. See Figures 21 & 22.

Table 18. Means and Standard Deviation of Ratings on Money Spent Monthly by Japanese on Left (n=244), and Singaporeans on Right (n=295).

JP	Rating	
	M	*SD*
Self	3.99	1.68
Close Other 1	4.85	1.52
Close Other 2	4.73	1.60

SG	Rating	
	M	*SD*
Self	2.76	1.24
Close Other 1	3.73	1.41
Close Other 2	3.61	1.52



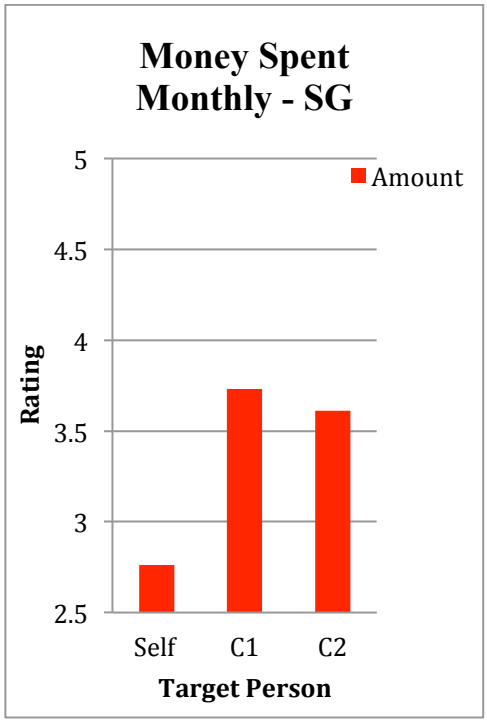


Figure 21. Student ratings of the self and two close others on money spent monthly. Clear evidence of the secondary reflection process was evident for both cultures. Adolescents appear to perceive their friends as wealthier, or having more money to spend, especially for the Japanese participants.

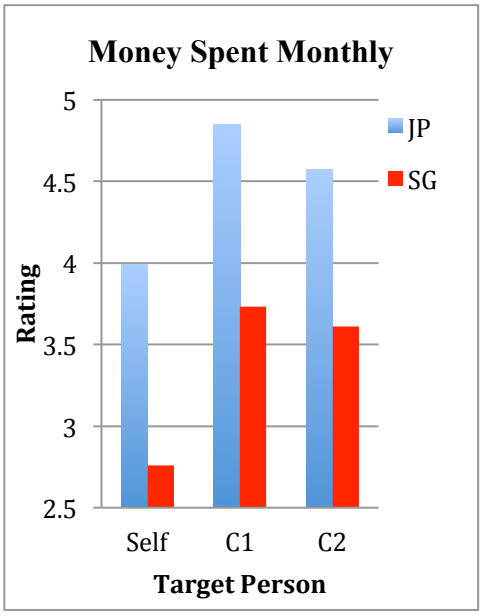


Figure 22. Ratings of perceived performance of the self and two close others on money spent monthly. Cultural difference detected. Japan is in blue and Singapore is in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.915, 1024.603) =87.375, p<.001. η_p^2=.140. The main effect of culture was significant, F(1, 535) =131.158, p<.001. η_p^2=.197. An interaction effect between target and culture factors was not significant, F(1.915, 1024.603) =1.628, *ns*.

The main effect of culture was significant. Japanese rated the amount of money spent monthly significantly higher than Singaporeans. There was significant difference between Japanese and Singaporean ratings on the self and close other 1 (p<.001), and a significant difference for self and close other 2 (p<.001) and a significant difference between close other 1 and close other 2 (p=.009).

5.5.7. Cooperation

Students' ratings of their own perceived performance and those of two close schoolmates on being cooperative that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on being cooperative for the high self-relevance domain are shown in Table 19. See Figures 23 & 24.

Table 19. Means and Standard Deviation of Ratings on Being Cooperative by Japanese on Left (n=256) and Singaporeans on Right (n=235).

JP	HR	
	M	*SD*
Self	4.62	1.16
Close Other 1	5.06	1.18
Close Other 2	5.12	1.17

SG	HR	
	M	*SD*
Self	5.68	0.99
Close Other 1	5.22	1.30
Close Other 2	5.16	1.27

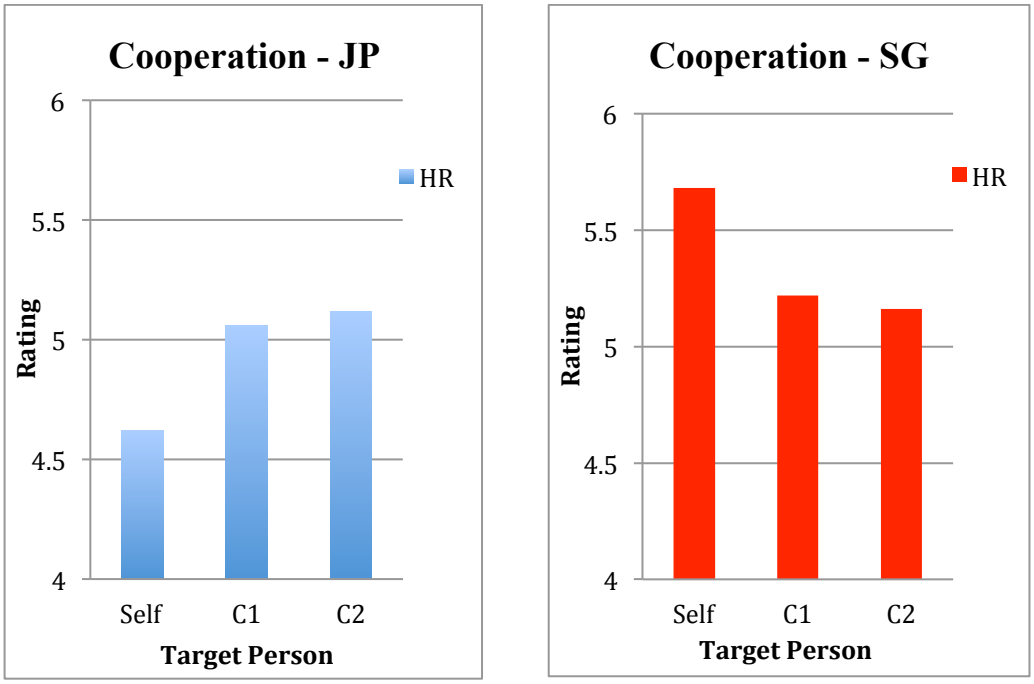


Figure 23. Student ratings of perceived performance of the self and two close others on being cooperative, which the student designated as highly self-relevant to their self-definition. Japanese participants significantly employed the secondary reflection process, while Singaporean participants significantly employed the comparison process.

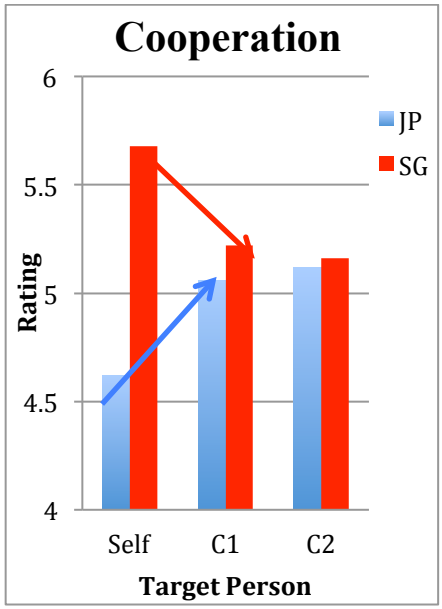


Figure 24. Student ratings of perceived performance of the self and two close others on being cooperative, and the student designated that trait as highly self-relevant. Cultural difference detected in strategy choice. Japan in blue and Singapore in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was not significant, F(1.957, 849.315) =081, *ns*. The main effect of culture was significant, F(1, 434) =24.453, p<.001. η_p^2=.053. An interaction effect between target and culture factors was significant, F(1.957,849.315) =39.715, p<.001. η_p^2=.084.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.866). Singaporean participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.941). There was significant

difference between Japanese and Singaporean ratings on the self (p<.001), and no significant difference for close other 1 (p=.140) and close other 2 (p=.490).

5.5.8. Good Personality

Students' ratings of their own perceived performance and those of two close schoolmates on having a good personality that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on having a good personality for the high self-relevance domain are shown in Table 20. See Figure 25.

Table 20. Means and Standard Deviation of Ratings on Having a Good Personality by Japanese on Left (n=195) and Singaporean on Right (n=261).

	HR	
	M	*SD*
Self	4.11	1.44
Close Other 1	5.09	1.31
Close Other 2	5.09	1.32

SG	HR	
	M	*SD*
Self	4.79	1.15
Close Other 1	5.57	1.08
Close Other 2	5.53	1.15

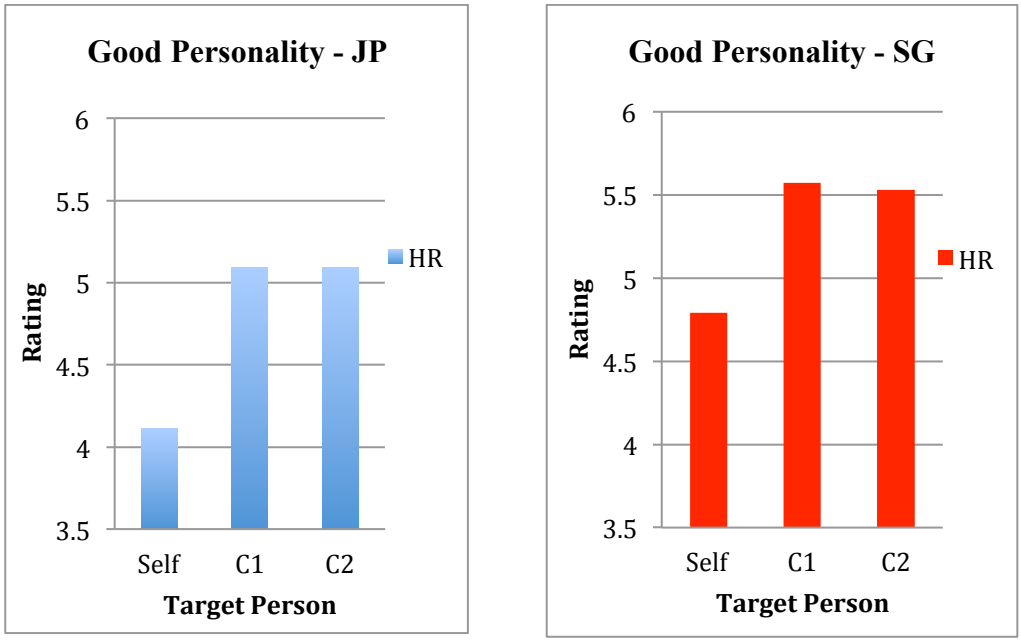


Figure 25. Student ratings of perceived performance of the self and two close others on having a good personality, which the student designated as highly self-relevant to their self-definition. Clear evidence of the secondary reflection process was evident in both cultures. Adolescents appear to perceive their friends as having a better personality them themself.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.719, 703.095)=82.766, p<.001. η_p^2=.168. The main effect of culture was significant, F(1, 409) =36.064, p<.001. η_p^2=.081. An interaction effect between target and culture factors was not significant, F(1.719, 703.095) =1.813, *ns*.

The main effect of culture was significant. Singaporean rated having a good personality significantly higher than Japanese. There was significant difference between Japanese and Singaporean ratings on the self and close other 1 (p<.001), and a significant difference for self and close other 2 (p<.001) and no significant difference between close other 1 and close other 2 (p=.897).

5.5.9. Good Mood

Students' ratings of their own perceived performance and those of two close schoolmates on having a good mood that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on having a good mood for the high self-relevance domain are shown in Table 21. See Figure 26.

Table 21. Means and Standard Deviation of Ratings on Having a Good Mood by Japanese on Left (n=243) and Singapore on Right (n=246).

JP	HR	
	M	*SD*
Self	4.72	1.42
Close Other 1	5.31	1.31
Close Other 2	5.11	1.40

SG	HR	
	M	*SD*
Self	4.96	1.45
Close Other 1	5.45	1.17
Close Other 2	5.43	1.25

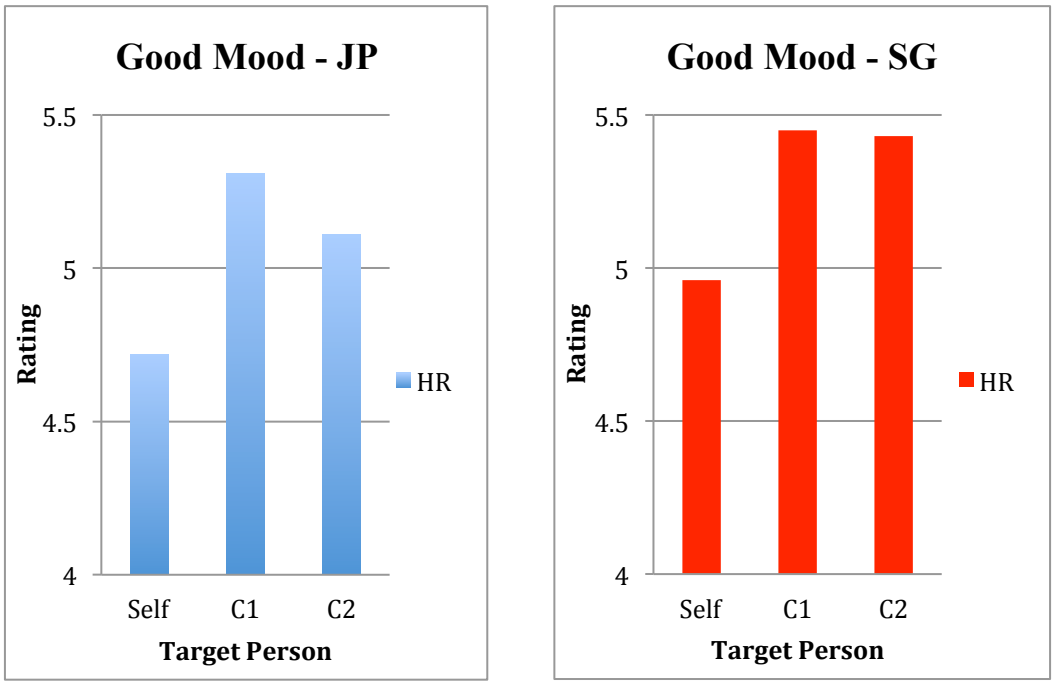


Figure 26. Student ratings of perceived performance of the self and two close others on having a good mood, which the student designated as highly self-relevant to their self-definition. Evidence of the secondary reflection process was evident in both cultures. Adolescents appear to perceive their friends as having an overall better mood.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.908, 828.094) =20.708, p<.001. η_p^2=.046. The main effect of culture was significant, F(1, 434) =6.540, p=.011. η_p^2=.015. An interaction effect between target and culture factors was not significant, F(1.908, 828.094) =.781, *ns*.

The main effect of culture was significant. Singaporean rated the importance of having a good mood higher than Japanese. There was significant difference between Japanese and Singaporean ratings on the self and close other 1 (p<.001), and a significant difference for self and close other 2 (p<.001) and no significant difference between close other 1 and close other 2 (p=.210).

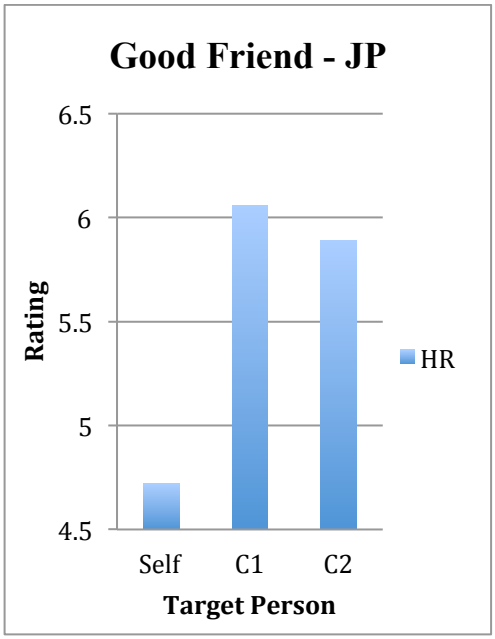
5.5.10. Good Friend

Students' ratings of their own perceived performance and those of two close schoolmates on being a good friend that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on being a good friend for the high self-relevance domain are shown in Table 22. See Figure 27 & 28.

Table 22. Means and Standard Deviation of Ratings on Being a Good Friend by Japanese on Left (n=327) and Singaporeans to Right (n=273).

JP	HR	
	M	*SD*
Self	4.72	1.17
Close Other 1	6.06	0.98
Close Other 2	5.89	1.10

SG	HR	
	M	*SD*
Self	5.23	0.86
Close Other 1	5.85	1.00
Close Other 2	5.61	1.08



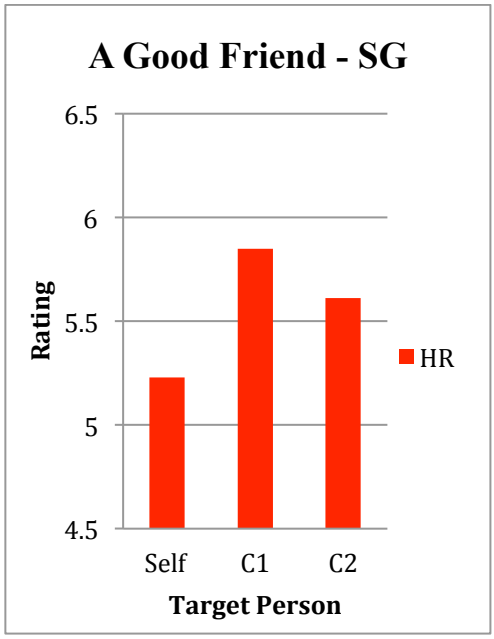


Figure 27. Student ratings of perceived performance of the self and two close others on being a good friend, which the student designated as highly self-relevant to their self-definition and was most commonly chosen as highly self-relevant. Evidence of the secondary reflection process was evident in both cultures. Adolescents perceived their friends as being a better friend.

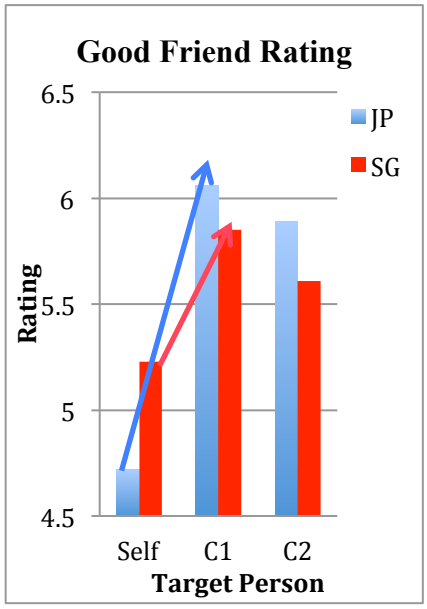


Figure 28. Student ratings of perceived performance of the self and two close others on being a good friend, which the student designated as highly self-relevant to their self-definition. Evidence of the secondary reflection process strategy was especially strong among the Japanese participants. The importance of "Being a Good Friend" was most commonly chosen as a highly self-relevant domain for Singaporeans and third most popular for Japanese participants.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.770, 828.554)=169.807, p<.001. η_p^2=.266. The main effect of culture was not significant, F(1, 468) =.316, *ns*. An interaction effect between target and culture factors was significant, F(1.770, 828.554) =36.819, p<.001. η_p^2=.073.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.118). Singaporean participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and close other 1 and close other 2 (p<.001). There is a significant difference between Japanese and Singaporean

ratings on the self (p<.001), and a marginally significant difference for close other 1 (p=.060) and significant for close other 2 (p=.005).

5.5.11. Most Important Friendship Characteristic

Students' ratings of their own perceived performance and those of two close schoolmates on possession of the most important friendship characteristic to the self. Descriptive statistics on ratings of performance on possession of the most important friendship characteristic to the self are shown in Table 23. See Figures 29 & 30.

Table 23. Means and Standard Deviation of Ratings on the Possession of the Most Important Friendship Characteristic to the Self by Japanese on Left (n=204) and Singaporeans to Right (n=179).

JP	HR	
	M	*SD*
Self	4.50	1.40
Close Other 1	5.31	1.39
Close Other 2	5.13	1.37

SG	HR	
	M	*SD*
Self	5.18	1.25
Close Other 1	5.27	1.41
Close Other 2	5.14	1.36

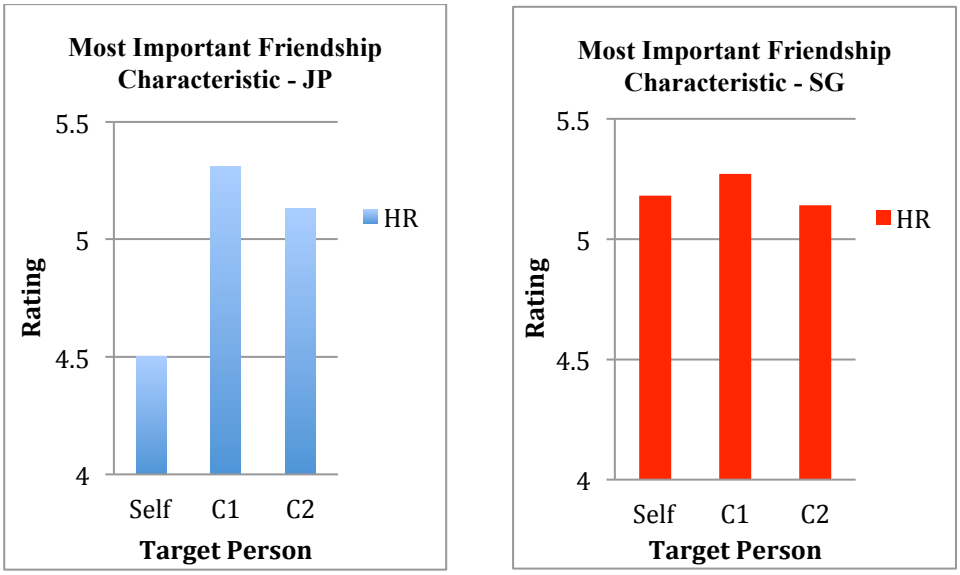


Figure 29. Student ratings of perceived performance of the self and two close others on possession of the most important friendship characteristic to the self. In this domain, Japanese participants employed the secondary reflection process in maintaining a positive self, but not the Singaporean participants.

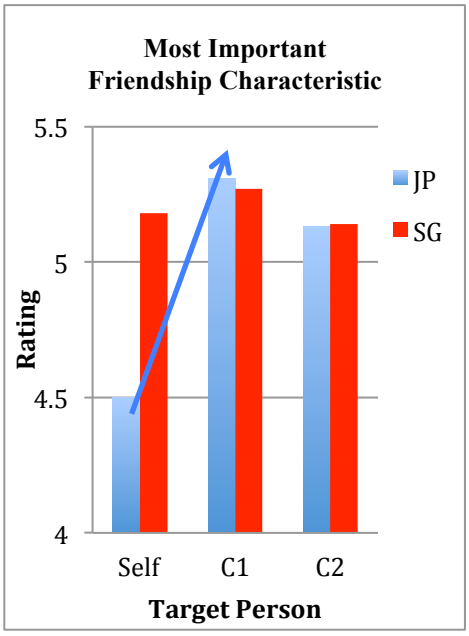


Figure 30. Student ratings of perceived performance of the self and two close others on possession of the most important friendship characteristic to the self. Japanese participants appear to have a stronger desire to support the friendship. Japan in blue and Singapore in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.671, 634.873) =13.856, p<.001. η_p^2=.035. The main effect of culture was significant, F(1, 308) =4.513, p=.034. η_p^2=.012. An interaction effect between target and culture factors was significant, F(1.671, 634.873) =18.860, p<.001. η_p^2=.028.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.103). Singaporean participants did not rate the target person significantly different as they rated the self and close other 1 (p=.912) and for close other 2 (p=.976), and close other 1 and close other 2 (p=.397). There was a significant difference between Japanese and Singaporean ratings on the self (p<.001), and no significant difference for close other 1 (p=.760) and close other 2 (p=.960).

5.5.12. Attractiveness

Students' ratings of their own perceived performance and those of two close schoolmates on being attractive that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on being attractive for the high self-relevance domain are shown in Table 24. See Figure 31.

Table 24. Means and Standard Deviation of Ratings on Being Attractive by Japanese on Left (n=262) and Singaporeans on Right (n=143).

JP	HR	
	M	*SD*
Self	3.87	1.38
Close Other 1	5.10	1.32
Close Other 2	4.90	1.37

SG	HR	
	M	*SD*
Self	4.20	1.32
Close Other 1	4.97	1.36
Close Other 2	5.28	1.37

Figure 31. Student ratings of perceived attractiveness of the self and two close others, which the student designated as highly self-relevant to their self-definition. Clear evidence of the secondary reflection process was evident in both cultures. Adolescents appear to perceive their friends as better looking.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.929, 673.315)=88.984, p<.001. η_p^2=.203. The main effect of culture was significant, F(1, 349) =4.826, p=.029. η_p^2=.014. An interaction effect between target and culture factors was significant, F(1.929, 673.315) =5.353, p=.005. η_p^2=.015.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.145). Singaporean participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and close other 1 and close other 2 (p<.031). There is a significant difference between Japanese and Singaporean ratings on the self (p=.008), and no significant difference for close other 1 (p=.619) and significant for close other 2 (p=.006).

5.5.13. Ability to get a Girlfriend/Boyfriend

Students' ratings of their own perceived performance and those of two close schoolmates on ability to get a girlfriend/boyfriend (GF/BF) that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on ability to get a girlfriend/boyfriend for the high self-relevance domain are shown in Table 25. See Figure 32.

Table 25. Means and Standard Deviation of Ratings on Ability to Get a Girlfriend/Boyfriend by Japanese on Left (n=188), and Singaporeans on Right (n=82).

JP	HR	
	M	*SD*
Self	4.31	1.46
Close Other 1	4.90	1.62
Close Other 2	4.67	1.42

SG	HR	
	M	*SD*
Self	4.18	1.21
Close Other 1	4.60	1.24
Close Other 2	4.86	1.43

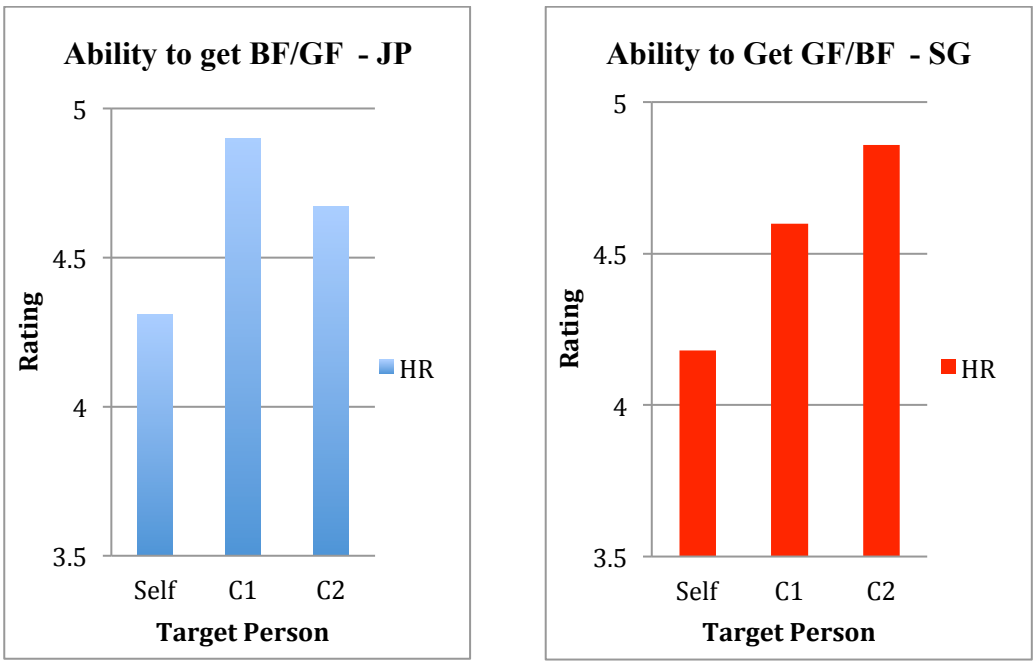


Figure 32. Student ratings of perceived performance of the self and two close others on ability to get a girlfriend/boyfriend, which the student designated as highly self-relevant to their self-definition. Clear evidence of the secondary reflection process was evident in both cultures. Adolescents appear to perceive their friends as more able at getting or making a boyfriend/girlfriend.

Analysis

A 3x2 mixed design ANOVA was conducted. The ANOVA revealed the main effect of target was significant, $F(2, 508) = 17.336$, $p < .001$. $\eta_p^2 = .064$. The main effect of culture was not significant, $F(1, 254) = .166$, *ns*. An interaction effect between target and culture factors was marginally significant, $F(2, 508) = 2.391$, $p = .093$. $\eta_p^2 = .009$.

Japanese participants rated the self and close other 1 significantly different ($p < .001$) and for close other 2 ($p = .002$), and no significant difference between close other 1 and close other 2 ($p = .218$). Singaporean participants rated the self and close other 1 significantly different ($p = .030$) and for close other 2 ($p = .001$), and not significant for close other 1 and close other 2 ($p = .415$). There was no significant difference between Japanese and Singaporean ratings on the self ($p = .687$), and no significant difference for close other 1 ($p = .150$) and for close other 2 ($p = .322$).

5.6. Significant Evidence of the Comparison Process

In the following section of the analysis, students' ratings of their own perceived performance and those of two close schoolmates on the ability or possession of the domain in question, that the student designated as highly self-relevant, and the comparison process strategy was applied, are examined. See Figure 33. Ratings of perceived performance were analyzed by analyses of variance (ANOVA). A 3x2 mixed design ANOVA was conducted. Target person (self, close other 1, and close other 2) was the within-subject variable x Culture (Japan and Singapore), which was a between-subject variable.

SERM Model's Predicted Pathways for Highly Self-Relevant Domains

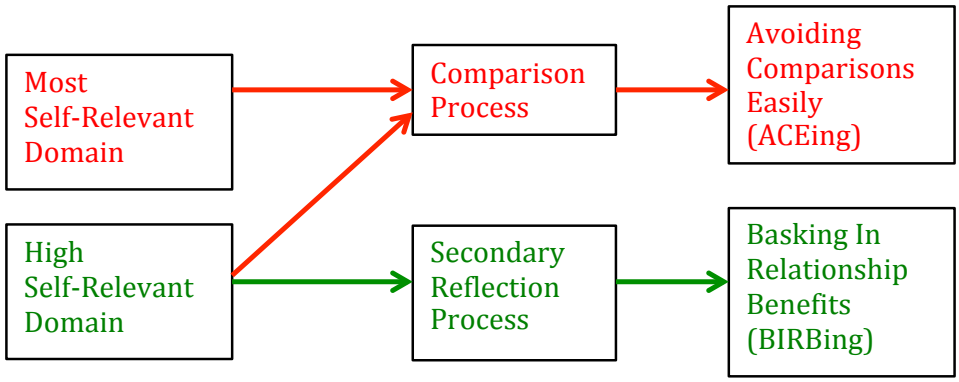


Figure 33. Strategy choice posited to be taken by the SERM model on most self-relevant domains and high self-relevant domains. Domains in which participants choose the comparison process are posited to be highly self-relevant and possibly core to the self. These domains are posited to be very important to maintaining a positive self not directly through relationship maintenance.

5.6.1. Important Positive Self-Identity Trait

Students' ratings of their own perceived performance and those of two close schoolmates on the most important positive self-identity trait that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on the most important positive self-identity trait for the high self-relevance domain are shown in Table 26. See Figures 34 & 35.

Table 26. Means and Standard Deviation of Ratings on the Most Important Positive Self-Identity Trait by Japanese on Left (n=146) and Singapore on Right (n=161).

JP	HR	
	M	*SD*
Self	5.48	1.30
Close Other 1	4.27	1.67
Close Other 2	4.51	1.67

SG	HR	
	M	*SD*
Self	5.29	1.19
Close Other 1	4.91	1.33
Close Other 2	4.61	1.42

Figure 34. Student ratings of perceived performance of the self and two close others on the most positive self-describing trait, which the student designated as highly self-relevant to their self-definition. Clear evidence of the comparison process was evident in both cultures, especially in Japan. Adolescents perceive their "self" as having a special positive self-identity trait, giving the self a niche against (not with) his or her closest others.

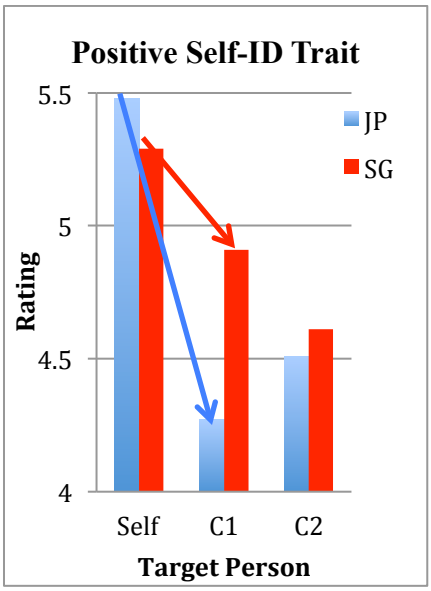


Figure 35. Student ratings of perceived performance of the self and two close others on the most positive self-describing trait, which the student designated as highly self-relevant to their self-definition. Cultural difference detected. Japan in blue and Singapore in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.722, 521.754) =36.636, p<.001. η_p^2=.108. The main effect of culture was marginally significant, F(1, 303) =3.150, p=.077. η_p^2=.010. An interaction effect between target and culture factors was significant, F(1.722, 521.754) =7.327, p=.001. η_p^2=.024.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.161). Singaporean participants rated the self and close other 1 marginally significantly different (p=.069) and significant for close other 2 (p<.001), and significant for close other 1 and close other 2 (p=.032). There was no significant difference between Japanese and Singaporean ratings on the self (p=.207), and significant difference for close other 1 (p<.001) and not significant for close other 2 (p=.540).

5.6.2. Contribute in Close Friends' Circle

Students' ratings of their own perceived performance and those of two close schoolmates on the self's special ability to contribute to the close friends circle that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on the self's special ability to contribute to the close friends circle for the high self-relevance domain are shown in Table 27. See Figure 36.

Table 27. Means and Standard Deviation of Ratings on the Self's Special Ability to Contribute to the Close Friends' Circle by Japanese on Left (*n*=112) and Singapore on Right (*n*=176).

	HR	
	M	*SD*
Self	5.46	1.19
Close Other 1	4.49	1.66
Close Other 2	4.68	1.49

SG	HR	
	M	*SD*
Self	5.83	0.78
Close Other 1	4.73	1.04
Close Other 2	4.61	1.11

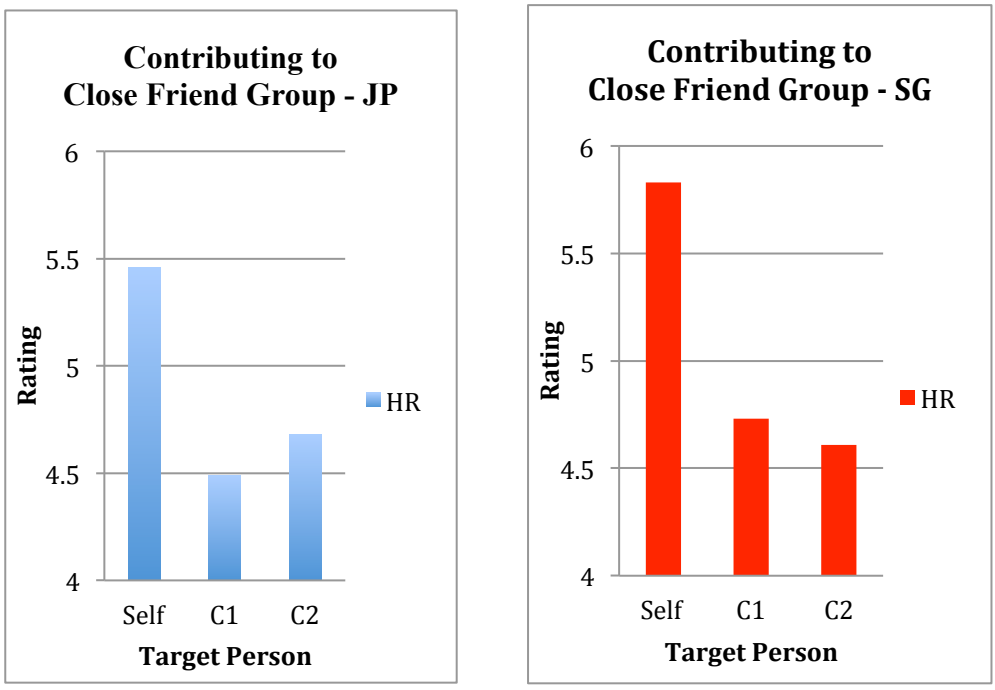


Figure 36. Student ratings of perceived performance of the self and two close others on the self's special ability to contribute to the close friends circle, which the student designated as highly self-relevant to their self-definition. Clear evidence of the comparison process was evident in both cultures, especially in Singapore. Adolescents report perceiving their self as having a special contributing ability to their close friend group, giving the self a niche against (not with) their close others.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.895, 538.146) =96.536, p<.001. η_p^2=.254. The main effect of culture was marginally significant, F(1, 284) =3.007, p=.084. η_p^2=.010. An interaction effect between target and culture factors was significant, F(1.895, 538.146) =3.568, p=.031. η_p^2=.012.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.283). Singaporean participants rated the self and close other 1 significantly different (p<.001) and significant for close other 2 (p<.001), and not

significant for close other 1 and close other 2 (p=.440). There was a significant difference between Japanese and Singaporean ratings on the self (p=.002), and not a significant difference for close other 1 (p=.120) and not significant for close other 2 (p=.680).

5.6.3. Domain of Great Pride

Students' ratings of their own perceived performance and those of two close schoolmates on a domain of great pride were examined. Descriptive statistics on ratings of performance on a domain of great pride are shown in Table 28. See Figure 37.

Table 28. Means and Standard Deviation of Ratings on a Domain of Great Pride by Japanese on Left (n=183) and Singaporeans on Right (n=292).

JP	HR	
	M	*SD*
Self	5.93	1.07
Close Other 1	4.66	1.39
Close Other 2	4.31	1.46

SG	HR	
	M	*SD*
Self	5.70	1.11
Close Other 1	4.71	1.23
Close Other 2	4.57	1.23

Figure 37. Student ratings of perceived performance of the self and two close others on a domain of great pride. Clear evidence of the comparison process was evident in both cultures, especially in Japan. Adolescents report having an area of high pride, in which he or she is better at than his or her close others.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.856, 874.015) =213.431, p<.001. η_p^2=.312. The main effect of culture was not significant, F(1, 471) =.090, *ns*. An interaction effect between target and culture factors was significant, F(1.856, 874.015) =6.078, p=.003. η_p^2=.013.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and a significant difference between close other 1 and close other 2 (p=.001). Singaporean participants rated the self and close other 1 significantly different (p<.001) and significant for close other 2 (p<.001), and not significant for close other 1 and close other 2 (p=.185). There was a significant difference between Japanese and Singaporean ratings on the self (p=.026), and not a significant difference for close other 1 (p=.705) and significant for close other 2 (p=.039).

5.6.4. Careful with Money

Students' ratings of their own perceived performance and those of two close schoolmates on being careful with money, were examined. Descriptive statistics on being careful with money are shown in Table 29. See Figure 38.

Table 29. Means and Standard Deviation of Ratings on Being Careful with Money by Japanese on Left (n=220) and Singaporeans on Right (n=294).

JP	Rating	
	M	*SD*
Self	5.30	1.23
Close Other 1	4.32	1.39
Close Other 2	4.15	1.32

SG	Rating	
	M	*SD*
Self	5.07	1.29
Close Other 1	4.70	1.31
Close Other 2	4.59	1.23

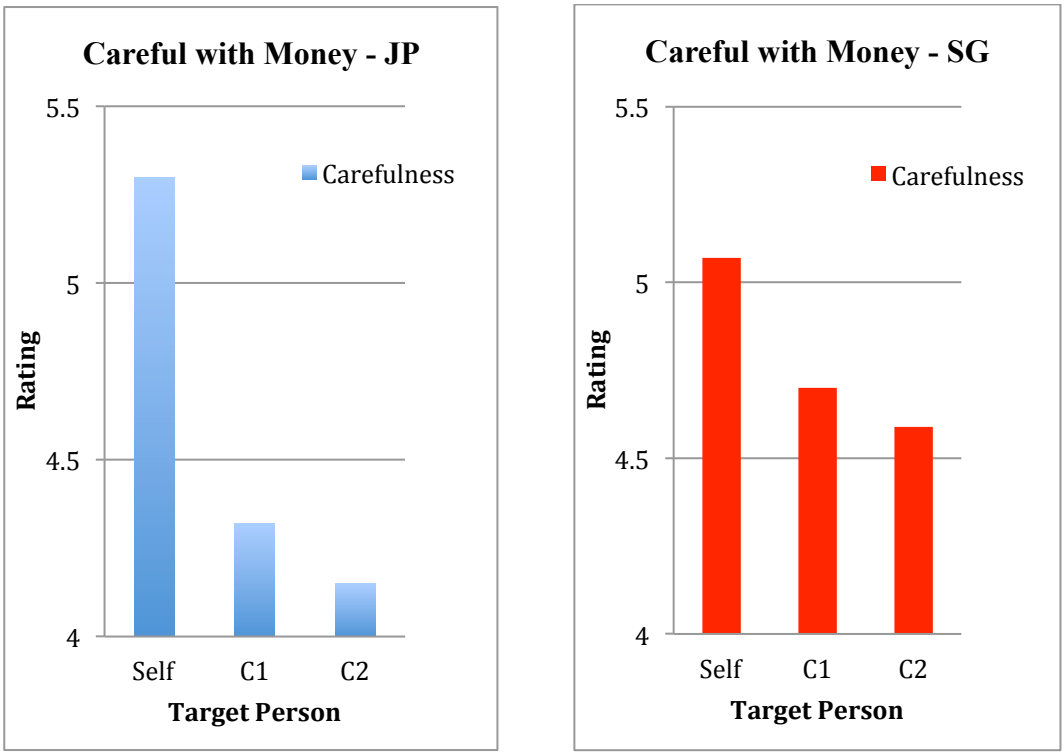


Figure 38. Student ratings of perceived performance of the self and two close others on being careful with money. Clear evidence of the comparison process was evident in both cultures, especially in Japan. Adolescents appear to imagine their friends as wealthier and spending more money than themselves, and perceive themselves as being more careful with money than his or her close others are.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.973, 1006.102) =93.596, p<.001. η_p^2=.155. The main effect of culture was significant, F(1, 501) =4.733, p=.030. η_p^2=.009. An interaction effect between target and culture factors was significant, F(1.973, 1006.102) =16.761, p<.001. η_p^2=.032.

Japanese participants rated the self and close other 1 significantly different (p<.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.146). Singaporean participants rated the self and close other 1 significantly different (p<.001) and significant for close other 2 (p<.001), and not significant for close other 1 and close other 2 (p=.449). There was a significant difference between Japanese and Singaporean ratings on the self (p=.044), and a significant difference for close other 1 (p=.002) and significant for close other 2 (p<.001).

5.6.5. Special Point in School

Students' ratings of their own perceived performance and those of two close schoolmates on the self's special point in school, were examined. Descriptive statistics on the self's special point in school are shown in Table 30. See Figures 39 & 40.

Table 30. Means and Standard Deviation of Ratings on the Self's Special Point in School by Japanese on Left (n=186) and Singaporeans on Right (n=147).

JP	HR	
	M	*SD*
Self	5.33	1.48
Close Other 1	5.60	1.05
Close Other 2	4.68	1.67

SG	HR	
	M	*SD*
Self	5.78	1.08
Close Other 1	4.75	1.49
Close Other 2	4.50	1.51

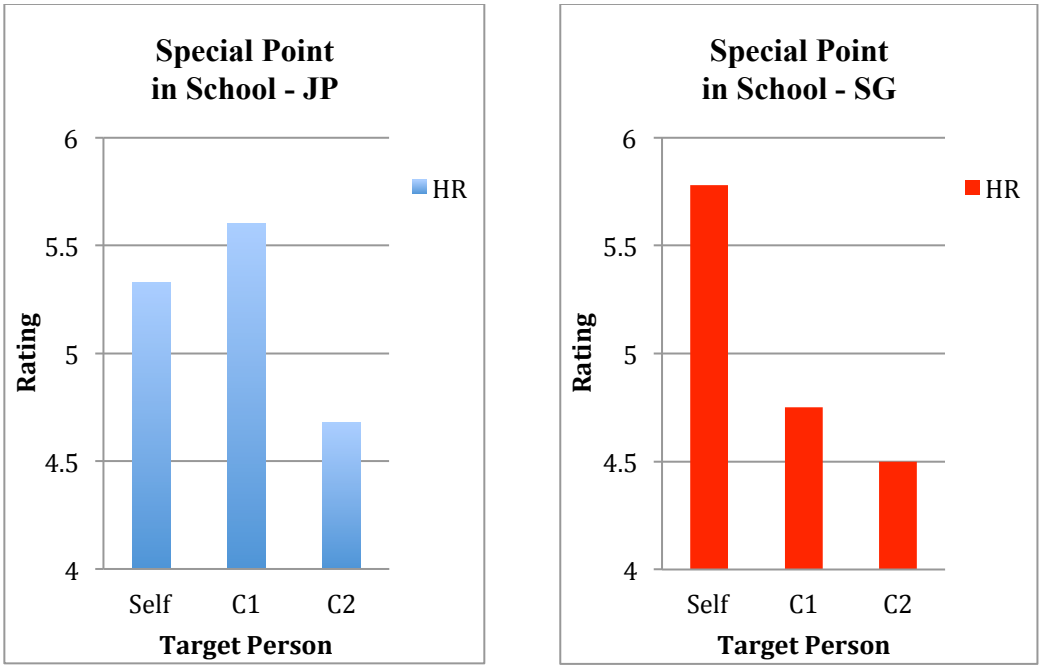


Figure 39. Student ratings of perceived performance of the self and two close others on his or her self's special point in school. Clear evidence of the comparison process was evident in the ratings from Singaporean participants on both close others, but only with close other 2 in Japan. Japanese participants rated close other 1 and 2 very differently. Singaporean participants clearly find themselves having a niche on a certain point in school against (not with) their close others, while Japanese appear to compromise this to their best friend, but not to their second best friend.

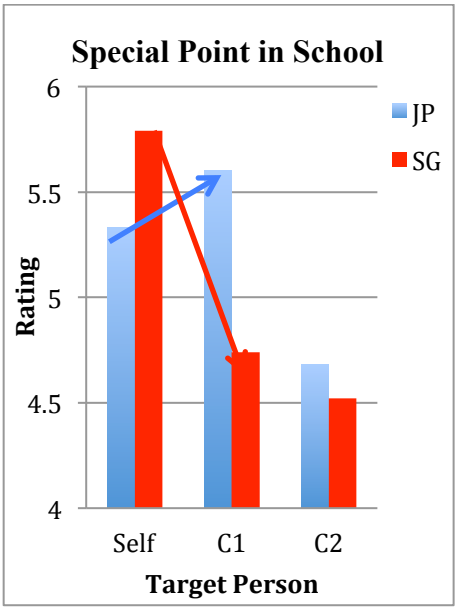


Figure 40. Student ratings of perceived performance of the self and two close others on the self's own special point in school. Cultural difference detected. Japan in blue and Singapore in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.938, 645.390) =60.935, p<.001. η_p^2=.155. The main effect of culture was not significant, F(1, 333) =2.469, *ns*. An interaction effect between target and culture factors was significant, F(1.938, 645.390) =28.416, p<.001. η_p^2=.079.

Japanese participants rated the self and close other 1 marginally significantly different (p=.062) and significant for close other 2 (p<.001), and a significant difference between close other 1 and close other 2 (p<.001). Singaporean participants rated the self and close other 1 significantly different (p<.001) and significant for close other 2 (p<.001), and not significant for close other 1 and close other 2 (p=.325). There was a significant difference between Japanese and Singaporean ratings on the self (p=.002), and a

significant difference for close other 1 (p<.001) and not significant for close other 2 (p=.369).

5.6.6. Being Independent

Students' ratings of their own perceived performance and those of two close schoolmates on being independent that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on being independent for the high self-relevance domain are shown in Table 31. See Figure 41.

Table 31. Means and Standard Deviation of Ratings on Being Independent by Japanese on Left (n=202) and Singaporeans on Right (n=224).

JP	HR	
	M	*SD*
Self	4.65	1.29
Close Other 1	4.51	1.38
Close Other 2	4.31	1.40

SG	HR	
	M	*SD*
Self	5.38	1.16
Close Other 1	5.06	1.28
Close Other 2	4.92	1.29

Figure 41. Student ratings of perceived importance of the self and two close others on being independent, which the student designated as highly self-relevant to their self-definition. Independent was ranked 19 out of 24 domains for Japan and 15 out of 24 for Singapore. Singaporeans rated a significantly higher feeling of independence than did Japanese.

Analysis

A 3x2 mixed design ANOVA was conducted. The ANOVA revealed the main effect of target was significant, $F(2, 766) = 16.054$, $p < .001$. $\eta_p^2 = .040$. The main effect of culture was significant, $F(1, 383) = 45.487$, $p < .001$. $\eta_p^2 = .106$. An interaction effect between target and culture factors was not significant, $F(2, 766) = 1.007$, *ns*.

The main effect of culture was significant. Singaporean participants rated the importance of being independent higher than Japanese participants. There was significant difference between the self and close other 1 for Japanese and Singaporean ($p = .002$), and a significant difference for self and close other 2 ($p < .001$) and marginally significant difference between close other 1 and close other 2 ($p = .077$).

5.6.7. Athletic Ability

Students' ratings of their own perceived performance and those of two close schoolmates on athletic ability that the student designated as highly self-relevant were examined. Descriptive statistics on ratings of performance on athletic ability for the high self-relevance domain are shown in Table 32. See Figures 42 & 43.

Table 32. Means and Standard Deviation of Ratings on Athletic Ability by Japanese on Left (n=226), and Singaporeans on Right (n=142).

JP	HR	
	M	*SD*
Self	4.64	1.40
Close Other 1	4.80	1.55
Close Other 2	4.96	1.46

SG	HR	
	M	*SD*
Self	5.23	1.12
Close Other 1	4.70	1.33
Close Other 2	4.75	1.39

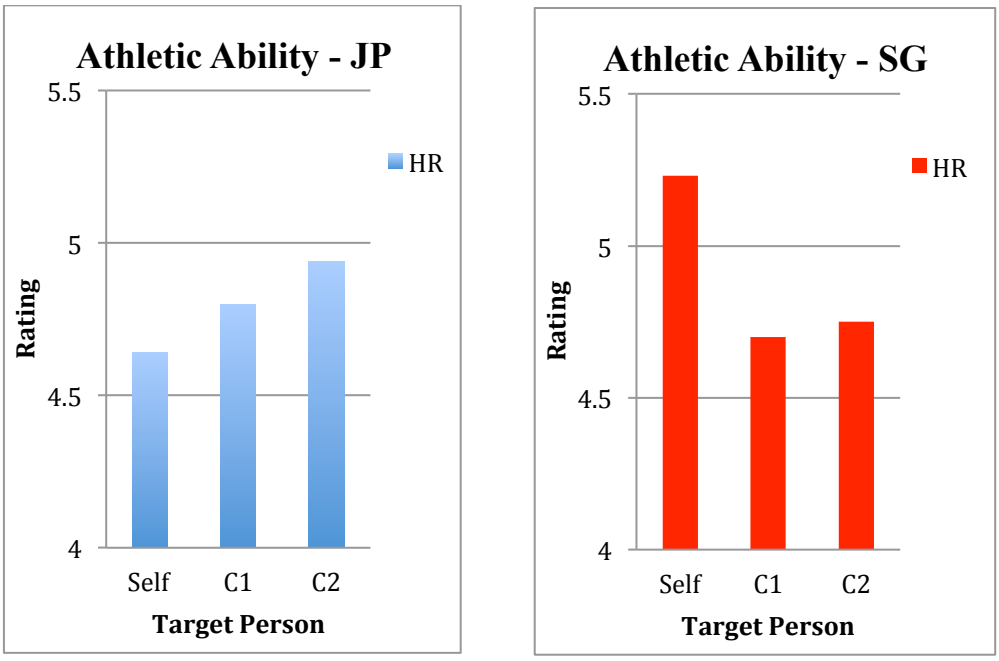


Figure 42. Student ratings of perceived importance of the self and two close others on athletic ability, which the student designated as highly self-relevant to their self-definition. The self was rated significantly different for Japanese participants and that of Singaporean participants. Singaporean participants employed a clear comparison process strategy for athletic ability, while average ratings on the self for Japanese participants was below that of both close others.

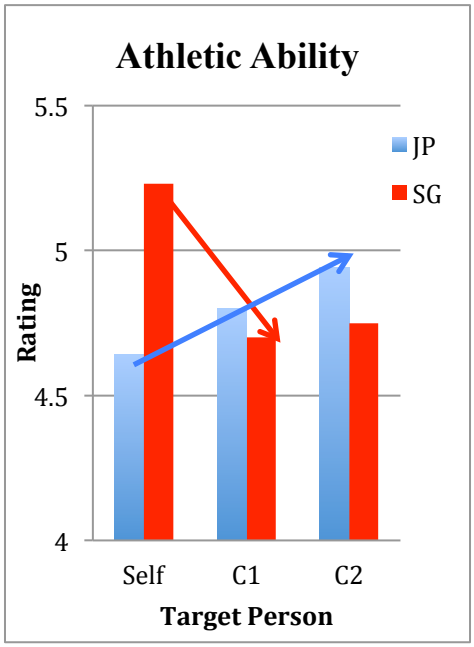


Figure 43. Student ratings of perceived performance of the self and two close others on athletic ability, which the student designated as highly self-relevant to their self-definition. Cultural difference detected in strategy choice. Japan in blue and Singapore in Red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was marginally significant, F(1.948, 638.877) =2.610, p=.076. η_p^2=.008. The main effect of culture was not significant, F(1, 328) =.367, *ns*. An interaction effect between target and culture factors was significant, F(1.948, 638.877) =8.039, p<.001. η_p^2=.024.

Japanese participants rated the self and close other 1 with no significant difference (p=*.818*) and for close other 2 (p=*.270*), and close other 1 and close other 2 (p=.695). Singaporean participants rated the self and close other 1 significantly different (p<*.001*) and for close other 2 (p=*.004*), and not significantly different for close other 1 and close other 2 (p=.997). There was a significant difference between Japanese and Singaporean

ratings on the self (p=.001), and no significant difference for close other 1 (p=.518) and close other 2 (p=.203).

5.6.8. Previously Examined Domains with Comparison Process Strategy Choice

Although the comparison process was also found in, Important School Subject (for Japan), Important Free-Time Activity, Important School Club Activity, Cooperation (for Singapore), and Fashion Sense (for Singapore), the analysis for these domains was completed in an earlier section thus is not included in this comparison process strategy section.

5.7. No Significant Common Difference in Strategy Choice for Target Persons

In the following section, domains in which both Japanese participants and Singaporean participants designated as highly self-relevant, and neither the secondary reflection process nor the comparison process strategy was commonly employed, yet significantly higher ratings on target persons were evident in ratings by Singaporean participants, are analyzed. On the domains of “Importance of Positivity” and “Good Family Background”, Singaporean participants’ ratings on the self, close other 1 and close other 2 were higher than Japanese participants’ ratings on target persons.

5.7.1. Positivity

Students' ratings of their own perceived performance and those of two close schoolmates on being positive that the student designated as highly self-relevant were examined. Although no significant choice in strategy was evident in maintaining a positive self, significant cultural differences were discovered. Descriptive statistics on ratings of performance on being positive for the high self-relevance domain are shown in Table 33. See Figures 44 & 45.

Table 33. Means and Standard Deviation of Ratings on Being Positive by Japanese on Left (*n*=276), and Singaporeans on Right (*n*=229).

JP	HR	
	M	*SD*
Self	4.66	1.59
Close Other 1	4.85	1.39
Close Other 2	4.58	1.57

SG	HR	
	M	*SD*
Self	5.04	1.29
Close Other 1	5.37	1.34
Close Other 2	5.11	1.47

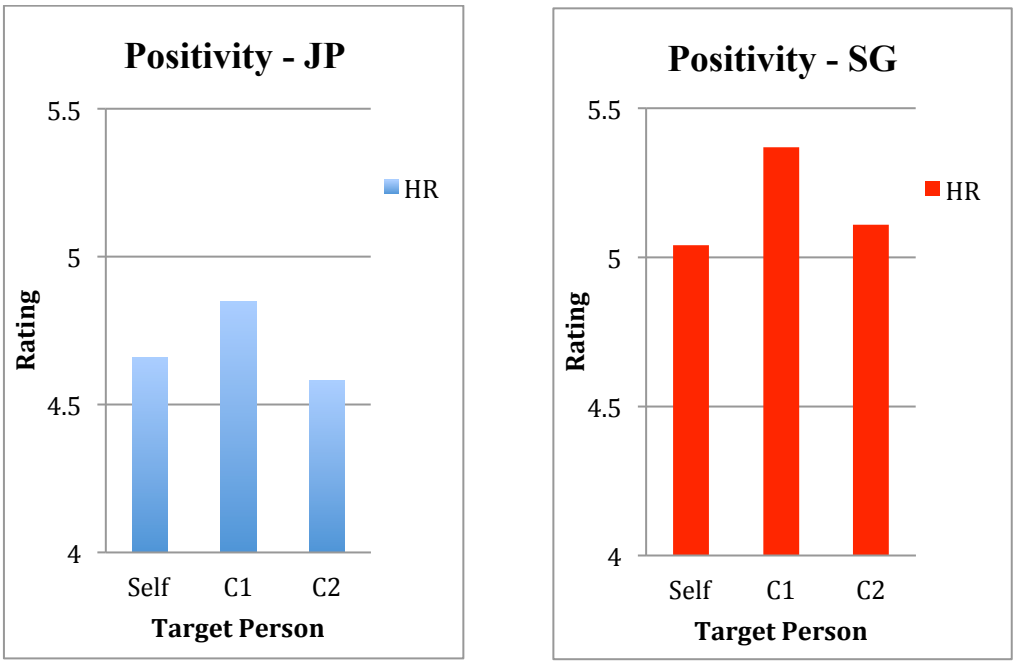


Figure 44. Student ratings of perceived importance of the self and two close others on being positive, which the student designated as highly self-relevant to their self-definition. Singaporean participants rated the self and close others as being more positive than Japanese participants, although neither the secondary reflection process nor the comparison process was clear.

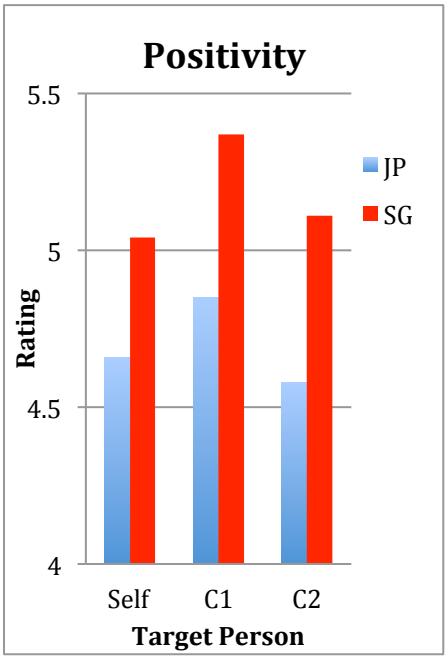


Figure 45. Student ratings of perceived performance of the self and two close others on being positive, which the student designated as highly self-relevant to their self-definition. Higher ratings by Singaporean participants are evident. Japan in blue and Singapore in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.865, 790.732) =5.848, p=.004. η_p^2=.014. The main effect of culture was significant, F(1, 424) =32.337, p<.004. η_p^2=.071. An interaction effect between target and culture factors was not significant, F(1.865, 790.732) =.589, *ns*.

The interpretation of the main effect of culture is that Singaporean participants rated positivity higher than Japanese participants. Japanese and Singaporean ratings on the self were marginally significantly different (p=.057), but not significant for close other 1 (p=.774), and a significant difference between ratings on close other 2 (p<.001).

5.7.2. A Good Family Background

Students' ratings of their own perceived family background and those of two close schoolmates designated as highly self-relevant were examined. Although no significant choice in strategy was evident in maintaining a positive self, significant cultural differences were discovered. Descriptive statistics on ratings of performance on a good family background for the high self-relevance domain are shown in Table 34. See Figures 46 & 47.

Table 34. Means and Standard Deviation of Ratings on Having a Good Family Background by Japanese on Left (n=213) and Singaporeans on Right (n=249).

JP	HR	
	M	*SD*
Self	4.97	1.58
Close Other 1	5.06	1.38
Close Other 2	5.18	1.33

SG	HR	
	M	*SD*
Self	5.47	1.44
Close Other 1	5.54	1.17
Close Other 2	5.51	1.20

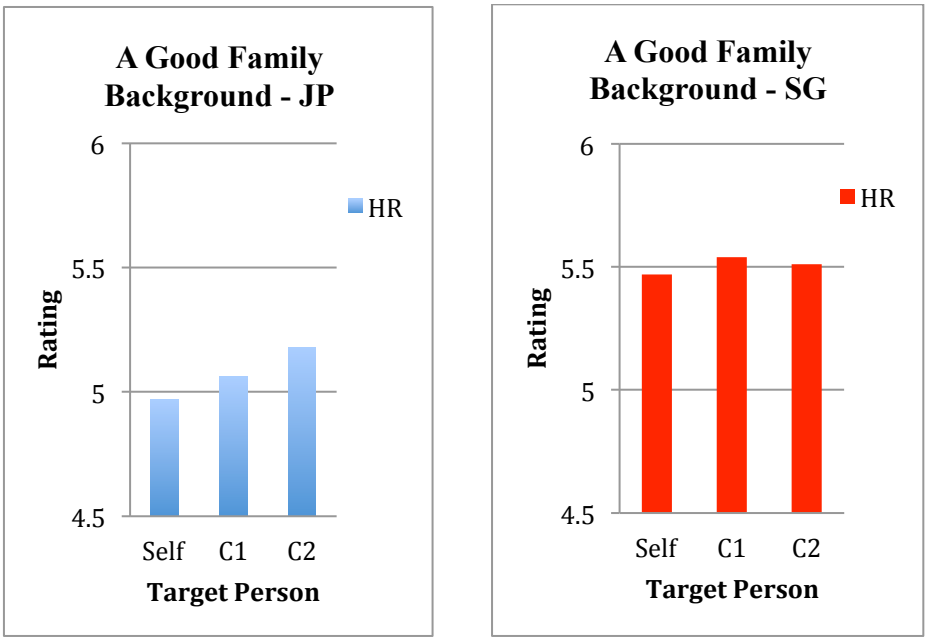


Figure 46. Student ratings of perceived performance of the self and two close others on having a good family background, which the student designated as highly self-relevant to their self-definition.

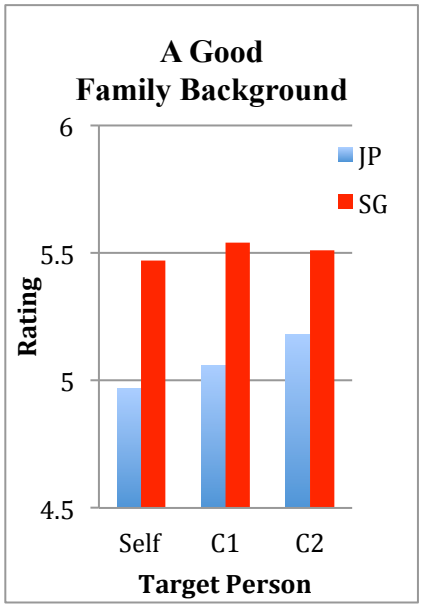


Figure 47. Student ratings of perceived performance of the self and two close others on having a good family background, which the student designated as highly self-relevant to their self-definition. Significant higher ratings by Singaporean participants are evident. Japan in blue and Singapore in red.

Analysis

A 3x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was not significant, F(1.729, 556.651) =.969, *ns*. The main effect of culture was significant, F(1, 322) =15.414, p<.001. η_p^2=.046. An interaction effect between target and culture factors was not significant, F(1.729, 556.651) =.839.644, *ns*.

The interpretation of the main effect of culture is that Singaporean participants rated having a good family background higher than Japanese participants. Japanese and Singaporean ratings on the self were significantly different (p=.003), and for close other 1 (p=.001), and close other 2 (p<.024).

5.7.3. No Significant Difference in Strategy Choice or Target Persons

No significant difference in strategy choice in the ratings for the self and close others on the following highly self-relevant domains were found in both Japan and Singapore: Positivity, Health, Goals in Life, Family Background, Saving Money, Good Family Relations, and Morals.

5.8. Strategy Choice, Popularity, Cultural Differences, Rankings, and Percent

The next section in this chapter explores the popularity aspects of the domains including percent of participants to rate the domain with a 6 or 7 out of 7, lists of strategy choice (SRP or CP), and lists cultural differences in percentages, numbers, and popularity by graphs and figures better presenting the results.

Table 35. Strategy Choice of Japanese and Singaporean Participants on the 29 Various Highly Self-Relevant Domains. Significant Strategy Differences are Highlighted in Yellow. The Left Table is in Order the Questions Appeared on the Questionnaire. The Right Table is Ordered by Strategy Choice. Abbreviations: Comparison Process (CP), Secondary Reflection Process (SRP), and No Significant Strategy Choice Employed (NS).

Domain	JP Strategy	SG Strategy
Important School Subject	CP	<SRP
Important Free-Time Activity	CP	CP
Most Desired Identity Trait	NS	NS
Important Club/Team Activity	CP	CP
Overall Ability in School	SRP	SRP
Positivity	NS	NS
Fashion	SRP	CP
Independence	<CP	<CP
Health	NS	NS
Wealth	SRP	SRP
Good Friend	SRP	SRP
Attractiveness	SRP	SRP
Cooperation	SRP	CP
Ability to get a GF/BF	SRP	SRP
Rebelliousness	SRP	NS
Accomplish Goals in Life	NS	NS
Good Mood	SRP	SRP
Humor	SRP	NS
Family Background	NS	NS
Good Personality	SRP	SRP
Saving Money	NS	NS
Good Family Relations	NS	NS
Morals	NS	NS
Athletic Ability	<SRP	CP
Positive Self-Identity Trait	CP	CP
Contribute to Friends' Circle	CP	CP
Area of Great Pride	CP	CP
Best Friendship Characteristic	SRP	NS
Special Point in School	SPR&CP	CP

Domain	JP Strategy	SG Strategy
Important Free-Time Activity	CP	CP
Important Club/Team Activity	CP	CP
Positive Self-Identity Trait	CP	CP
Contribute to Friends' Circle	CP	CP
Area of Great Pride	CP	CP
Independence	<CP	<CP
Overall Ability in School	SRP	SRP
Wealth	SRP	SRP
A Good Friend	SRP	SRP
Attractiveness	SRP	SRP
Ability to get a GF/BF	SRP	SRP
Good Mood	SRP	SRP
Personality	SRP	SRP
Most Desired Identity Trait	NS	NS
Positivity	NS	NS
Health	NS	NS
Accomplish Goals in Life	NS	NS
Family Background	NS	NS
Saving Money	NS	NS
Good Family Relations	NS	NS
Morals	NS	NS
Fashion	SRP	CP
Cooperation	SRP	CP
Athletic Ability	<SRP	CP
Humor	SRP	NS
Rebelliousness	SRP	NS
Special Point in School	SPR&CP	CP
Important School Subject	CP	<SRP
Best Friendship Characteristic	SRP	NS

Japan

Table 36. Domain, Percent of Participants, Strategy Choice, and Number of Japanese Participants Who Rated the Domain as Highly Self-Relevant with a 6 or 7, from a Scale of 1 to 7 are Displayed for Japan. Note: Ratings on the Domains, Area of Great Pride, Best Friend Characteristic, and Special Point in School, Participants were not Asked to Rate the Domain for Importance, Although the Question Asked for the Most Important Activity in the Domain, and Thus are Not Ordered in the Table Below.

	Japan Domain	%	Strategy	Number
1	Health	84	NS	350
2	Important School Subject	79	CP	331
3	A Good Friend	78	SRP	327
4	Accomplish Goals in Life	76	NS	320
5	Important Free-Time Activity	72	CP	303
6	Most Desired Identity Trait	72	NS	301
7	Positivity	66	NS	276
8	Important Club/Team Activity	65	CP	274
9	Attractiveness	62	SRP	262
10	Cooperation	61	SRP	256
11	Saving Money	60	NS	250
12	Good Mood	58	SRP	243
13	Wealth	55	SRP	228
14	Athletic Ability	54	<SRP	226
15	Good Family Relations	54	NS	224
16	Overall Ability in School	53	SRP	220
17	Humor	52	SRP	217
18	Family Background	51	NS	213
19	Independence	48	<CP	202
20	Personality	47	SRP	195
21	Ability to get a GF/BF	45	SRP	188
22	Morals	44	NS	186
23	Fashion	43	SRP	181
24	Positive Self-Identity Trait	34	CP	144
25	Contribute to Friends' Circle	26	CP	110
26	Rebelliousness	18	SRP	69
27	Area of Great Pride	N/A	CP	183
28	Best Friendship Characteristic	N/A	SRP	205
29	Special Point in School	N/A	<SRP&CP	186

Singapore

Table 37. Domain, Percent of Participants, Strategy Choice, and Number of Japanese Participants Who Rated the Domain as Highly Self-Relevant with a 6 or 7, from a Scale of 1 to 7 are Displayed for Japan. Note: Ratings on the Domains Area of Great Pride, Best Friend Characteristic, and Special Point in School, Participants were not Asked to Rate the Domain for Importance, Although the Question Asked for the Most Important Activity in the Domain, and Thus are Not Ordered in the Table Below.

	Singapore Domain	%	Strategy	Number
1	A Good Friend	91	SRP	273
2	Saving Money	88	NS	265
3	Personality	87	SRP	261
4	Accomplish Goals in Life	84	NS	253
5	Good Family Relations	83	NS	249
6	Good Mood	82	SRP	246
7	Morals	81	NS	244
8	Important School Subject	81	<SRP	243
9	Most Desired Identity Trait	81	NS	243
10	Cooperation	78	CP	235
11	Health	78	NS	235
12	Overall Ability in School	77	SRP	231
13	Positivity	76	NS	229
14	Humor	75	NS	226
15	Independence	74	<CP	224
16	Important Free-Time Activity	71	CP	215
17	Important Club/Team Activity	63	CP	190
18	Contribute to Friends' Circle	58	CP	175
19	Family Background	55	NS	166
20	Positive Self-Identity Trait	53	CP	161
21	Wealth	49	SRP	147
22	Attractiveness	47	SRP	143
23	Athletic Ability	47	CP	142
24	Fashion	35	CP	107
25	Ability to get a GF/BF	27	SRP	82
26	Rebelliousness	6	NS	19
27	Area of Great Pride	N/A	CP	292
28	Best Freindship Charateristic	N/A	NS	179
29	Special Point in School	N/A	CP	147

5.8.1. Most Important and Least Important Rated Domains to the Positive Self.

Section K. in the questionnaire listed 23 domains, and asked participants to choose and list the most important four domains in order from one to four, that help the participant feel positive about his or her "self" and the three least important domains, from one to three. Note: Sections E to J.20 in the questionnaire were utilized, only J.18/Good Family Relations, was not listed in the choice of those domains. See Tables 38 & 39.

Table 38. Popularity ratings on the Most Important Domain out of 23 Domains (Domains are From Questionnaire Section E to J.20). Participants were to Choose the Most Important Domain to His or Her Positive Self (Japan *n*=416, Singapore *n*=300).

Most Popularly Rated as #1 Important to the Positive Self			
Domain	JP Number	SG Number	Domain
Desired ID Trait	101	119	Academic Ability
Academic Ability	68	27	Health
Health	42	26	Good Personality
A Good Friend	37	21	Desired ID Trait

Table 39. Popularity ratings on the Least Important Domain out of 23 Domains (Domains are From Questionnaire Section E to J.20). Participants were to Choose the Least Important Domain to His or Her Self (Japan n=402, Singapore n=300).

Most Popularly Rated as Least Important to the Self			
Domain	JP Number	SG Number	Domain
Rebelliousness	140	91	Rebelliousness
Fashion	35	37	BF/GF
BF/GF	28	34	Fashion

Table 40. Popularity of Domains Rated as Being the Four Most Important Domains to the Positive Self (Japan *n*=416, Singapore *n*=300).

		Popularity of Domains Chosen as the Top Four Most Important Domains to the Positive Self					
Strategy Choice	Ranking	JP Number	JP Domain	SG Domain	SG Number	Ranking	Strategy Choice
SRP	1	216	Academic Ability	Academic Ability	226	1	SRP
NS	2	204	Desired ID Trait	Good Personality	95	2	SRP
SRP	3	172	A Good Friend	Health	90	3	NS
CP	4	139	Free-Time Act.	A Good Friend	88	4	SRP
NS	5	127	Health	Free-Time Act.	87	5	CP
CP	6	98	Club/Team Act.	Goals in Life	75	6	NS
NS	7	77	Goals in Life	Most Impt. Sub.	73	7	<SRP
<SRP	8	68	Athletic Ability	Desired ID Trait	56	8	NS
SRP	9	59	Attractiveness	Positivity	55	9	NS
CP	10	58	Most Impt. Sub.	Morals	48	10	NS
NS	11	49	Fam. Background	Wealth	44	11	SRP
SRP	12	46	Humor	Fam. Background	41	12	NS
NS	13	42	Positivity	Saving Money	37	13	NS
SRP	14	42	Wealth	Club/Team Act.	34	14	CP
SRP	15	39	BF/GF	Independent	30	15	<CP
NS	16	37	Saving Money	BF/GF	28	16	SRP
NS	17	37	Morals	Humor	24	17	NS
SRP	18	36	Cooperation	Attractiveness	21	18	SRP
SRP	19	31	Fashion	Athletic Ability	21	19	CP
<CP	20	29	Independent	Fashion	16	20	CP
SRP	21	21	Good Personality	Good Mood	15	21	SRP
SRP	22	20	Good Mood	Cooperation	4	22	CP
SRP	23	14	Rebelliousness	Rebelliousness	1	23	NS

Table 41. Popularity of Domains Rated as Being the Three Least Important Domains to the Positive Self (Japan *n*=402, Singapore *n*=300).

		Popularity of Domains Rated as the Least Three Important Domains to the Positive Self					
Strategy Choice	Ranking	JP Number	JP Domain	SG Domain	SG Number	Ranking	Strategy Choice
SRP	1	221	Rebelliousness	Rebelliousness	193	1	NS
SRP	2	93	Wealth	BF/GF	120	2	SRP
<CP	3	92	Independent	Fashion	99	3	CP
SRP	4	87	Fashion	Athletic Ability	65	4	CP
SRP	5	82	BF/GF	Attractiveness	65	5	SRP
CP	6	76	Good Mood	Wealth	64	6	SRP
SRP	7	56	Academic Ability	Club/Team Act.	62	7	CP
SRP	8	49	Attractiveness	Fam. Background	44	8	NS
NS	9	48	Morals	Free-Time Act.	29	9	CP
CP	10	45	Most Impt. Sub.	Good Mood	22	10	SRP
<SRP	11	41	Athletic Ability	Desired ID Trait	20	11	NS
NS	12	39	Saving Money	Humor	16	12	NS
CP	13	37	Club/Team Act.	Academic Ability	15	13	SRP
SRP	14	35	Good Personality	Most Impt. Sub.	15	14	<SRP
NS	15	32	Fam. Background	Cooperation	13	15	CP
SRP	16	32	Cooperation	Health	12	16	NS
SRP	17	30	Humor	Positivity	11	17	NS
CP	18	29	Free-Time Act.	Saving Money	9	18	NS
NS	19	18	Desired ID Trait	Goals in Life	8	19	NS
NS	20	18	Goals in Life	Independent	7	20	<CP
NS	21	17	Health	A Good Friend	6	21	SRP
NS	22	13	Positivity	Good Personality	5	22	SRP
SRP	23	7	A Good Friend	Morals	5	23	NS

Japan

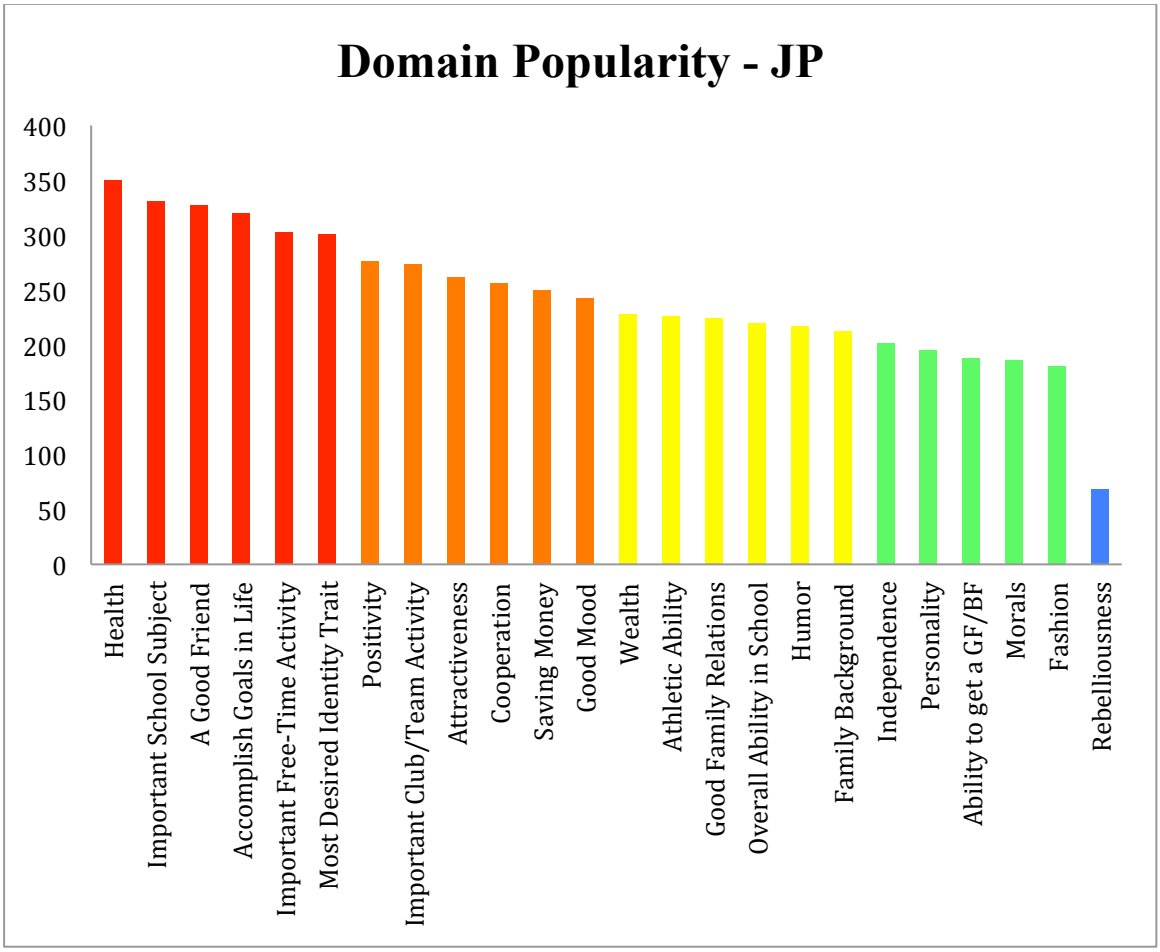


Figure 48. Number of students for each domain, who rated that domain as a 6 or 7 (Out of the 7 point scale). A total of 416 Japanese high school students took the Friendship and School Life Survey.

Singapore

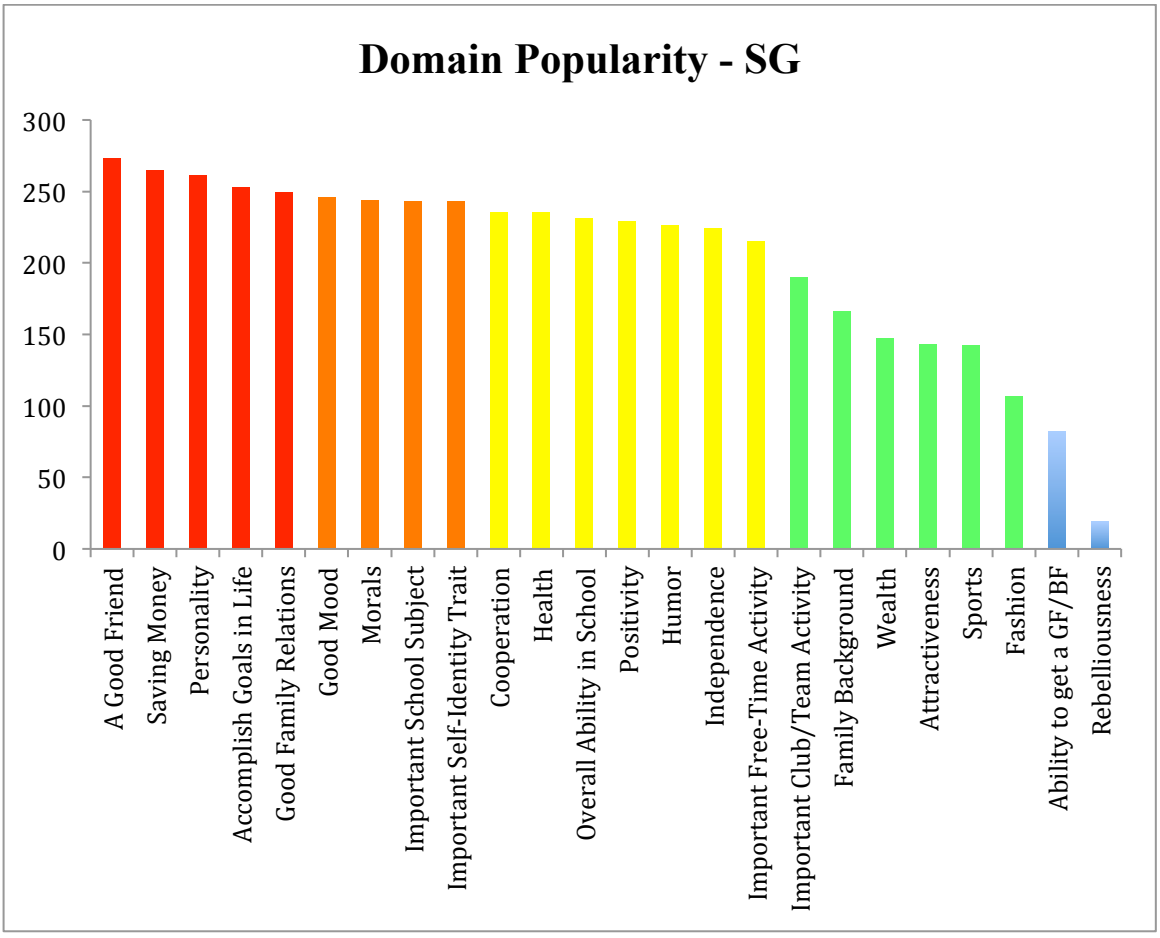


Figure 49. Number of students for each domain, who rated that domain as a 6 or 7 (Out of the 7 point scale). A total of 300 Singaporean high school students took the Friendship and School Life Survey.

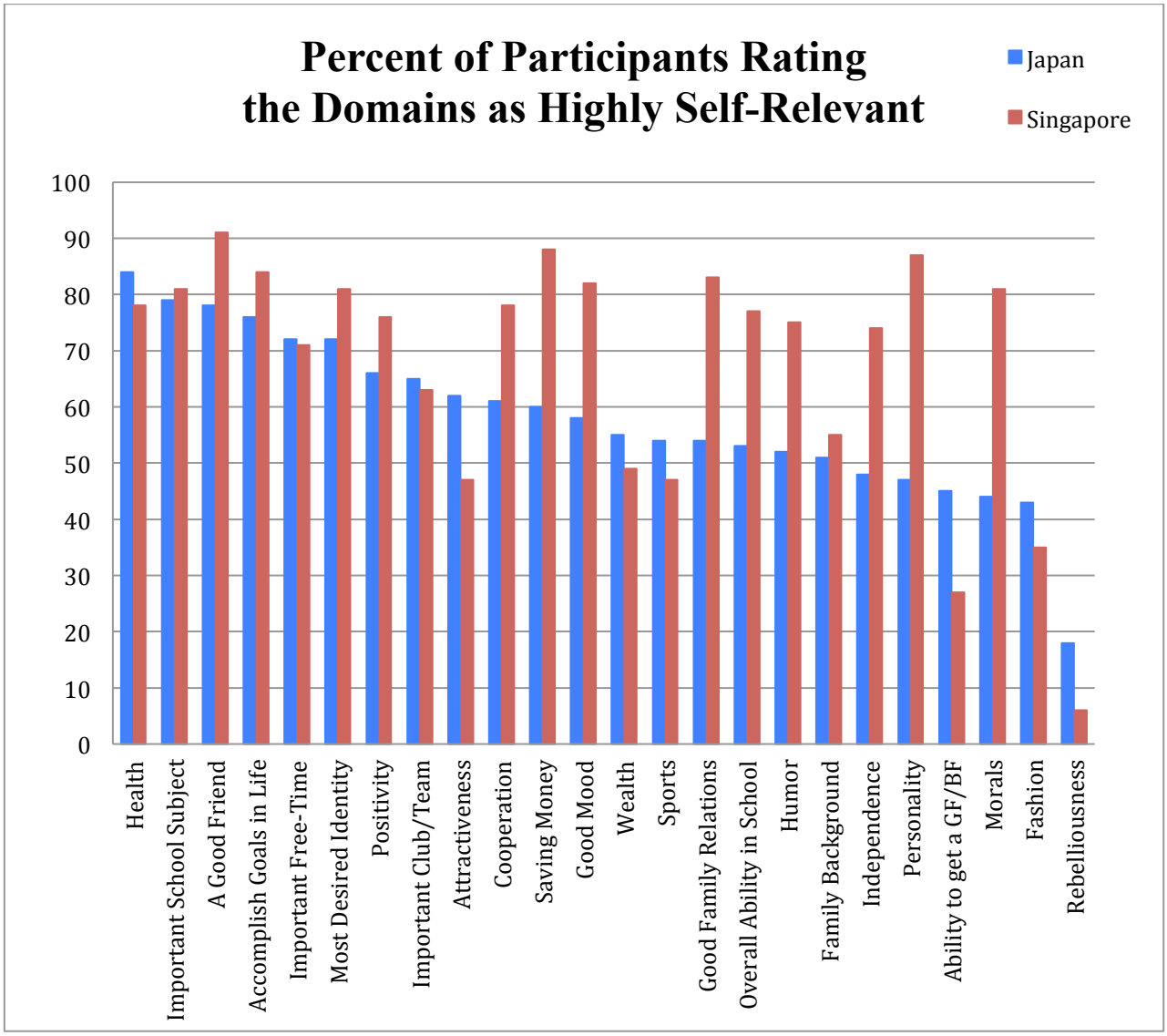


Figure 50. A different perspective of the percentage of students rating the domain as highly self-relevant by choosing a 6 or 7, out of a 1 to 7 point scale. The figure is arranged from high to low percentage for Japanese participants.

Significant Cultural Differences

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Table 42. Percent of Japanese and Singaporean Participants Who Rated the Domain Highly Self-Relevant with a 6 or 7, from a Scale of 1 to 7, and the Difference in Percentage. The Chart is Ordered from High to Low Percent for Japan. Notice the Similarities as well as the Differences.

	Domain	JP %	SG %	% Difference
1	Health	84	78	6
2	Important School Subject	79	81	2
3	A Good Friend	78	91	13
4	Accomplish Goals in Life	76	84	8
5	Important Free-Time Activity	72	71	1
6	Most Desired Identity Trait	72	81	9
7	Positivity	66	76	10
8	Important Club/Team Activity	65	63	2
9	Attractiveness	62	47	15
10	Cooperation	61	78	17
11	Saving Money	60	88	28
12	Good Mood	58	82	24
13	Wealth	55	49	6
14	Athletic Ability	54	47	7
15	Good Family Relations	54	83	29
16	Overall Ability in School	53	77	24
17	Humor	52	75	23
18	Family Background	51	55	4
19	Independence	48	74	26
20	Personality	47	87	40
21	Ability to get a GF/BF	45	27	18
22	Morals	44	81	37
23	Fashion	43	35	8
24	Positive Self-Identity Trait	34	65	31
25	Contribute to Friends' Circle	26	58	32
26	Rebelliousness	18	6	12

Table 43. The Difference in Percent Between the Percent of Participants in Japan and the Percent of Participants in Singapore, in Order of Least to Greatest Percent, Who Rated the Domain with a 6 or 7, on a Scale of 1 to 7. Starting with Column 1: The Domain, Percent Difference Between Culture, Percent of Japanese to Rate the Domain with a 6 or 7, Percent of Singaporeans to Rate the Domain with a 6 or 7, and the Culture with the Higher Percentile. Notice the Cultural Similarities as well as the Differences.

	Difference in Percent				
	Domain	% Difference	JP %	SG %	Higher %
1	Important Free-Time Activity	1	72	71	JP
2	Important Club/Team Activity	2	65	63	JP
3	Important School Subject	2	79	81	SG
4	Family Background	4	51	55	SG
5	Health	6	84	78	JP
6	Wealth	6	55	49	JP
7	Athletic Ability	7	54	47	JP
8	Accomplish Goals in Life	8	76	84	SG
9	Fashion	8	43	35	JP
10	Most Desired Identity Trait	9	72	81	SG
11	Positivity	10	66	76	SG
12	Rebelliousness	12	18	6	JP
13	A Good Friend	13	78	91	SG
14	Attractiveness	15	62	47	JP
15	Cooperation	17	61	78	SG
16	Ability to get a GF/BF	18	45	27	JP
17	Humor	23	52	75	SG
18	Good Mood	24	58	82	SG
19	Overall Ability in School	24	53	77	SG
20	Independence	26	48	74	SG
21	Saving Money	28	60	88	SG
22	Good Family Relations	29	54	83	SG
23	Positive Self-Identity Trait	31	34	65	SG
24	Contribute to Friends' Circle	32	26	58	SG
25	Morals	37	44	81	SG
26	Personality	40	47	87	SG

Table 44. The Difference in Popularity Ranking Between the Ranking from the Percent of Participants in Japan and the Ranking from the Percent of Participants in Singapore Who Rated the Domain with a 6 or 7, on a Scale of 1 to 7. The Table is Organized in Order of Least Ranking Difference (in White) to Greatest Ranking Difference (in Red), Between the two Cultures. Starting with Column 1: The Domain, Ranking Difference Between Culture, Rankings Place by Japanese, Rankings Place by Singaporeans, and the Culture with the Highest Ranking for that Domain.

	Difference in Popularity Ranking - Ranking Out of 24 Domains				
	Domain	Difference	JP Ranking	SG Ranking	Higher Ranking
1	Accomplish Goals in Life	0	4	4	Equal
2	Cooperation	0	10	10	Equal
3	Family Background	0	18	18	Equal
4	Rebelliousness	0	24	24	Equal
5	Fashion	1	23	22	SG
6	A Good Friend	2	3	1	SG
7	Ability to get a GF/BF	2	21	23	JP
8	Most Desired Identity Trait	3	6	9	JP
9	Humor	3	17	14	SG
10	Overall Ability in School	4	16	12	SG
11	Positive Self-Identity Trait	4	24	20	SG
12	Independence	4	19	15	SG
13	Important School Subject	6	2	8	JP
14	Positivity	6	7	13	JP
15	Good Mood	6	12	6	SG
16	Wealth	6	13	19	JP
17	Contribute to Friends' Circle	7	25	18	SG
18	Athletic Ability	7	14	21	JP
19	Important Club/Team Activity	9	8	17	JP
20	Saving Money	9	11	2	SG
21	Health	10	1	11	JP
22	Good Family Relations	10	15	5	SG
23	Important Free-Time Activity	11	5	16	JP
24	Attractiveness	11	9	20	JP
25	Morals	15	22	7	SG
26	Personality	17	20	3	SG

Table 45. Top Five (Popular) and Bottom Five (Least Popular) Domains Rated with a 6 or 7 out of 24 Domains. Note the Similarities (in Color) and Differences (in Black).

Japan - Top Five	Number
1. Health	350
2. Important School Subject	331
3. Being a Good Friend	327
4. Accomplish Goals in Life	320
5. Important Free-Time Activity	303

Singapore - Top Five	Number
1. Being a Good Friend	273
2. Saving Money	265
3. A Good Personality	261
4. Accomplish Goals in Life	253
5. Good Family Relations	249

Japan - Bottom Five	Number
5. Morals	186
4. Fashion	181
3. Positive Self-ID Trait	144
2. Contribute to Friends' Circle	110
1. Rebelliousness	69

Singapore - Bottom Five	Number
5. Attractiveness	143
4. Athletic Ability	142
3. Fashion	107
2. Ability to get a GF/BF	82
1. Rebelliousness	19

Similarities: The domains “Being a Good Friend” and “Accomplish Goals in Life” were in the top five popular domains for both countries. The domains “Fashion” and “Rebelliousness” were in the bottom five least popular domains for both countries. Descriptive statistics for Japan and Singapore for those who answered with a 7 and those who answered with a 6 or 7 out of a 7 point scale follow.

Japan

Table 46. From Left, Survey Question Number from the Friendship and School Life Survey, Standard Deviation, Number of Participants to Answer with a 7, or a 6 or 7 Out of a 1 to 7 Point Scale, and Mean for Each Domain.

Answered 7				Answered 6&7			
JP	SD	N	Mean	Mean	N	SD	JP
E3	1.25	229	5.14	5.04	413	1.24	E3
E4	1.51	210	4.21	4.21	380	1.38	E4
E5	1.47	201	4.35	4.31	361	1.39	E5
F4	0.80	223	6.45	6.41	415	1.11	F4
F5	1.49	203	4.71	4.85	378	1.42	F5
F6	1.36	195	4.48	4.63	361	1.36	F6
G3	1.53	216	5.35	5.14	410	1.46	G3
G4	1.31	201	5.07	4.97	380	1.37	G4
G5	1.69	190	5.47	5.34	360	1.64	G5
H3	0.84	203	6.36	6.27	398	1.18	H3
H4	1.59	190	4.47	4.39	371	1.49	H4
H5	1.66	182	4.04	3.99	353	1.56	H5
J1.2	1.48	135	4.18	4.08	220	1.35	J1.2
J1.3	1.56	128	5.19	5.09	206	1.46	J1.3
J1.4	1.39	125	5.02	4.94	196	1.33	J1.4
J2.2	1.71	193	4.78	4.66	276	1.60	J2.2
J2.3	1.49	184	4.84	4.85	262	1.40	J2.3
J2.4	1.68	171	4.67	4.58	244	1.58	J2.4
J3.2	1.38	105	3.99	3.99	181	1.22	J3.2
J3.3	1.46	97	4.98	4.85	172	1.43	J3.3
J3.4	1.40	94	4.83	4.75	164	1.33	J3.4
J4.2	1.37	128	4.56	4.65	202	1.29	J4.2
J4.3	1.48	119	4.45	4.51	188	1.38	J4.3
J4.4	1.47	114	4.38	4.31	175	1.41	J4.4
J5.2	1.27	293	5.43	5.35	350	1.26	J5.2
J5.3	1.25	274	5.75	5.69	329	1.21	J5.3
J5.4	1.11	260	5.50	5.44	312	1.10	J5.4
J6.2	1.61	155	3.79	3.83	228	1.53	J6.2
J6.3	1.50	143	5.46	5.23	211	1.43	J6.3
J6.4	1.30	136	5.60	5.36	200	1.32	J6.4
J7.2	1.17	268	4.75	4.72	327	1.17	J7.2
J7.3	0.98	257	6.12	6.06	313	0.99	J7.3
J7.4	1.10	244	5.96	5.89	294	1.11	J7.4
J8.2	1.46	196	3.87	3.87	262	1.39	J8.2
J8.3	1.43	183	5.05	5.10	246	1.33	J8.3
J8.4	1.49	174	4.84	4.90	233	1.38	J8.4
J9.2	1.24	173	4.61	4.62	256	1.16	J9.2
J9.3	1.28	161	5.02	5.06	240	1.18	J9.3
J9.4	1.16	155	5.07	5.12	225	1.17	J9.4
J10.2	1.55	131	4.34	4.31	188	1.46	J10.2
J10.3	1.75	128	4.93	4.90	183	1.62	J10.3
J10.4	1.47	124	4.55	4.67	175	1.42	J10.4

Japan (continued)

Table 47. From Left, Survey Question Number from the Friendship and School Life Survey, Standard Deviation, Number of Participants to Answer with a 7, or a 6 or 7 Out of a 1 to 7 Point Scale, and Mean for Each Domain.

Answered 7				Answered 6&7			
JP	SD	N	Mean	Mean	N	SD	JP
J11.2	1.95	41	4.20	4.46	69	1.80	J11.2
J11.3	1.90	34	4.82	4.92	60	1.76	J11.3
J11.4	1.93	34	4.71	4.91	58	1.79	J11.4
J.12.2	1.40	255	4.86	4.77	320	1.39	J.12.2
J.12.3	1.19	236	5.15	5.12	297	1.14	J.12.3
J.12.4	1.24	225	4.92	4.92	283	1.21	J.12.4
J13.2	1.62	162	4.72	4.72	243	1.42	J13.2
J13.3	1.47	140	5.42	5.31	220	1.32	J13.3
J13.4	1.60	132	5.13	5.11	208	1.41	J13.4
J14.2	1.63	131	4.21	4.25	217	1.47	J14.2
J14.3	1.55	118	5.50	5.39	196	1.35	J14.3
J14.4	1.64	112	5.26	5.22	185	1.46	J14.4
J15.2	1.78	151	5.00	5.01	213	1.58	J15.2
J15.3	1.47	131	5.08	5.06	189	1.38	J15.3
J15.4	1.43	119	5.13	5.18	173	1.33	J15.4
J16.2	1.60	124	4.01	4.11	195	1.44	J16.2
J16.3	1.39	110	5.11	5.09	179	1.31	J16.3
J16.4	1.44	107	4.95	5.09	168	1.32	J16.4
J17.2	1.69	187	4.75	4.71	250	1.58	J17.2
J17.3	1.61	168	5.10	5.07	226	1.50	J17.3
J17.4	1.55	156	5.03	4.98	210	1.45	J17.4
J18.2	1.61	177	5.38	5.28	224	1.57	J18.2
J18.3	1.47	157	5.34	5.30	202	1.40	J18.3
J18.4	1.46	143	5.47	5.35	185	1.40	J18.4
J19.2	1.40	120	5.18	5.12	186	1.25	J19.2
J19.3	1.52	106	5.16	5.17	170	1.33	J19.3
J19.4	1.38	99	5.14	5.17	158	1.28	J19.4
J20.2	1.49	147	4.67	4.64	226	1.40	J20.2
J20.3	1.71	128	4.78	4.80	203	1.55	J20.3
J20.4	1.63	125	4.93	4.96	191	1.46	J20.4
N3	1.30	83	5.72	5.48	144	1.30	N3
N4	1.85	83	4.22	4.27	144	1.67	N4
N5	1.90	79	4.39	4.51	137	1.67	N5
O3	1.46	71	5.75	5.46	110	1.19	O3
O4	1.84	67	4.58	4.49	104	1.66	O4
O5	1.83	64	4.66	4.68	101	1.50	O5

Singapore

Table 48. From Left, Survey Question Number from the Friendship and School Life Survey, Standard Deviation, Number of Participants to Answer with a 7, or a 6 or 7 Out of a 1 to 7 Point Scale, and Mean for Each Domain.

Answered 7				Answered 6&7			
SG	SD	N	Mean	Mean	N	SD	SG
E3	1.58	154	4.57	4.44	300	1.53	E3
E4	1.26	147	4.74	4.76	289	1.32	E4
E5	1.21	144	4.75	4.75	279	1.18	E5
F4	1.01	117	6.30	6.20	301	0.99	F4
F5	1.46	115	4.63	4.75	292	1.30	F5
F6	1.43	112	4.29	4.31	285	1.31	F6
G3	1.15	146	5.02	5.00	302	1.13	G3
G4	1.34	137	5.29	5.20	291	1.19	G4
G5	1.31	131	5.13	5.08	282	1.21	G5
H3	1.18	100	5.63	5.35	294	1.19	H3
H4	1.81	98	3.85	3.73	287	1.70	H4
H5	1.79	95	3.68	3.36	281	1.69	H5
J1.2	0.90	151	4.47	4.48	231	0.86	J1.2
J1.3	1.06	146	5.23	5.18	224	1.05	J1.3
J1.4	1.13	142	5.25	5.22	219	1.11	J1.4
J2.2	1.34	142	5.23	5.04	229	1.29	J2.2
J2.3	1.39	135	5.50	5.37	221	1.34	J2.3
J2.4	1.57	131	5.25	5.11	214	1.47	J2.4
J3.2	1.16	38	5.18	4.95	107	1.11	J3.2
J3.3	1.39	37	4.11	4.28	105	1.20	J3.3
J3.4	1.13	37	4.11	3.94	104	1.12	J3.4
J4.2	1.23	140	5.48	5.38	224	1.17	J4.2
J4.3	1.33	133	5.06	5.06	215	1.28	J4.3
J4.4	1.26	130	4.96	4.92	210	1.29	J4.4
J5.2	1.31	171	5.36	5.25	235	1.30	J5.2
J5.3	1.45	166	5.30	5.26	226	1.36	J5.3
J5.4	1.34	160	5.24	5.24	218	1.30	J5.4
J6.2	1.67	71	3.82	4.11	147	1.46	J6.2
J6.3	1.51	66	4.83	4.86	141	1.31	J6.3
J6.4	1.38	66	5.11	5.07	137	1.28	J6.4
J7.2	0.91	201	5.29	5.23	273	0.86	J7.2
J7.3	1.06	196	5.90	5.85	266	1.00	J7.3
J7.4	1.15	191	5.65	5.61	258	1.09	J7.4
J8.2	1.62	54	4.20	4.20	143	1.32	J8.2
J8.3	1.66	52	4.65	4.97	140	1.36	J8.3
J8.4	1.52	52	4.73	5.28	139	1.37	J8.4
J9.2	0.93	123	5.93	5.68	235	0.99	J9.2
J9.3	1.33	121	5.38	5.22	232	1.30	J9.3
J9.4	1.25	118	5.36	5.16	225	1.27	J9.4
J10.2	1.54	19	4.58	4.18	82	1.21	J10.2
J10.3	1.51	19	4.79	4.60	81	1.24	J10.3
J10.4	1.79	19	4.11	4.86	81	1.43	J10.4

Singapore (continued)

Table 49. From Left, Survey Question Number from the Friendship and School Life Survey, Standard Deviation, Number of Participants to Answer with a 7, or a 6 or 7 Out of a 1 to 7 Point Scale, and Mean for Each Domain.

Answered 7				Answered 6&7			
SG	SD	N	Mean	Mean	N	SD	SG
J11.2	1.07	7	6.14	5.52	19	1.17	J11.2
J11.3	2.53	6	4.00	4.16	18	2.01	J11.3
J11.4	2.16	6	4.33	3.72	18	1.93	J11.4
J.12.2	1.41	165	4.89	4.79	253	1.34	J.12.2
J.12.3	1.23	158	5.13	5.06	245	1.17	J.12.3
J.12.4	1.16	152	5.19	5.09	237	1.14	J.12.4
J13.2	1.58	168	4.85	4.96	246	1.45	J13.2
J13.3	1.26	160	5.41	5.45	237	1.17	J13.3
J13.4	1.34	153	5.43	5.43	229	1.26	J13.4
J14.2	1.53	149	5.32	5.12	226	1.51	J14.2
J14.3	1.41	142	5.42	5.34	218	1.36	J14.3
J14.4	1.47	138	5.33	5.25	212	1.39	J14.4
J15.2	1.73	104	5.28	5.47	166	1.44	J15.2
J15.3	1.28	99	5.52	5.54	159	1.17	J15.3
J15.4	1.30	95	5.48	5.51	152	1.20	J15.4
J16.2	1.23	199	4.74	4.79	261	1.16	J16.2
J16.3	1.06	191	5.63	5.57	252	1.09	J16.3
J16.4	1.19	184	5.57	5.53	243	1.15	J16.4
J17.2	1.88	206	4.91	4.91	265	1.74	J17.2
J17.3	1.60	198	4.98	5.00	256	1.49	J17.3
J17.4	1.51	194	4.99	4.99	248	1.45	J17.4
J18.2	1.42	183	5.58	5.43	249	1.37	J18.2
J18.3	1.33	176	5.61	5.54	238	1.28	J18.3
J18.4	1.25	169	5.64	5.57	230	1.21	J18.4
J19.2	1.24	150	5.38	5.29	244	1.09	J19.2
J19.3	1.11	146	5.46	5.44	236	1.05	J19.3
J19.4	1.13	143	5.44	5.40	227	1.03	J19.4
J20.2	1.19	79	5.44	5.23	142	1.12	J20.2
J20.3	1.44	79	4.67	4.70	142	1.33	J20.3
J20.4	1.46	77	4.68	4.75	140	1.39	J20.4
N3	1.63	95	5.20	5.29	160	1.19	N3
N4	1.47	91	4.98	4.91	156	1.33	N4
N5	1.43	87	5.13	4.61	151	1.42	N5
O3	0.84	81	5.98	5.83	175	0.78	O3
O4	1.00	79	4.86	4.74	173	1.04	O4
O5	1.17	76	4.67	4.61	167	1.11	O5

5.9. Additional Gender Analysis

Although not the focus of this dissertation, an additional gender analysis was performed for the Japanese and Singaporean participants' data. Analysis is only reported for those domains where statistically significant differences were found. 80 females and 80 males were randomly selected from the Singaporean participants and 80 males were randomly selected from the Japanese participants who had rated the domain a 6 or 7 out of 7, and all of the Japanese females who had rated the domain a 6 or 7 out of 7 were analyzed to explore for gender differences in strategy choice. This was due to the low number of Japanese female participants who took part in the research (n=80, after two of the Japanese female participants' questionnaires were thrown-out, as they were not completed, and one was thrown-out as all of the answers were 7).

Gender differences were found on the domains of: Most Desired Self-Identity Trait (Singapore only), Ability to get a BF/GF, Athletic Ability, Careful with Money, Most Important Friendship Characteristic, and Independence. Surprisingly, domains not mentioned had no significant gender difference in strategy choice. In the following figures, male participants' ratings are in blue and labeled as M, while female participants' ratings are in pink and labeled as F. General gender descriptive statistics are presented first.

Table 50. General Gender Descriptive Statistics for Japanese and Singaporean Participants.

JAPAN	160
Male	80
Female	80
Age Range	16 to 17
Average Age	16.52

Singapore	160
Male	80
Female	80
Age Range	16 to 18
Average Age	16.41

5.9.1. Most Desired Self-Identity Trait

Students' ratings on his or herself and two close schoolmates on the most desired identity trait that the student designated as highly self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2 mixed design ANOVA was conducted. Target persons (self vs close others), the within-subject variable x Gender (M vs F), the between subject variable. Descriptive statistics on ratings of value for the most desired identity domain are shown in Table 51. See Figure 51.

Table 51. Means and Standard Deviation of Ratings on Most Desired Identity Trait in Singapore for Male (n=80) and Female (n=80).

SG	Male		Female	
	M	*SD*	*M*	*SD*
Self	5.35	1.01	4.75	1.02
Close Other 1	5.39	1.20	5.05	1.03
Close Other 2	5.12	1.32	5.14	1.01

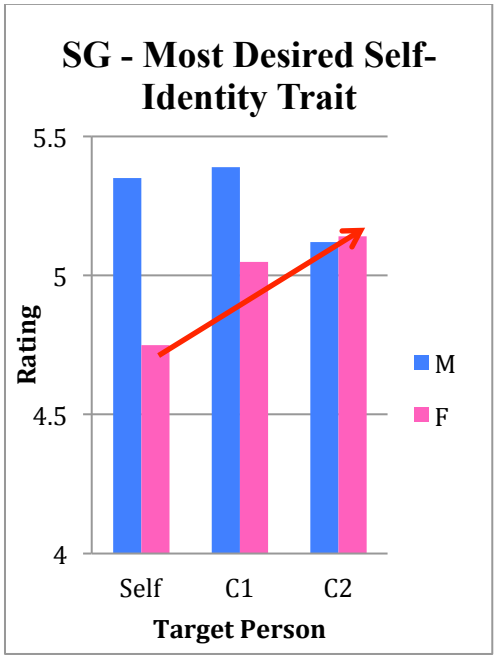


Figure 51. Student ratings of perceived performance of the self and two close others on the most desired identity trait the student designated as highly self-relevant to their self-definition, by gender. Males and females rate the self significantly different on this domain.

Analysis

The data was analyzed by a 3x2 mixed design ANOVA. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was not significant, F(1.678, 253.355) =1.073, *ns*. The simple main effect of gender was significant, F(1, 151) =5.821, *p=.017*, η_p^2=.037. An interaction effect between target and gender factors was significant, F(1.678, 253.355) =3.705, p=.033. η_p^2=.024.

For males, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed no difference between self and close other 1 (p=.995) and for close other 2 (p=.472), and marginally significant difference between close other 1 and close other 2 (p=.076). For females, multiple pairwise comparisons using the Sidak method revealed no significant difference between self and close other 1 (p=.271) and marginally significant for the self and close other 2 (p=.091), and no significant difference between close other 1 and close other 2 (p=.841). There was a significant difference between the male self and female self (p<.001), and a marginal significant difference between male and female close other 1 (p=.073) and not for male and female close other 2 ratings (p=.902).

5.9.2. Ability to get a Boyfriend/Girlfriend

Students' ratings on his or herself and two close schoolmates on ability to get a boyfriend/girlfriend that the student designated as highly self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) was the within-subject variable x Gender (Male vs Female) x Culture (Japan vs Singapore) were the between subject variables. Descriptive statistics on ratings on the ability to get a boyfriend/girlfriend for Japan and Singapore are shown in Table 52 & 53. See Figure 52.

Table 52. Means and Standard Deviation of Ratings on Ability to Get a Boyfriend/Girlfriend in Japan for Male (*n*=80) and Female (*n*=39).

JP	Male		Female	
	M	*SD*	*M*	*SD*
Self	4.13	1.52	4.13	1.11
Close Other 1	4.63	1.72	5.58	1.18
Close Other 2	4.63	1.34	5.56	1.26

Table 53. Means and Standard Deviation of Ratings on Ability to Get Boyfriend/Girlfriend in Singapore for Male (n=54) and Female (n=42).

SG	Male		Female	
	M	*SD*	*M*	*SD*
Self	4.44	1.18	3.90	1.27
Close Other 1	4.68	1.33	4.43	1.23
Close Other 2	4.91	1.66	4.83	1.12

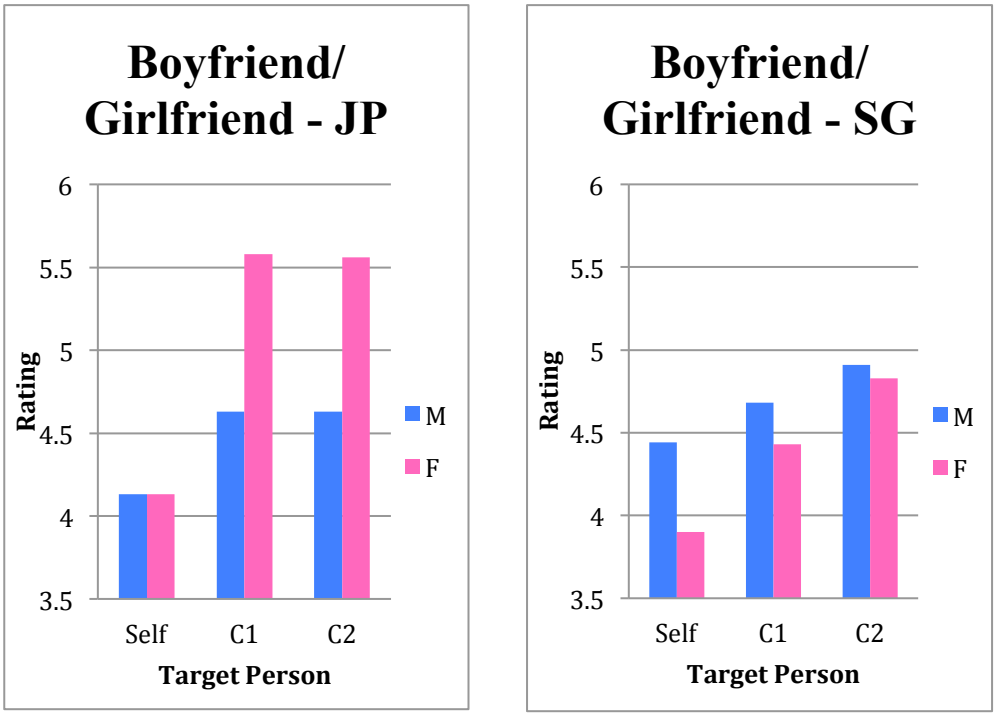


Figure 52. Student ratings of perceived performance of the self and two close others on ability to get a boyfriend/girlfriend, which the student designated as highly self-relevant to their self-definition, by gender. Japanese and Singaporeans employ the secondary reflection process, especially Japanese females.

Analysis

A 3x2x2 mixed design ANOVA was conducted. The ANOVA revealed the main effect of target was significant, $F(2, 410) = 31.338$, $p < .001$. $\eta_p^2 = .133$, but not for the gender factor, $F(1, 205) = 1.030$, $p = .311$. $\eta_p^2 = .005$. The main effect of culture was not significant $F(1, 205) = 2.190$, *ns*. An interaction effect between target and culture factors was significant, $F(2, 410) = 3.686$, $p = .027$. $\eta_p^2 = .018$. An interaction effect between gender and culture factors was significant, $F(1, 205) = 8.263$, $p < .004$. $\eta_p^2 = .039$. An interaction effect between target and gender factors was significant, $F(2, 410) = 6.102$, $p = .002$. $\eta_p^2 = .029$. An interaction effect among target, gender, and culture factors was not significant, $F(2, 410) = 1.606$, *ns*.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 mixed design ANOVA. The Japanese data will be reported first. The simple main effect of the target was significant, $F(2, 224) = 21.978$, $p < .001$, $\eta_p^2 = .164$. The simple main effect of gender was significant, $F(1, 112) = 7.697$, $p = .006$, $\eta_p^2 = .064$. An interaction effect between target and gender factors was significant, $F(2, 224) = 5.813$, $p = .003$. $\eta_p^2 = .049$. For males, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a significant difference between self and close other 1 ($p = .037$) and a marginal significant difference for self and close other 2 ($p = .058$), and no significant difference between close other 1 and close other 2 ($p = 1$). For females, multiple pairwise comparisons using the Sidak method revealed a significant difference between self and close other 1 ($p < .001$) and for self and close other 2 ($p < .001$), and no significant difference between close other 1 and close other 2 ($p = 1$). There was no significant difference between the male self and female self ($p = .667$), but there was a significant difference between the male close other 1 and female close other 1 ($p = .004$), and for male and female close other 2 ($p = .001$).

Simple main effects were then examined for Singapore. The Mauchly's test of sphericity was significant ($p < .05$) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, $F(1.785, 165.966) = 11.757$, $p < .001$, $\eta_p^2 = .112$. The simple main effect of gender was not significant, $F(1, 93) = 1.697$, *ns*. There was no interaction effect between target and gender factors, $F(1.785, 165.966) = 1.128$, $p = .321$. $\eta_p^2 = .012$.

5.9.3. Athletic Ability

Students' ratings on his or herself and two close schoolmates on athletic ability that the student designated as highly self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) was the within-subject variable x Gender (Male vs Female) x Culture (Japan vs Singapore) were the between subject variables. Descriptive statistics on ratings on athletic ability for Japan and Singapore are shown in Table 54 & 55. See Figure 53.

Table 54. Means and Standard Deviation of Ratings on Athletic Ability in Japan for Male (*n*=80) and Female (*n*=55).

JP	Male		Female	
	M	*SD*	*M*	*SD*
Self	4.96	1.32	4.25	1.47
Close Other 1	5.14	1.59	4.20	1.40
Close Other 2	4.94	1.60	4.96	1.39

Table 55. Means and Standard Deviation of Ratings on Athletic Ability in Singapore for Male (*n*=80) and Female (*n*=71).

SG	Male		Female	
	M	*SD*	*M*	*SD*
Self	5.49	1.06	4.99	1.10
Close Other 1	5.05	1.24	4.35	1.28
Close Other 2	4.80	1.45	4.69	1.29

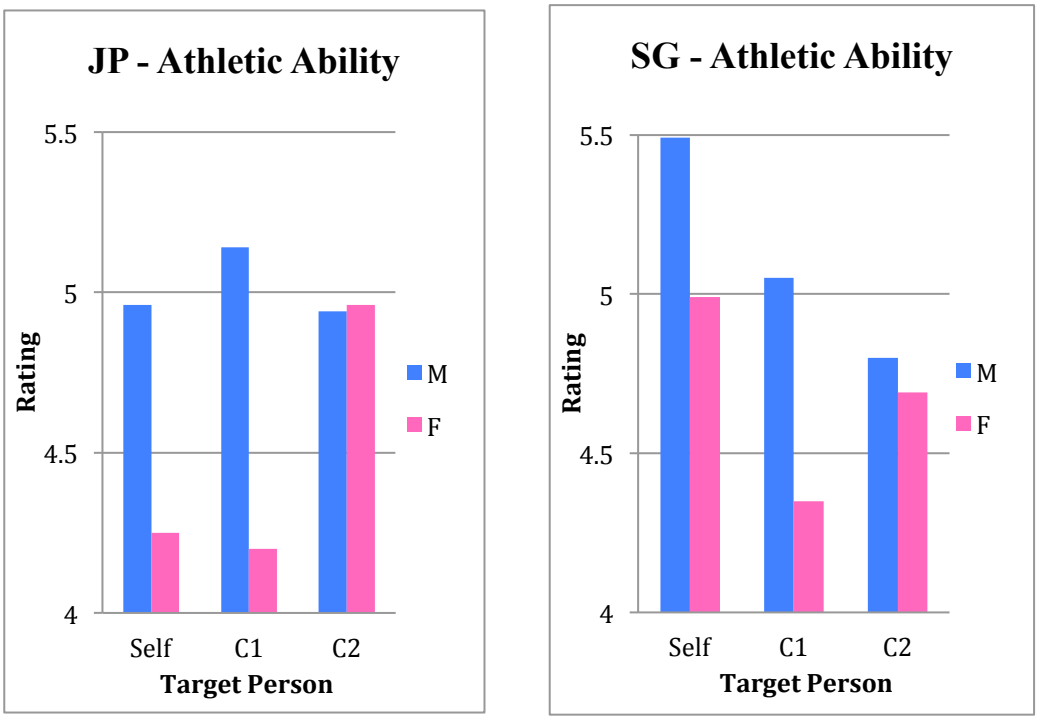


Figure 53. Student ratings of perceived performance of the self and two close others on athletic ability, which the student designated as highly self-relevant to their self-definition, by gender. Japanese males rated the self and close other 1 significantly higher than did the females, although no clear strategy choice was apparent. Singaporeans employed the comparison process on this domain, and males rated this domain significantly higher.

Analysis

A 3x2x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was marginally significant, F(1.935, 522.574) =.2.895, p=.058. η_p^2=.011. The main effect of gender was significant, F(1, 270) =18.011, p<.001. η_p^2=.063. The main effect of culture was not significant, F(1, 270) =2.049, *ns*. An interaction effect between target and culture factors was significant, F(1.935, 522.574) =7.144, p=.001. η_p^2=.026. An interaction effect between gender and culture factors was not significant, F(1, 270) =.183, *ns*. An interaction effect between target and gender factors was significant, F(1.935, 522.574) =6.521, p=.002. η_p^2=.024. An

interaction effect among target, gender, and culture factors was not significant, $F(1.935, 522.574) = .404$, *ns*.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 mixed design ANOVA. The Japanese data will be reported first. The simple main effect of the target was not significant, $F(2, 244) = 1.504$, *ns*. The simple main effect of gender was significant, $F(1, 122) = 9.206$, $p = .003$, $\eta_p^2 = .070$. An interaction effect between target and gender factors was significant, $F(2,244) = 3.351$, $p = 037$. $\eta_p^2 = .027$. For males, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed no difference between self and close other 1 ($p = .767$), and a for self and close other 2 ($p = .999$), and between ratings close other 1 and close other 2 ($p = .753$). For females, multiple pairwise comparisons using the Sidak method revealed no significant difference between self and close other 1 ($p = .943$) and for self and close other 2 ($p = .157$), and a marginal significant difference between close other 1 and close other 2 ($p = .051$). There was a significant difference between the male self and female self of $p = .014$, and between the male close other 1 and female close other 1 ($p = .001$), and not significant for male and female close other 2 ($p = .921$).

Simple main effects were then examined for Singapore. The Mauchly's test of sphericity was significant ($p < .05$) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, $F(1.894, 280.269) = 12.388$, $p < .001$, $\eta_p^2 = .077$. The simple main effect of gender was significant, $F(1, 148) = 8.741$, $p = .004$, $\eta_p^2 = .056$. An interaction effect between target and gender factors was significant, $F(1.894, 280.269) = 2.951$, $p = .057$. $\eta_p^2 = .020$. For males, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a significant difference between self and close other 1 ($p = .011$) and for close other 2 ($p < .001$), and no significant difference between close other 1 and close other 2 ($p = .372$). For females,

multiple pairwise comparisons using the Sidak method revealed a significant difference between self and close other 1 (p<.001) and no significant difference for the self and close other 2 (p=.230), and no significant difference between close other 1 and close other 2 (p=.236). There was a significant difference between the male self and female self (p<.006), and a significant difference between male and female close other 1 (p=.001) and no significant difference between for male and female close other 2 ratings (p=.533).

5.9.4. Careful with Money

Students' ratings on his or herself and two close schoolmates on being careful with money that the student designated as highly self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) was the within-subject variable x Gender (Male vs Female) x Culture (Japan vs Singapore) were the between subject variables. Descriptive statistics on ratings on being careful with money for Japan and Singapore are shown in Table 56 & 57. See Figure 54.

Table 56. Means and Standard Deviation of Ratings on Being Careful with Money in Japan for Male (*n*=80) and Female (*n*=71).

JP	Male		Female	
	M	*SD*	*M*	*SD*
Self	5.14	1.55	5.38	1.34
Close Other 1	4.38	1.76	4.86	1.16
Close Other 2	4.08	1.65	4.82	1.27

Table 57. Means and Standard Deviation of Ratings on Being Careful with Money in Singapore for Male (*n*=80) and Female (*n*=80).

SG	Male		Female	
	M	*SD*	*M*	*SD*
Self	5.20	1.29	4.86	1.19
Close Other 1	4.94	1.51	4.81	1.27
Close Other 2	4.99	1.22	4.73	1.13

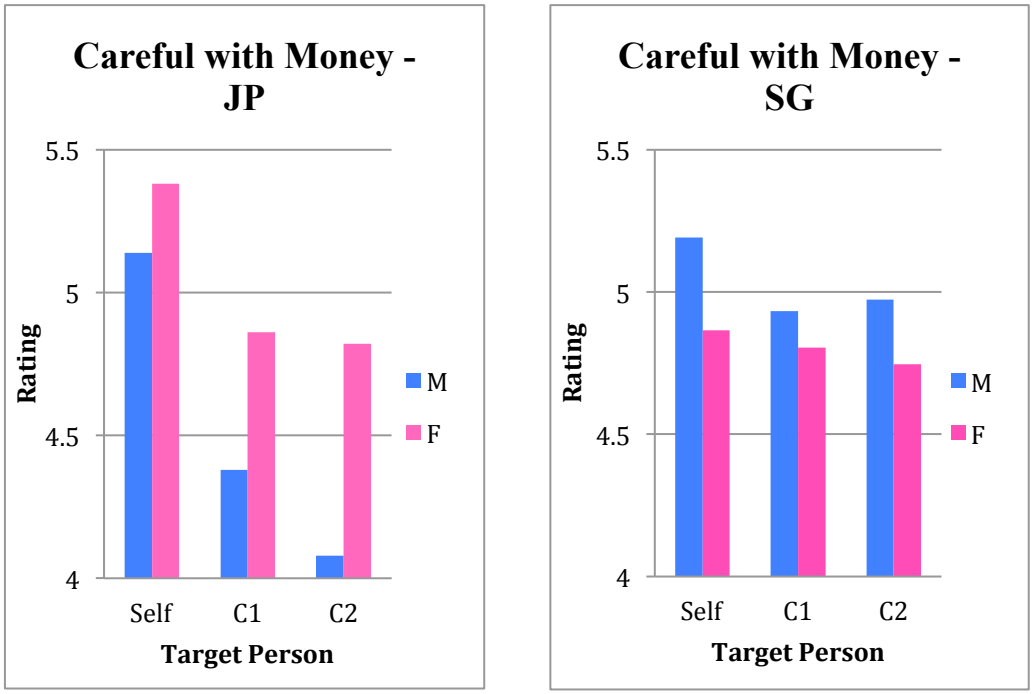


Figure 54. Student ratings of the self and two close others on perceived amount of being careful with money, by gender. Japanese females rated "Being Careful with Money," significantly higher than males, although both sexes employ the comparison process. This was not the case with the Singaporean participants.

Analysis

A 3x2x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.823, 574.280) =17.873, p<.001. η_p^2=.054, and the main effect of gender was not significant, F(1, 315) =1.186, *ns*. The main effect of culture was not significant F(1, 315) =1.601, *ns*. An interaction effect between target and culture factors was significant, F(1.823, 574.280) =7.433, p=.001. η_p^2=.023. An interaction effect between gender and culture factors was significant, F(1, 315) =9.751, p=.002. η_p^2=.030. An interaction effect between target and gender factors was not significant, F(1.823, 574.280) =1.470, *ns*. An interaction effect among target, gender, and culture factors was not significant, F(1.823, 574.28068) =.874, *ns*.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 mixed design ANOVA. The Japanese data will be reported first. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, $F(1.712, 268.827) = 19.602$, p<001, η_p^2=.111. The simple main effect of gender was significant, $F(1, 157) = 8.158$, p=.005, η_p^2=.049. An interaction effect between target and gender factors was not significant, $F(1.712, 268.827) = 1.603$, *ns*. Multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a significant difference between the self and close other 1 (p<.001) and a significant difference for self and close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.341).

Simple main effects were then examined for Singapore. The simple main effect of the target was not significant, $F(2, 316) = 1.485$, *ns*. The simple main effect of gender was not significant, $F(1, 158) = 2.262$, *ns*. An interaction effect between target and gender factors was not significant, $F(2, 316) = .479$, *ns*.

5.9.5. Most Important Friendship Characteristic

Students' ratings on his or herself and two close schoolmates on the possession of the most important friendship characteristic to the self that the student designated as highly self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) was the within-subject variable x Gender (Male vs Female) x Culture (Japan vs Singapore) were the between subject variables. Descriptive statistics on ratings on the possession of the most important friendship characteristic to the self for Japan and Singapore are shown in Table 58 & 59. See Figure 55.

Table 58. Means and Standard Deviation of Ratings on the Possession of the Most Important Friendship Characteristic to the Self in Japan for Male (*n*=80) and Female (*n*=69).

JP	Male		Female	
	M	*SD*	*M*	*SD*
Self	4.73	1.31	4.37	1.36
Close Other 1	4.91	1.50	5.42	1.29
Close Other 2	4.97	1.44	5.22	1.24

Table 59. Means and Standard Deviation of Ratings on the Possession of the Most Important Friendship Characteristic to the Self in Singapore for Male (*n*=69) and Female (*n*=80).

SG	Male		Female	
	M	*SD*	*M*	*SD*
Self	5.14	1.24	5.16	1.29
Close Other 1	5.49	1.32	5.08	1.47
Close Other 2	5.35	1.36	4.81	1.42

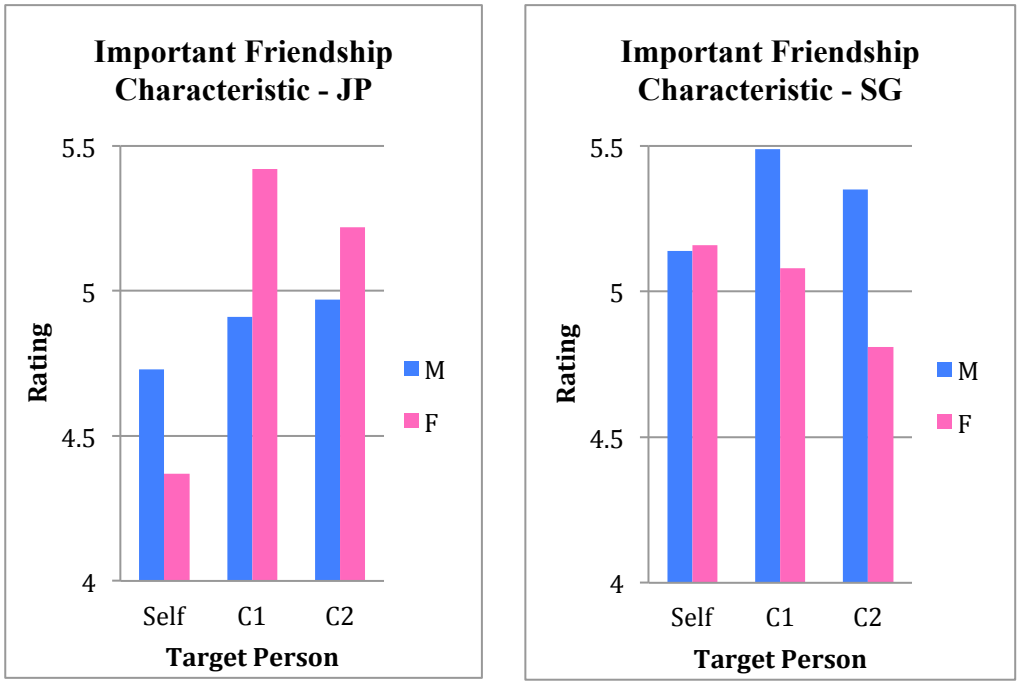


Figure 55. Student ratings of perceived performance of the self and two close others on possession of the most important friendship characteristic to the self, by gender.

Analysis

A 3x2x2 mixed design ANOVA was conducted. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The ANOVA revealed the main effect of target was significant, F(1.669, 467.359) =9.130, p<.001. η_p^2=.032, the main effect for gender was not significant, F(1, 280) =1.258, *ns*. The main effect of culture was significant F(1, 280) =5.252, p=.023. η_p^2=.018. An interaction effect between target and culture factors was significant, F(1.669, 467.359) =7.156, p=.002. η_p^2=.025. An interaction effect between gender and culture factors was not significant, F(1, 280) =2.034, *ns*. An interaction effect between target and gender factors was not significant, F(1.669, 467.359) =1.066, *ns*. An interaction effect among target, gender, and culture factors were significant, F(1.669, 467.359) =8.488, p=.001. η_p^2=.029.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 mixed design ANOVA. The Japanese data will be reported first. The Mauchly's test of sphericity was significant (p<.001) so that the adjusted degrees

of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, $F(1.654, 219.922) = 14.708$, $p < .001$, $\eta_p^2 = .100$. The simple main effect of gender was not significant, $F(1, 133) = .042$, *ns*. An interaction effect between target and gender factors was significant, $F(1.654, 219.922) = 7.027$, $p < .002$. $\eta_p^2 = .050$. For males, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed no difference between self and close other 1 ($p = .739$) and for self and close other 2 ($p = .533$), and for close other 1 and close other 2 ($p = .948$). For females, multiple pairwise comparisons using the Sidak method revealed a significant difference between self and close other 1 ($p < .001$) and for self and close other 2 ($p < .001$), and no significant difference between close other 1 and close other 2 ($p = .576$). There was a significant difference between the male self and female self ($p = .024$), and marginally different between the male close other 1 and female close other 1 ($p = .075$), and not significant for male and female close other 2 ($p < .398$).

Simple main effects were then examined for Singapore. The Mauchly's test of sphericity was significant ($p < .001$) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was not significant, $F(1.681, 247.114) = 1.212$, *ns*. The simple main effect of gender was marginally significant, $F(1, 147) = 3.614$, $p = .059$, $\eta_p^2 = .024$. An interaction effect between target and gender factors was not significant, $F(1.681, 247.114) = 2.416$, *ns*.

5.9.6. Independence

Students' ratings on his or herself and two close schoolmates on being independent that the student designated as highly self-relevant were examined. Ratings of performance were analyzed by analyses of variance (ANOVAs). A 3x2x2 mixed design ANOVA was conducted. Target persons (self vs close others) was the within-subject variable x Gender (Male vs Female) x Culture (Japan vs Singapore) were the between subject variables. Descriptive statistics on being independent for Japan and Singapore are shown in Table 60 & 61. See Figure 56.

Table 60. Means and Standard Deviation of Ratings on Being Independent in Japan for Male (*n*=80) and Female (*n*=46).

JP	Male		Female	
	M	*SD*	*M*	*SD*
Self	4.63	1.34	4.63	1.47
Close Other 1	4.68	1.40	4.84	1.36
Close Other 2	4.46	1.37	5.00	1.53

Table 61. Means and Standard Deviation of Ratings on Being Independent in Singapore for Male (*n*=80) and Female (*n*=80).

SG	Male		Female	
	M	*SD*	*M*	*SD*
Self	5.73	0.87	5.28	1.18
Close Other 1	5.11	1.33	5.05	1.36
Close Other 2	4.84	1.29	5.01	1.22

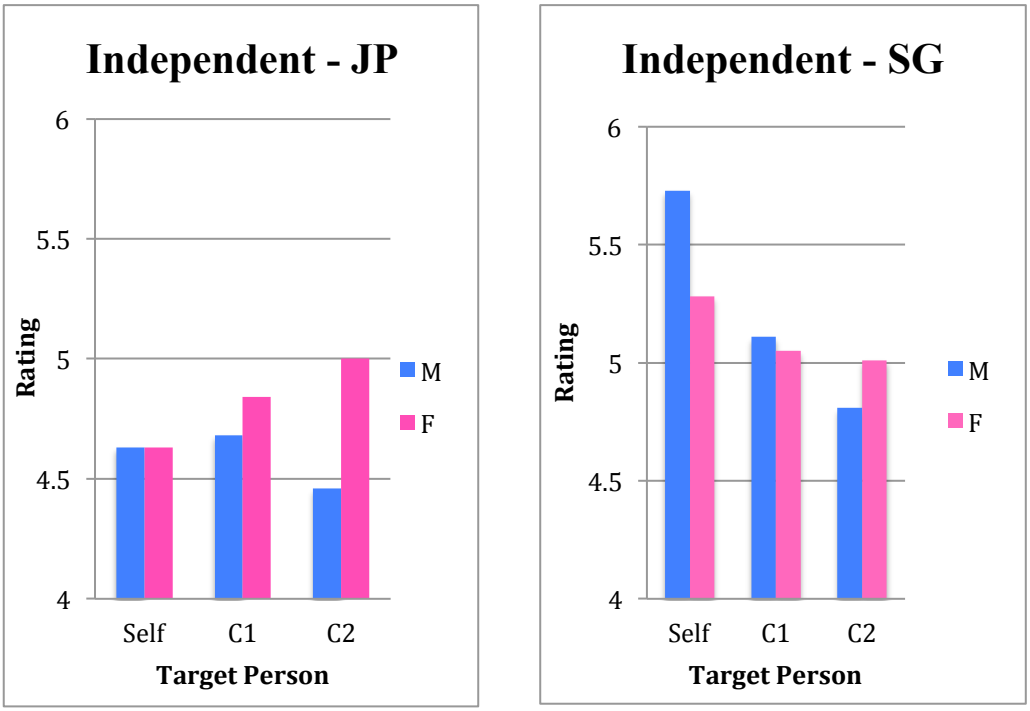


Figure 56. Student ratings of perceived performance of the self and two close others on being independent, which the student designated as highly self-relevant to their self-definition, by gender. Singaporean males ratings were significantly higher than Singaporean females and both Japanese sexes. Cultural and gender differences are evident.

Analysis

A 3x2x2 mixed design ANOVA was conducted. The ANOVA revealed the main effect of target was significant, $F(2, 536) = 4.058$, $p = .018$. $\eta_p^2 = .015$. The main effect of gender was not significant, $F(1, 268) = .431$, *ns*. The main effect of culture was significant, $F(1, 268) = 14.535$, $p < .001$. $\eta_p^2 = .051$. An interaction effect between target and culture factors was significant, $F(2, 536) = 7.760$, $p < .001$. $\eta_p^2 = .028$. An interaction effect between gender and culture factors was not significant, $F(1, 268) = 1.636$, *ns*. An interaction effect between target and gender factors was significant, $F(2, 536) = 4.222$, $p = .015$. $\eta_p^2 = .016$. An interaction effect among target, gender, and culture factors was not significant, $F(2, 536) = .047$, *ns*.

Simple main effects were then examined. The data was divided by culture and analyzed separately with a 3x2 mixed design ANOVA. The Japanese data will be reported

first. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was not significant, F(1.870, 209.416) =.340, *ns*. The simple main effect of gender was not significant, F(1, 112) =1.221, *ns*. An interaction effect between target and gender factors was not significant, F(1.870, 209.416) =1.670, *ns*.

Simple main effects were then examined for Singapore. The Mauchly's test of sphericity was significant (p<.05) so that the adjusted degrees of freedom Greenhouse-Geisser were applied. The simple main effect of the target was significant, F(1.919, 299.415) =15.119, p<.001, η_p^2=.088. The simple main effect of gender was not significant, F(1, 156) =.306, *ns*. An interaction effect between target and gender factors was marginally significant, F(1.919, 299.415) =2.863, p=.061. η_p^2=.018. For males, multiple pairwise comparisons using the Sidak method (Sidak, 1967) revealed a significant difference between self and close other 1 (p=.001) and for close other 2 (p<.001), and no significant difference between close other 1 and close other 2 (p=.252). For females, multiple pairwise comparisons using the Sidak method revealed a no significant difference between self and close other 1 (p=.220) and marginally significant difference for the self and close other 2 (p=.067), and no significant difference between close other 1 and close other 2 (p=.995). There was a significant difference between the male self and female self (p<.025), and no significant difference between male and female close other 1 (p=.775) and no significant difference between for male and female close other 2 ratings (p=.319).

5.10. Concluding the Results Section

In this chapter, the data was analyzed and found statistically significant supporting evidence of the comparison, reflection, and secondary reflection processes, advocating the SERM model's usefulness in understanding and explaining adolescent cognition around the world. Statistically significant evidence of the comparison process and the secondary reflection process on high self-relevant domains was found in the following domains for both cultures. See Table 62.

Table 62. Similarities in Strategy Choice for Adolescents in Both Cultures.

CP Strategy For Both Cultures
Important Free-Time Activity
Important Club/Team Activity
Positive Self-Identity Trait
Contribute to Friends' Circle
Area of Great Pride
Careful with Money
Independence (Tendency)

SRP Strategy For Both Cultures
Overall Ability in School
Wealth
Money Spent Monthly
Good Personality
Good Mood
Good Friend
Attractiveness
Ability to get a GF/BF

In the left following table, no statistically significant (NS) evidence on a common strategy employed to maintain a positive self was found on the high self-relevant domains for both cultures, and in the following table on the right, a significant cultural difference in strategy choice was evident. See Table 63.

Table 63. Similarities and Differences in Strategy Choice on the Domains by Adolescents.

NS Ratings on Target Persons
Most Desired Identity Trait
Positivity
Health
Accomplish Goals in Life
Family Background
Saving Money
Good Family Relations
Morals

Differences in Strategy Choice	JP Strategy	SG Strategy
Fashion	SRP	CP
Cooperation	SRP	CP
Athletic Ability	<SRP	CP
Humor	SRP	NS
Rebelliousness	SRP	NS
Best Friendship Characteristic	SRP	NS
Special Point in School	SPR&CP	CP
Important School Subject	CP	<SRP

The analysis provides researchers and educators with unique findings and a look into how adolescents in Japan and Singapore see their own capabilities and traits and those of two close others, maintain a positive self by either avoiding comparison or a relationship maintenance technique, their interests (academic or extracurricular), and differences and similarities in culture and gender. The next chapter discusses the reported results and the implications.

Food for Thought

Which order appears to be more accurate for those in the "once in a life time" age of adolescence?

A.
1. Who am I?
2. Who is my friend?

B.
1. Who is my friend?
2. Who am I?

C.
Who are we (self and friend)?

Chapter 6

Discussion, Conclusions, Implications

Some day you will find out that there is far more happiness
in another's happiness than in your own.

(Honoré de Balzac)

6.1. Introduction

This research was interested in evidence of the SERM model's (Isozaki, 2012) ability to explain and predict behavior on much larger scale than the SEM model (Tesser, 1988) allows. It was especially interested in finding evidence of the recently discovered secondary reflection process's prevalence by examining Japanese and Singaporean adolescents. The SERM model's posited comparison, reflection, and secondary reflection processes will all need to be employed in order to maintain a positive self-evaluation.

The present unique dissertation covers a wide range of new domains to explore the strategy choice of adolescents in their struggle to maintain a positive self. The intriguing age of human adolescence is a time for exploration of the self and is the step just before moving forward into a more stable self-identity in adulthood (e.g., Rice & Dolgin, 2005). The findings in the results section of this dissertation have painted a new picture of what adolescents unconsciously value, how they see themselves and their closest others, and the strategy they significantly choose when compromising for a relationship or avoiding possibly self-threatening comparisons.

This chapter moves forward with discussion on the facts found in the results section, and engages in productive speculation as to how the SERM model is able to

explain how adolescents maintain a positive self-evaluation through these new findings, then turns to the limitations, future research needed, and finally, implications for educators and researchers.

6.2. Restatement of the Hypotheses

It was hypothesized that: 1) There will be clear evidence of the SERM model's comparison, reflection, and secondary reflection processes on high and low self-relevant domains for Japanese and Singaporean adolescents. 2) The comparison process will be applied to core high self-relevant domains. 3) Adolescents will choose the secondary reflection process on non-threatening high self-relevant domains (e.g., wealth, and personality characteristics). 4) Japanese adolescents will employ the secondary reflection process more often than adolescents in Singapore because of Japan's weighty focus on interdependent cultural values (See Chapter 3). 5) Japanese and Singaporean adolescents will differ on strategy choice on the domains of sports, important school subject, and academic ability. Japanese adolescents will be more modest in their answers. 6) Students will choose activities or domains not related to school activities in maintaining a positive self. This due to free-time activities being governed less by authority figures as school activities are.

The proceeding section continues with first, an overview of the domains sampled for high and low self-relevance, followed by discussion on domains with similar strategy choice (CP and then SRP), next domains with target persons rated with no common strategy choice, then domains rated with significantly different strategies by culture, and finally a short discussion on gender findings.

6.3. Discussion on Domains Sampled for High and Low Self-Relevance

The discussion section continues with an overview of the domains sampled for high and low self-relevance in search of the basic comparison and reflection processes.

6.3.1. Ratings of Performance on School Subjects

The results for the Japanese participants are discussed first. Japanese participants did rate themselves as performing better than close others on a highly self-relevant subject and worse on a low self-relevant subject. Reflection and comparison strategies are clear. Target x relevance interaction was highly significant. Japanese participants rated themselves as performing better than close other 1 and close other 2 on a self-relevant subject (See Figure 6). Ratings on a low self-relevant school subject had the greatest significant difference for self vs close others on ratings of performance. Overall close others were both rated very similarly with the exception of close other 2 being rated modestly lower on a low self-relevant subject. The results point directly to self-enhancement through the comparison and reflection processes, which demonstrates to teachers how high self-relevant school subjects are important to high school students' self-definition in Japan.

The results for the Singaporean participants follow. Singaporean participants did not rate themselves as performing better than close others on a highly self-relevant subject, but did rate their perceived performance worse than close others on a low self-relevant subject. The reflection strategy is clear. Target x relevance interaction was highly significant. Students rated themselves as performing marginally worse on a high self-relevant subject suggesting the secondary reflection process on this domain is more prominent than a comparison process. Ratings on a low self-relevant school subject had the greatest significant difference for self vs close others on ratings of performance. Overall

close others were both rated very similarly. The results may be interpreted as Singaporean participants employ the reflection process on a low self-relevant school subject, but do not consider high self-relevant school subjects to be as important to one's self-definition as do Japanese adolescents due to differences in the education system (discussed below).

The importance of an important high self-relevant school subject for the high school students' self-definition in Japan and Singapore appears to be allotted different weight. While visiting a high school in Singapore, the principal mentioned that Singapore's Ministry of Education regards Art classes, P.E., and Music classes to be only elective classes, and are not nearly as common as those in Japan. See https://www.moe.gov.sg/home. When asked to choose the most self-relevant school subject not to fail at, Singaporean participants actually crossed off the activities of P.E., Music, and Art. See Appendix H.

This domain was 2nd most popularly rated as highly self-relevant by Japanese participants and in 8th place for Singaporean participants. There is less variety in school subjects in Singapore lowering the chance of an adolescent to use this domain with the comparison process, but this does not mean the Singaporean students would not use the comparison process, if a greater number of less objective subjects were offered in Singapore (e.g., Art, Music, P.E.). This may be a contributing factor as education for 16 to 18 year olds in Singapore focuses on the mathematics, the sciences, and language. Also, this domain may be seen very objectively, so as not to allow for distortion on ratings of ability, as scores are clearly understood in the competitive classroom (e.g., Festinger, 1954). Relatively, adolescents in Singapore do not maintain a positive self through an academic niche (a high self-relevant subject of higher perceived ability than the close other) as much as Japanese adolescents do (See Figure 6), but instead more often maintain a positive self through extracurricular activities (e.g., Figure 8).

6.3.2. Ratings of Performance on Free-Time Activities

As previous studies have found evidence of the importance of free-time activities to adolescents (e.g., Kleiber, Larson, & Csikszentmihalyi, 1986; Pierce, 2013; Shanahan & Flaherty, 2001), free-time activities were predicted to be highly relevant to high school students in both cultures and therefore show strong evidence of the dynamic comparison and reflection processes. As predicted, one of the largest significant difference in ratings on self vs close others was found in ratings of free-time activities (See Figure 8). For both Japan and Singapore, the self was rated as significantly higher than both close others on high self-relevant free-time activities, and significantly lower than close others on low self-relevant activities.

The domain "Free-Time Activity" was rated with the highest average mean out of all the domains for both cultures; a staggering 6.41 average for Japanese participants and 6.2 average for Singaporean participants out of a 1 to 7 point scale, and had one of the greatest differences in ratings between self and close others. The domain "Free-Time Activity," was also listed in the top five most important domains in maintaining a positive self by participants in both cultures and the comparison process was significantly employed.

Participants on this domain overwhelmingly felt superior to his or her close others, giving him or her self a niche to be proud of when struggling to maintain a positive self-evaluation, and is thus, compelled protect the self on this domain (e.g., Sherman & Cohen, 2006). The social pressure of the importance of academic ability is ever present, and grades and test scores in the academic world are clear indicators of capabilities, which make avoiding comparisons more difficult than domains in one's free-time which are not as rigidly measured.

6.3.3. Ratings of Identity Traits

Identity traits were predicted to be an index high school students display strong evidence of comparison and reflection processes, but the self was rated similarly to both close others on the most desired identity trait, and significantly lower than close others on a low self-relevant identity trait (See Figure 9). Interesting cultural similarities were observed here. Self-enhancement was not evident with either, the comparison process, or the secondary reflection process on the high self-relevant trait. In other words, although participants in both cultures wrote down a desired identity trait, which was most important to the self, there was no popular consensus on the self possessing more or less of the trait than close other 1 and 2. Students did take clear satisfaction in only the reflection process on this domain.

6.3.4. Ratings of Performance on Club/Team Activities

Clear evidence of the comparison process was employed to avoid negative self-evaluations by threatening comparisons, students rated friends significantly lower than the self on a high self-relevant club/team activity. To increase self-evaluation by reflection, students rated their own ability on a low self-relevant club/team activity lower than close others (See Figure 10 and 11). Target x relevance interaction was statistically significant for each culture.

The most notable cultural finding while examining the difference in performance ratings on the self and close others on a high self-relevant club/team activity was that, Japanese participants rated the self and others significantly higher than the Singaporean participants, as the Japanese average mean for the self on this domain was one of the highest (6.27 out of a 1 to 7 point scale), although strategy choice was the same. This difference may be because it is more common or even mandatory for high school students

in Tokyo to be part of a school club/team (e.g., Cave, 2004). 65 percent of Japanese participants and 63 percent of Singaporean participants rated this domain as highly self-relevant. Also, Japanese participants employed a stronger reflection strategy between the self and close other 1 than did Singaporean participants.

Free-time activities and club/team activities appear to be more important to maintaining a positive self (through avoiding the comparison process) than academic subjects, due to the much greater rating difference between self and close others for both cultures.

6.4. Significant Evidence of the Secondary Reflection Process by Both Cultures.

Individuals were predicted to choose certain non-threatening high self-relevant activities in which to promote close others for the good of the relationship by employment of the secondary reflection strategy (Isozaki, 2012). Indirect feelings of self-enhancement by supporting close others or relationships, even on high self-relevant activities or domains, appear to outweigh promoting only his or her self directly (e.g., Campbell, Sedikides, Reeder, Elliot, 2000). In the following section, domains in which both Japanese participants and Singaporean participants designated as highly self-relevant, and the secondary reflection process strategy was applied, are discussed.

6.4.1. Overall Ability in School

Clear evidence of the secondary reflection process was evident in both cultures on "Overall Ability in School." Adolescents in both cultures appear to perceive their friends as better at overall academics, especially Singaporean participants, as 77 percent rated the domain with a 6 or 7 out of a 1 to 7 point scale, compared to Japanese participants at 53

percent, and Singaporean participants rated the self and that of the close other 2 significantly higher than did Japanese participants (See Figure 13). This may suggest that Singaporean high school students have more attentiveness or pressure on overall ability in school.

This is a domain that incorporates many subjects, and therefore is difficult to maintain a niche in, and that is why it is partly posited not to demonstrate the comparison process. Friendships in school may be seen as ways of navigating the academic institution and thus friends are seen as social and academic capital (Crosnoe, Cavanagh, & Elder, 2003). There is only one student who can take pride in having the highest grade point average in the grade, or perhaps the top 10, and there is only one valedictorian in a class of hundreds. But, when asked to name the most important subject to the self, Japanese participants then demonstrate the comparison process by localizing in on a niche he or she has, although this was not found true for Singaporean participants as differences in culture and school systems appear to greatly influence strategy choice on most important school subject.

6.4.2. Wealth and Money Spent Monthly - Monetary Domains

Clear evidence of the secondary reflection process was evident in both cultures on the amount of wealth one's family has and the amount of money spent monthly (See Figures 19 and 21). Japanese participants especially perceive his or her friends to be wealthier than the self and rate the self and close others significantly higher than Singaporean participants. Japanese participants rated close other 1 and 2 significantly higher on the domain of wealth and rated the self, close other 1 and close other 2 significantly higher on "Money Spent Monthly" than did Singaporean participants. Japanese participants' popularity rating on the "Wealth" domain was 13th place out of 26

domains, while Singaporean participants rated the domain in 19th place. A study on social comparisons on perceptions of and desire for material possessions in Japan and Canada found that Japanese do not report the need to gain more possessions in comparison to the Canadian participants (Ogden, & Venkat, 2001). The young adult Japanese participants had a lower desire to strive for more possessions, although this research finds that Japanese adolescents perceive his or her close others wealthier.

Adolescents appear to envy close others on monetary areas to some degree, think more highly of them, or at least perceive close others to be better off financially as that would be indirectly better for the self (e.g., Sidanius & Pratto 1999; Skafte, 1989). Research found in Hong Kong is in line with the findings in this research on Japanese and Singaporeans adolescents, as adolescents in Hong Kong frequently engaged in upward social comparisons with friends and classmates on monetary domains (Chan, 2008). Products or goods were used to communicate an ideal social self-image, and were used for social comparisons. Chan (2008) found a strong link between social comparison and peer communication with regards to consumption, and that role models of the same sex and similar age were commonly used for social comparison. Adolescents may have social pressures or factors in his or her life which encourage him or her to be or appreciate being wealthy, but that does not appear to commonly define the self or be core to the self, such as something more feasible or harder to measure as a passion for a free-time activity is.

6.4.3. A Good Personality

Significant evidence of the secondary reflection process was evident in both cultures when participants were asked to rate themselves and close others on having a good personality. Singaporean participants rated the self and both close others significantly

higher than did Japanese participants. 87 percent of Singaporean participants (3rd out of 26 domains) rated this domain with a 6 or 7 out of a 1 to 7 point scale, but only 47 percent (20th out of 26 domains) for Japanese participants. Even though this difference was found, adolescents in both culture appear to perceive both of their closest friends as having a better personality them themselves (See Figure 25). Productive speculation on this raises the questions, 1) Does an adolescent's higher independence level affect maturity, and an individual's self reports on moral and personality ratings? 2) Do countries or cultures influenced by large populations of ethnically or culturally Chinese explain the higher ratings on high personally important attributes as was found in Taiwan? (Gaertner, Sedikides, & Chang, 2008).

Adolescents do see their close friends as possessing a better personality than the self. This may be due to the idea of co-orientation or the interdependence between two friends on attitudes or perceptions (Kenny & Kashy, 1994; Zarbatany, Ghesquiere, & Mohr, 1992). It is posited that adolescents do not want to choose and label a peer as their best friend, if that person's personality is not of important interest and social value.

6.4.4. A Good Mood

Significant evidence of the secondary reflection process was evident in both cultures when participants were asked to rate themselves and close others on having a good mood. 82 percent of Singaporean participants rated the importance of having a good mood as highly self-relevant and higher than Japanese participants for the self and for close other one. 58 percent of Japanese participants rated this domain as highly self-relevant. Adolescents appear to perceive their friends as having an overall better mood, making the friend look more attractive to relationship maintenance (See Figure 26). After all, because positive moods have increased the likelihood of important survival behaviors throughout

the age of humanity, such as creativity, planning, mating, and sociality, having a friend with a good mood is beneficial and motivates relationship maintenance (Diener, Kanazawa, Suh, & Oishi, 2014). Individuals with good moods or positive personalities may live longer healthier lives (Diener & Chan, 2011).

6.4.5. A Good Friend

The most commonly chosen (rated as a 6 or 7 out of a 1 to 7 scale) highly self-relevant domain was "A Good Friend." This domain was rated most popular by Singaporean participants and 3rd in popularity for Japanese participants. 91 percent of Singaporean participants rated this domain as highly self-relevant and 78 percent of Japanese participants. A surprising finding, as this research was interested in the importance and evidence of relationship maintenance. Significant evidence of the secondary reflection process was evident in both cultures (See Figure 27). Japanese participants, especially rated both close others higher than the self, as ratings on the self were significantly lower than Singaporean ratings on the self and ratings on both close others were significantly higher than ratings on close others by Singaporean participants. Adolescents perceived their friends as being better friends than the self, which again suggests reason to support the meaningful friendship. Maintaining friendships with others of similar age during adolescents is crucial to maintaining a positive self, self-assessment, and establishing an identity in the larger social world (e.g., Berndt, 1996; Keating, 1990).

6.4.6. Attractiveness

Clear evidence of the secondary reflection process was evident in both cultures on ratings on being attractive (See Figure 31). Adolescents appear to be drawn to physically attracted individuals, and to choose attractive individuals as friends and/or perceive their

friends as better looking (e.g., Greene & Price, 1990; Rice & Dolgin, 2005; Zakin, 1983). Although strategy choice was similar, there was some difference in ratings. Japanese participants' ratings on the self and those of close other 2 were significantly lower than those of Singaporean participants. The difference in ratings between the self and close other 1 for Japanese participants was greater than that of the Singaporean participants. 62 percent of Japanese participants and 47 percent of Singaporean participants rated this domain as highly self-relevant. Japanese adolescents appear to be more modest in ratings than Singaporean participants, or possibly place more value on supporting the attractive friend over the self.

6.4.7. Ability to get a Girlfriend/Boyfriend

Clear evidence of the secondary reflection process was evident in both cultures when participants were asked how capable he or she was of getting a girlfriend/boyfriend (See Figure 32). There was no significant cultural difference on ratings of target persons. Nearly half of Japanese participants (45 percent), but only 27 percent of Singaporean participants rated this domain as highly self-relevant. Japanese participants appear to be more interested in this domain, although adolescents in both cultures perceive their friends as more capable at getting or making a boyfriend/girlfriend. This is another domain in which adolescents admire the special capabilities or possession of the close others' attractiveness and social ability.

6.5. Secondary Reflection Process Conclusions

For both cultures, the highs self-relevant rated domains, Overall Ability in School, Wealth, Money Spent Monthly, Good Personality, Good Mood, Good Friend,

Attractiveness, and Ability to get a GF/BF demonstrate the secondary reflection process as feelings of self-enhancement by supporting relationships or BIRBing with close others, appears to outweigh directly complimenting his or her self. These non-threatening domains are not as objectively measured, as one's math score, batting average, or time on the 100 meter dash, as they are personality traits or general images of the close other, and thus the secondary reflection process can be safely employed for the relationships sake. See Table 64.

Table 64. Similar Strategy Choice for Both Cultures. The Secondary Reflection Process (SRP) was Employed in These Domains.

SRP Strategy For Both Cultures
Overall Ability in School
Wealth
Money Spent Monthly
Good Personality
Good Mood
Good Friend
Attractiveness
Ability to get a GF/BF

Japanese adolescents appear to be more "modest" in overall ratings than Singaporean participants, or possibly place more value on supporting the close other over the self (e.g., Yamagishi et al, 2012). This pattern is commonly observed in the various domains where the secondary reflection process is employed. The mean difference between self and close other one for Japanese participants was greater than that of Singaporean participants' ratings in 7 of the 8 secondary reflection process strategy domains. The difference between the self and close other 1 on the domain "Money spent monthly" was similar for Japan and Singapore. The common practice of the priority of intimate relationships, the close other over the self, and the group over the self in Japan's traditional more collectivistic styled culture (Heine et al., 1999; Markus & Kitayama,

1991), and a more modest reporting of the self are posited to be a main factor in explaining why Japanese adolescents employ the secondary reflection process more frequently and in a more significant way (e.g., Furnham, Hosoe, & Tang, 2002).

Excluding the domain Overall Ability in School, the domains, Wealth, Money Spent Monthly, Good Personality, Good Mood, Good Friend, Attractiveness, and Ability to get a GF/BF, on which the self in both cultures allotted close others superiority, encompass a different impression of a high self-relevant domain when compared to those domains in which the comparison process was employed. On these domains in which the secondary reflection process was commonly employed by both cultures, adolescents appear to value a similarly aged, socially and physically attractive friend, which in turn makes the friendship desirable and more worthy of relationship maintenance. The close other is also often one who is seen as smart, better off monetarily, a good person in social aspects, and attractive (e.g., Berndt, 1996). These perceptions of close others in turn appear to strengthen the commitment to the relationship and provide the individual with unconscious positive rewards in form of a positive self-identity associated with the relationship and basic social needs being met (e.g., Buhrmester, 1990; Hamm & Faircloth, 2005; Steinberg & Morris, 2001).

These relationship and social needs being met may be highly self-relevant, but the SERM model assumes they are not enough for the individual, who must also find his or her niche or worth in comparison to a close other, to truly maintain a positive self. In the next section, those domains in which the self does not compromise for the relationship, but takes direct self-enhancement in by use of the comparison process by both cultures, are discussed.

6.6. Significant Evidence of the Comparison Process by Both Cultures.

The comparison process as explained in the SERM model assumes close others are employed as standards of comparison in evaluating the self. This comparison leads individuals to feel good by downward comparisons and at loss by upward comparisons (Isozaki, 2012; Tesser, 1988). In the following section, domains in which both Japanese and Singaporean participants designated as highly self-relevant, and the comparison process strategy was significantly applied, are discussed.

6.6.1. Important Free-Time Activity

As discussed above (See Figure 8), adolescents in Japan and Singapore appear to greatly value their highly self-relevant free-time activity (e.g., Kleiber, Larson, & Csikszentmihalyi, 1986; Shanahan & Flaherty, 2001).

6.6.2. Important Club/Team Activity

As discussed above (See Figure 10 and 11), adolescents in Japan and Singapore appear to greatly value their highly self-relevant club/team activity, especially Japanese participants.

6.6.3. Positive Self-Identity Trait

On the domain "Positive Self-Identity Trait", significant evidence of the comparison process was evident in both cultures, especially in Japan as the self and close other 1 was rated significantly more different than the Singaporean rating on self and close other 1 (See Figure 34 and 35). Participants were asked to write down the most important self-possessing self-identity trait to being positive. Adolescents in Japan and Singapore

clearly perceived their "self" as having a special positive self-identity trait, which he or she is significantly better at than his or her close friends. Early examinations of the Japanese culture in comparison to Western cultures, may not have asked the proper questions to participants in order to elicit where Japanese positivity is held, and thus argued Japanese have a critical self, not a positive self (e.g., Heine, Lehman, Markus, & Kitayama, 1999, Heine, Kitayama, & Lehman, 2001). Again, this special niche in the individuals life differentiates the self from the close others and can be fallen back upon or remembered when self-identity is threatened.

6.6.4. Contribute to Friends' Circle

Clear evidence of the comparison process was evident in both cultures on the domain "Contribute to Friends' Circle" (See Figure 36). Adolescents report perceiving their self as having a special contributing ability to their close friend group, giving the self a niche against (not with) their close others. A feeling of being part of the group and meaningful to the close group of friends appears to be extremely important to the self especially for adolescents (e.g., Palmonari, Pombeni, & Kirchler, 1990; Tarrant, MacKenzie, & Hewitt, 2006; Rubin, 2009).

While the domain "Being a Good Friend" was rated most commonly as highly self-relevant out of 26 domains, and the participants in both cultures employed the secondary reflection process supporting and maintaining their friendships on the domain, this domain of "One's Special Point in Contributing to Friend's Circle" is a domain in which the adolescents can claim superiority on an area by perceiving the self to have a special ability/niche on an area which stimulates their close other group of friends, and thus helps to maintain a positive self through the comparison process.

6.6.5. Area of Great Pride

The question in the questionnaire asked participants to list something the self takes great pride in being able to do or having. Clear evidence of the comparison process was evident in both cultures, especially in Japan as Japanese participants rated the self significantly higher than did Singaporean participants (See Figure 37). Japanese participants also rated close other 1 significantly higher than close other 2. Adolescents report having an area of high pride, in which he or she is better at than his or her close others and the individual can maintain one's self esteem with. Being proud of one's self is associated closely with self-esteem in this research, as when one's self-esteem is damaged so is one's pride (e.g., Baumeister, Campbell, Krueger, & Vohs, 2003). The domain "Being a Good Friend" may be too general as there are many ways to be a good friend, and the domain "Overall Academic Ability" is not a specific niche at an academic subject, as is one's perceived ability in math or science, thus in order not to overlook the comparison process strategy choice on areas very important to the self, on the domains "One's Special Point in Contributing to Friend's Circle," "Positive Self-Identity Trait," and "Area of Greatest Pride," the adolescent was asked to list a specific niche he or she has, allowing for one's special point to be considered and the activation of the comparison strategy.

6.6.6. Careful with Money

While the secondary reflection process was employed on the domains "Wealth" and "Money Spent Monthly", clear evidence of the comparison process was evident in both cultures for the domain "Careful with Money" (See Figure 38). Adolescents appear to imagine their friends as wealthier and spending more money than themselves, and perceive themselves as being more careful with money (e.g., Chan, 2008). Japanese adolescents in comparison to Singaporean adolescents, especially appear to perceive close others as being

more wealthy and spending more money, and perceive his or her self as being much more careful with money. Japanese adolescents perceive both close others to be significantly less careful than the self when compared to ratings on close others in Singapore. It would be interesting to find out if these perceptions of close others being wealthier and one's self being more thrifty are common to all stages in life in each culture (e.g., Burroughs & Rindfleisch, 2002).

Although participants in both cultures perceived the close other to be more wealthy, stronger social bonds may actually be made by those more equal in financial situations and who are not jealous of the close other for actually being much more wealthy, as middle-class teenagers are not able to regularly participate in certain expensive activities. Hanging around such actual wealthy close others could be threatening to the positive self. Personal experience working in high schools in Tokyo for over a decade and a half, has shown that most comments to wealthy high school students by peers during class time about being wealthy are exclusionary in word and tone. The common perception of close others being wealthier appears to be used to make the close other more attractive, and thus more motivation is created to maintain the relationship.

6.6.7. Independence (Tendency)

Singaporean participants rated the importance of being independent significantly higher than Japanese participants (See Figure 41). On "The Least Important Domain to the Positive Self", Japanese participants ranked "Being Independent" as the 3rd least important domain out of 23 domains. On "The Least Important Domain to the Positive Self", Singaporean participants ranked "Being Independent" as the 20th least important domain out of 23 domains. Also, 74 percent of Singaporean participants compared to 48 percent of Japanese participants rated "Independence" as highly self-relevant, and ratings on the

target persons were significantly higher for Singaporean participants, suggesting Singaporean adolescents value the notion of being independent more than Japanese adolescents. Perhaps adolescents in Japan, ages 16 to 18, still rely more on their parents, from lunch boxes and laundry, to daily schedules (e.g., Arnett, 2000; Chao & Tseng, 2002; Rothbaum, Pott, Azuma, Miyake, & Weisz, 2000).

6.7. Comparison Process Conclusions

Strong evidence of the comparison process for both cultures found in this dissertation on domains relevant to adolescents, supports the SERM model's assumption of a universal human need to maintain a positive self by finding a niche at something highly self-relevant (e.g., Isozaki, 2012). Adolescents in both cultures feel the need to avoid comparison and self-enhance through the comparison process. Most important domains to the adolescent's self such as free-time activities, an area of greatest pride, one's niche in a close group of friends, and a positive self-identity trait clearly demonstrated the need to maintain a positive self through the comparison process strategy. See Table 65.

Table 65. Similar Strategy Choice for Both Cultures. The Comparison Process was Employed in These Domains.

CP Strategy For Both Cultures
Important Free-Time Activity
Important Club/Team Activity
Positive Self-Identity Trait
Contribute to Friends' Circle
Area of Great Pride
Careful with Money
Independence (Tendency)

The domains, Important Free-Time Activity, Important Club/Team Activity, Positive Self-Identity Trait, Contribute to Friends' Circle, Area of Great Pride, and Independence are domains, in which the adolescent can perceive him or her self as more capable at in comparison to his or her close other. An adolescent is able to teach his or her close other about a free-time activity, or area of expertise in a club activity that the close other is less knowledgeable at. Through experience, the adolescent knows how to add his or her special contribution to the friends group and can be proud of his or her special area of great pride which the close other does not have. According to the SERM model,

individuals are posited to choose to make close friendships with others who are not threatening to his or her most important self-relevant domain or domains (e.g., Tesser, 1988). That being, even perceived ratings on target persons on the most important club/team activity are hard to actually measure as an individual who takes great pride in being a pitcher is posited not to continue maintaining a friendship with another individual who's most important self-relevant domain is pitching, yet will choose a close friend who is perhaps a catcher or 1st baseman.

While Japanese adolescents appear to be more "modest" in ratings than Singaporean participants on domains in which the secondary reflection process is employed, the mean difference between self and close other one for Japanese participants was greater than that of Singaporean participants' ratings in 5 of the 7 comparison process strategy domains discussed above, although the culture difference for "Free-Time Activity" was minimal. The two domains Singaporean participants rated the self and close other 1 with a greater difference than did Japanese participants was "Contribute to friends' circle" and "Independence", although the difference for "Contribute to friends' circle" was minimal. Japanese participants rated the self more modestly on domains in which relationship maintenance techniques were employed, and more immodest or more confidently than Singaporean participants when avoiding comparison, suggesting a more intrepid approach.

The next section examines domains rated with no significant common strategy choice for both cultures.

6.8. No Significant Common Difference in Strategy Choice

Domains rated with no significant common strategy choice for both cultures but a difference in ratings between cultures follow.

6.8.1. Positivity

Overall, Singaporean participants rated the self and close others as being significantly more positive than Japanese participants, although neither the secondary reflection process nor the comparison process was clear in either culture (See Figure 44). 10 percent more Singaporean participants than Japanese participants also rated this domain as highly self-relevant. In both cultures, adolescents appear to see themselves as positive as their close others. This domain may be related to independence in which Singaporean participants rated target persons higher than did Japanese participants. Singaporean adolescents may be more outwardly confident as more responsibilities may be allotted their way. Also, Singaporean participants most popularly chose domains associated with positivity as highly self-relevant (domains with the word "good" in it, suggesting a culture somewhat more openly valuing positivity. It may be that Singapore is a more honor-based culture than a modest-based culture (e.g., Uskul, Oyserman, & Schwarz, 2010).

6.8.2. A Good Family Background

On the domain "Good Family Background", Singaporean participants rated the self and close others significantly higher than did Japanese participants, although neither the secondary reflection process nor the comparison process was clear in either culture (See Figure 46). In both cultures, adolescents appear to see themselves as having as good of a family background as their close others. Singaporean culture may place more of an emphasis on family background, as the country is profoundly ethnically diverse (Goh, 2008).

6.9. Domains with No Significant Common Difference in Strategy Choice and in Ratings by Culture.

In both cultures, adolescents appear to see themselves as similar to their close others on the high self-relevant domains of, Most Desired Self-Identity Trait, Health, Accomplish Goals in Life, Saving Money, Good Family Relations, and Morals. Ratings on a 1 to 7 point scale were also very similar. No significant differences in target person or culture were found.

6.10. Similar Ratings on Target Persons Conclusions

Adolescents in Japan and Singapore appear to have a lot in common as the domains discussed above on similar strategy choice demonstrate, but a deeper look into the domains without a clear strategy choice is needed in order to make assumptions about how adolescents may see the self and close others on these domains. Domains in which strategy choice is not significant (NS) were rated as highly self-relevant, but are posited not to be commonly core to maintaining a positive self. See Table 66.

Table 66. No Clear Strategy Choice Evident for Both Cultures.

NS Ratings on Target Persons
Most Desired Identity Trait
Positivity
Health
Accomplish Goals in Life
Family Background
Saving Money
Good Family Relations
Morals

6.11. Domains in which Strategy Choice was Significantly Different

Japanese adolescents appear to place an overall stronger emphasis on relationship maintenance than do Singaporean adolescents, not only evident in the difference in ratings between the self and close others (Japanese rating the self more modestly), but also significantly evident in domains in which cultural differences were found, as 7 of the 8 domains rated by Singaporean participants showed no evidence of the secondary reflection process, while the almost opposite was true for Japanese participants, who rated 6 of the 8 domains with evidence of the secondary reflection process. In this section, domains in which Japanese participants and Singaporean participants designated as highly self-relevant, and the strategy choice was significantly different, are discussed.

6.11.1. Important School Subject

As discussed earlier on "Important School Subjects" in the high and low relevant sampled domains, clear evidence of the comparison and reflection process was evident for Japanese participants, but surprisingly not for Singaporean participants as the self was rated significantly lower than the Japanese participants' self.

6.11.2. Fashion

Clear evidence of the secondary reflection process was evident for Japanese participants, but the opposite strategy, the comparison process, was employed for Singaporean participants on the "Fashion" domain (See Figure 14). 43 percent of Japanese participants rated this domain as highly self-relevant, which was approximately 10 percent more than that of Singaporean participants. Japanese adolescents, who rated this domain as highly self-relevant, see his or her friends as more fashionable and attractive. Singaporean

adolescents on the other hand, have confidence in his or her fashion sense and keep this domain for direct self-enhancement by perceiving him or her self better than close others.

Fashion may be more importantly regarded in the fashion rich culture of gigantic metropolis Tokyo, and Japanese adolescents, who have been found to support the friendship over the self more often than Singaporean adolescents, desire to perceive his or her close others as "cool" and in fashion, which in turn makes the self look good. Japanese adolescents appear to perceive being surrounded by attractive friends (more fashionable, more attractive, more able to get a BF/GF, and more humorous) more important than Singaporean adolescents. This may again be because of the widely developed and older history of the fashion and media culture of Tokyo (e.g., Kawamura, 2006; Parker, Hermans, & Schaefer, 2004).

6.11.3. Humor

Clear evidence of the secondary reflection process was evident for Japanese participants, but not for Singaporean participants on the "Humor" domain (See Figure 16). 75 percent of Singaporean participants and 52 percent of Japanese participants rated this domain as highly self-relevant, although there was no significant difference in the ratings on the self and both close others for Singaporean participants, implying that Singaporean adolescents do not have a common perception of the self and close others on the domain of humor. Japanese participants on the other hand, commonly perceive friends to be significantly more humorous than the self, making for good company. Again, Japanese adolescents support the close others' abilities, attractiveness, and potential over the self, in attempts to maintain a positive self. See studies on humor in China (Yue, 2010), Japan (Davis, 2006), and Singapore (Lin & Tan, 2010).

6.11.4. Rebelliousness

Clear evidence of the secondary reflection process or reflection process strategy being employed was evident for Japanese participants, but not for Singaporean participants, although being rebellious was rated least important and least popular to the positive self out of the high self-relevant domains (See Figure 18). For Japanese participants who rated rebelliousness as a high or low self-relevant domain, the self was rated significantly lower than his or her close others, and lower than that of the Singaporean participants' self. Japanese and Singaporean adolescents' ratings of participating in rebellious acts were the lowest of any domain.

Productive speculation on friends being rated as higher than the self for Japanese adolescents may be due to the participants finding the domain of rebelliousness as "cool" in some way, but do not perceive the self as engaging in it personally. Friends who are very serious in character in Japan might be seen as less than interesting in general. This domain may be related to humor as humorous friends are not boring, and friends with some rebelliousness in them may be a source of entertainment for the Japanese adolescent self, but not for the Singaporean self.

Singaporean adolescents may be more mature, independent, or responsible, as ratings on independence by Singaporean participants were significantly higher than Japanese participants, and the domain morals was much more often chosen as highly self-relevant for Singaporeans. Those exhibiting maturity could possess less of an interest in friends' rebellious behavior. Cultures that allow young people to have a prolonged period of dependence on the parents and/or less independent role exploration, may prolong the time it takes to reach adulthood maturity to the twenties (e.g., Arnett, 2000; Rothbaum, Pott, Azuma, Miyake, & Weisz, 2000; Tanaka, 1984).

6.11.5. Cooperation

Japanese participants significantly employed the secondary reflection process, while Singaporean participants significantly employed the comparison process on the cooperation domain (See Figure 23). 78 percent of Singaporean participants and 61 percent of Japanese participants rated this domain as highly self-relevant. The self was rated significantly lower for Japanese participants in comparison to the rating on the self for Singaporean participants.

Culture in Japan places an emphasis on cooperation and teamwork to succeed, rather than the importance of individual success. This may also suggest that Japanese adolescents are more modest on ratings of the self, and notice and respect close others' cooperative attitudes (e.g., Brown, 2005; Heyman, Itakura, & Lee, 2011). Adolescents in Singapore are not as modest in ratings on the self. They appear to take more direct pride in the self's capabilities, than in compromising direct self-enhancement in order to support friendships on this domain as well.

Japanese participants report perceiving the close others as having a more rebellious nature and yet rate close others as more cooperative than the self. The explanation for this may be due to situational or contextual perceptions, as in the following examples. When the friend is a bit rebellious in certain unthreatening situations (possibly to authority figures or those in the out-group, but not to the self), the self can "sit back and watch the show" with little concern for responsibility. With regards to cooperation, the close other is seen as cooperative with the self, helping and working together with the self, which is beneficial to the self, making the relationship more meaningful. Japanese adolescents especially see friends as possessing a better overall personality, and one element of this appears to be through cooperativeness.

A clear cultural difference was found here and yet what does it mean? It is well understood that Japanese are socially cooperative for the good of the group, team, family, or business as discussed above, could it be that this domain is something so socially expected in Japan that to allot it as a core self-relevant domain or even with the comparison process strategy, would be strange to a Japanese adolescent? This domain may be tied to morals as we see a large difference in popularity ratings on morals between Japanese and Singaporean adolescents.

6.11.6. Best Friendship Characteristic

Participants were asked to list the most important friendship characteristic and then rate the self and close others on possession of that characteristic. Common listed characteristics were, helpful, positive, supportive, and accepting. Again, Japanese participants employed the secondary reflection process in maintaining a positive self as in earlier studies on ratings of self and close friends (e.g., Kobayashi & Greenwald, 2003), but not the Singaporean participants, who did not rate the self and close others significantly different (See Figure 29). Japanese participants appear to support the friendship by perceiving the friend to be a better friend than the self, which further reinforces the reason to maintain the friendship, as the benefits are satisfying. Singaporean participants appear to be more openly confident with his or her self and friendship skills, which may explain why they did not take a modest approach to this domain.

6.11.7. Special Point in School

Participants were asked to list his or her special point in school, but did not specify that it had to be related to an academic subject, so that any special point in school life was acceptable (e.g., being helpful, computer skills, making friends). Clear evidence of the

comparison process was evident in the ratings from Singaporean participants on both close others, but only with close other 2 in Japan. Surprisingly, Japanese participants rated close other 1 and 2 significantly differently, as close other 2 was rated significantly lower than close other 1 (See Figure 39). Japanese adolescents may compromise or see the best friend more realistically than the 2nd best friend on this certain domain, and therefore support the best friend's ability to be good at the self's special point in school. For ratings on the 2nd best friend by Japanese participants, clear avoidance of comparison was evident, as the 2nd best friend was considered much less able than the self at the designated special point in school. Singaporean participants demonstrated self-enhancement when compared to close others as they clearly find themselves having a niche on a certain point in school on which they perceive both close others as less capable.

6.11.8. Athletic Ability

Approximately half the participants in both cultures rated athletic ability as highly self-relevant. Japanese participants ranked this domain 14th out of 26 domains, while Singaporean participants rated this domain 23st out of 26 domains for popularity as a high self-relevant domain. Section K. in the questionnaire listed 23 domains, and asked participants to choose and list the most important domains that help the participant feel positive about his or her "self." Athletic ability was listed in 8th place out of 23 domains by Japanese participants as being most important domain to the positive self, while Singaporean participants listed this domain in 19th place out of 23 domains. On the "Athletic ability" domain, the self was rated significantly different for Japanese participants and that of Singaporean participants. Singaporean participants employed a clear comparison process strategy for athletic ability, while the average ratings on the self for Japanese participants were below that of both close others (See Figure 42).

Singaporean participants exhibit a confident perception of the self on this domain as well, as they avoid comparisons by simply assuming the self to be athletically superior. The cultural implications may be that it is less frowned upon to be forward in Singapore. On the other hand, Japanese participants exhibited a more modest approach even with a higher popularity and importance rating on this domain, which was more towards a relationship maintenance strategy than a comparison strategy (e.g., Schinke & Hanrahan, 2009).

6.12. Culture Differences Conclusions

The employment of the comparison process or lack of employment of the secondary reflection process was much more frequent among Singaporean participants than Japanese participants. What's more, on domains in which Singaporean participants did employ the secondary reflection process, and the comparison process, the mean difference between the self and close other 1 was less distinct than the Japanese participants' ratings. See Table 67.

Table 67. Differences in Strategy Choice Across Culture. The Comparison Process (CP) and the Secondary Reflection Process (SRP). Highlighted in Yellow are the Domains in which the Comparison Process or the Lack of the Secondary Reflection Process, Meaning No Significant Evidence of Either Strategy (NS) were Employed.

Differences in Strategy Choice	JP Strategy	SG Strategy
Fashion	SRP	CP
Cooperation	SRP	CP
Athletic Ability	<SRP	CP
Humor	SRP	NS
Rebelliousness	SRP	NS
Best Friendship Characteristic	SRP	NS
Special Point in School	SPR&CP	CP
Important School Subject	CP	<SRP

Examining Table 67, it is evident that overall, the secondary reflection process strategy is more commonly employed by Japanese adolescents than Singaporean adolescents. Japanese participants rated 6 out of the 8 domains in this section of cultural differences in strategy choice, with evidence of the secondary reflection process, while Singaporean participants rated only 1 of the 8 domains with marginally significant evidence of the secondary reflection process.

In Tables 36 & 37, strategy choice for the 29 main domains is displayed. For both cultures, the comparison process strategy was employed on the same 6 domains, the

secondary reflection process strategy was employed on the same 7 domains, there was no common strategy choice or significant difference in ratings on target persons for 8 domains, and on 8 of the domains there was a cultural difference in strategy choice.

6.13. General Commonalities and Dissimilarities

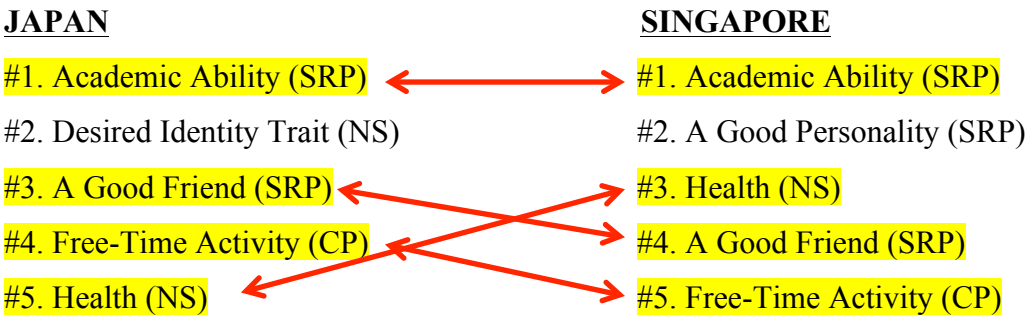
The results suggest Japanese participants employ a more intrepid approach, as they are more modest with the self on domains in which relationship maintenance techniques are employed, and more immodest than Singaporean participants when employing the comparison process. Could this self-control or self-sacrifice through modesty by Japanese adolescents create an internal unconscious stress, which explains the greater difference in in ratings on the self and close others when employing the comparison process (a form of stress relief)? The prevalence of relationship maintenance may account for the more emphasized self when employing the comparison process.

Adolescents in Singapore appear to take more direct pride in the self's capabilities, than in compromising direct self-enhancement in order to support friendships when maintaining a positive self than do Japanese adolescents (e.g., Gaertner, Sedikides, & Chang, 2008). See Appendix I & J.

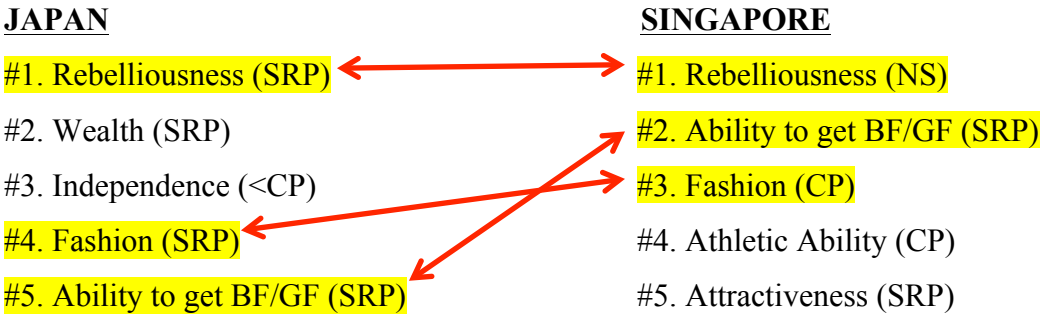
6.14. Section K: Most and Least Important Domains to Maintaining a Positive Self

Section K. in the questionnaire listed 23 domains, and asked participants to choose and list the most and least important domains that help the participant feel positive about his or her "self." The most and least popularly listed 5 domains by Japanese and Singaporean participants follow:

6.14.1. Domains Listed as Most Important to Maintaining a Positive Self



6.14.2. Domains Listed as Least Important to Maintaining a Positive Self



Very similar choices were made by both cultures when asked to list the most important domains, which help the self feel positive. The high self-relevant domains, "Academic Ability", "A Good Friend", "Health", and "Free-Time Activity" are reported to be very important to both cultures' adolescents, while an interesting difference was found in the second most commonly listed domain for Japanese participants, who chose "Desired

Identity Trait", and Singaporean participants listed "A Good Personality" as 2nd in place. "A Good Personality" is a "Desired Identity Trait" and both of these domains are ultimately related to friendships, as an individual desires to have a good personality or certain desirable social traits for the benefits of his or her close others, and the benefits that those relationships have on the self.

Based on these findings, productive speculation would assume that, deep down, adolescents in Japan and Singapore have a lot in common as to what is important to the positive self. The SERM model assumes that the comparison process strategy will be employed on the highest self-relevant domains. Looking at the strategy choice of the top most important listed domains above, the domain "Free-Time Activity" appears to be especially important to the positive self in both cultures, as individuals overwhelmingly employ the comparison process strategy here.

Although "Academic Ability" was most commonly listed as most important to helping maintain a positive self, and "Health" was in the top 5, these ratings may be more of a survival measure or base need, than a niche at something that makes an adolescent feel special, or which the adolescent lives for. Academics for an adolescent is a main duty or employment, failing to do one's main job is posited to result in surprise, criticism, and eventual social ostracization by peers and authority figures. Academic ability is important to maintaining a place in society, but is not posited to be what an adolescent is really passionate about, as is free-time activities or close friendships.

When asked to list the 5 least important domains, which help the "self" feel positive, 3 similar choices were made by both cultures: "Rebelliousness," "Fashion," and "Ability to get a BF/GF." Japanese participants also listed "Wealth" and "Independence" as least relevant to maintaining a positive self, while Singaporean participants listed "Athletic Ability" and "Attractiveness" as least relevant. Both cultures tended not to

consider “Wealth” as important to the positive self as the domain came in 2nd for Japanese participants as least important to maintaining a positive self, and 6th for Singaporean participants. A significant difference on the domain “Being Independent” was evident, as the domain was ranked much less important to maintaining a positive self by Japanese participants, while Singaporean participants ranked it as more important. As discussed in the fashion and attractiveness sections above, Singaporean adolescents appear to maintain a positive self less through attractiveness dimensions and more through independence than do Japanese adolescents.

6.15. Domains Most and Least Popularly Rated as Highly Self-Relevant

The most and least popular 6 domains rated with a 6 or 7 out of 26 domains are reviewed. Order of information below from the left: Ranking, Domain, Strategy, and percent of participants to rate the domain as highly self-relevant. The 26 domains are displayed in order of being popularly rated as highly self-relevant for each culture in Tables 36 and 37.

6.15.1. Domains Most Popularly Rated as Highly Self-Relevant

JAPAN	SINGAPORE
#1. Health (NS, 84%)	#1. A Good Friend (SRP, 91%)
#2. Important School Sub. (CP, 79%)	#2. Saving Money (NS, 88%)
#3. A Good Friend (SRP, 78%)	#3. A Good Personality (SRP, 87%)
#4. Accomplish Goals (NS, 76%)	#4. Accomplish Goals (NS, 84%)
#5. Free-Time Activity (CP, 72%)	#5. Good Family Relations (NS, 83%)
#6. Desired Identity Trait (NS, 72%)	#6. A Good Mood (SRP, 82%)

6.15.2. Domains Least Popularly Rated as Highly Self-Relevant

JAPAN	SINGAPORE
#1. Rebelliousness (SRP, 18%)	#1. Rebelliousness (NS, 6%)
#2. Contribute Friends Circle (CP, 26%)	#2. Ability to get a GF/BF (SRP, 27%)
#3. Positive Self-ID Trait (CP, 34%)	#3. Fashion (CP, 35%)
#4. Fashion (SRP, 43%)	#4. Athletic Ability (CP, 47%)
#5. Morals (NS, 44%)	#5. Attractiveness (SRP, 47%)
#6. Ability to get a GF/BF (SRP, 45%)	#6. Wealth (SRP, 49%)

6.15.3. Discussion on Most Popular Domains

Out of 26 domains, the 6 most rated domains with a 6 or 7 out of a 1 to 7 point scale were examined, in order to make interesting productive speculation on differences and similarities on domains considered to be most popular high self-relevant domains to adolescents in Japan and Singapore. Adolescents in both cultures were quick to rate being a good friend highly self-relevant. Same age friendships appear to be deeply important to adolescents in this age of transition from childhood to adulthood (Rice & Dolgin, 2005; Youniss & Smollar, 1985). Also, the importance of reaching one's goals in life is highly self-relevant to adolescents in both cultures. These goals may be academic, or free-time activity based, but a goal to an adolescent appears to be highly important by possibly representing hope for, and success in, the future.

In examining domains in which Singaporean participants most commonly selected as highly self-relevant, it appears a more important emphasis is on being good socially, having a good character, or at least appearing to be such an individual, as 4 of the 6 domains (compared to 1 of the 6 for Japanese participants) address this, "A Good Friend," "Good Personality," "Good Family Relations," and "A Good Mood." Singaporean participants appear to be more attracted to the "Good" domains hinting at a culture valuing positivity, or a culture which puts deeper emphasis into an individual's individual character, as 91 percent of Singaporean participants rated the domain "A Good Friend" as highly self-relevant, while 78 percent of Japanese participants did, 87 percent of Singaporean participants rated the domain "Good Personality" as highly self-relevant, while only 47 percent of Japanese participants did, 83 percent of Singaporean participants rated the domain "Good Family Relations" as highly self-relevant, while 54 percent of Japanese participants did, and 82 percent of Singaporean participants rated the domain "Good Mood" as highly self-relevant, while 58 percent of Japanese participants did. The

Singaporean participants come from an ethnically diverse culture, which may value the positive elements of individualism more so than the influential millennia old Japanese traditional culture. For ratings by Singaporean participants, no comparison process strategy was observed for these top 6 domains, compared to Japanese participants who employed the comparison process on the 2nd and 4th most popularly rated highly self-relevant domains. Singaporean participants exhibited clear secondary relationship maintenance strategies on 3 of the 6 most popularly rated highly self-relevant domains compared to just 1 for Japanese participants. By only examining the popularity of domains, Singaporean participants appear to commonly place an emphasis on the personality/character related domains more so than Japanese participants. Could this be due to Singaporean adolescents seeking a socially confident personality, thus being less modest than that of Japanese adolescents?

Another interesting cultural difference was found on the domain "Saving Money," which was 2nd most commonly rated as highly self-relevant by Singaporean participants. 88 percent of Singaporean participants rated "Saving Money" as highly self-relevant, while only 60 percent of Japanese participants did, implying that responsibility with money or planning for the future is more valued and/or addressed in Singapore.

Examining the domains in which Japanese participants most commonly selected as highly self-relevant, it appears a more important emphasis is on personal domains, such as being healthy, the individual's important school subject, accomplishing one's goals in life, a self-relevant free-time activity, and a self-desired identity trait. The comparison process was employed on 2 domains and the secondary reflection process was only clearly applied on one domain. Japanese adolescents surprisingly rated "Health" as highly self-relevant more than any other domain (Ranked #1 for Japan, and #11 for Singapore), followed by "Important School Subject."

The domain "A Good Personality," which was rated 2nd most important and 3rd most popular by Singaporeans, but rated as 21st most important and 20th most popular by Japanese may be related with the "Morals" domain, as 81 percent of Singaporean participants (7th out of 26 domains) rated "Morals" domain with a 6 or 7 out of a 1 to 7 point scale, but only 44 percent (22nd out of 26 domains) for Japanese participants. These were the two largest cultural differences in high self-relevant domain popularity ratings.

Japanese adolescents appear to be more practical than Singaporean adolescents when determining if a domain is highly self-relevant or not. Although Japanese culture actively encourages the importance of the close others or group over the self (e.g., Brown, 2005; Heyman, Itakura, & Lee, 2011; Nisbett, 2003), based solely on the popularity of highly self-relevant rated domains from each culture, Singaporean adolescents unconsciously report valuing the importance of a good character and its related domains more so than Japanese adolescents. This finding may be related with independence and responsibilities allotted. Further discussion on this issue is addressed in the following section.

6.15.4. Discussion on Least Popular Domains

Out of 26 domains, the 6 least rated domains with a 6 or 7 out of a 1 to 7 point scale were examined, in order to make interesting productive speculation on differences and similarities on domains considered to be least popular high self-relevant domains to adolescents in Japan and Singapore. Adolescents in both cultures were quick to rate being rebellious, as not highly self-relevant. Also, the importance of one's ability to get a boyfriend or Girlfriend and fashion were 2nd and 3rd least popularly rated highly self-relevant domain to adolescents in both cultures. This may reflect the self, distancing his or her self, from these possibly self-threatening domains, by avoiding comparisons, as the self

automatically considers the best friend more capable at these domains. In that way, the self, would not have to put itself in an uncomfortable comparison process.

Adolescents in both cultures appear not to be as focused on these domains as is often commonly suggested in movies and the media. Movies, the media, and basic teenage stereotypes often portray adolescents as having an identity crisis, desire for a boyfriend/girlfriend, worried about being attractive and fashionable, engaging in rebellious behavior, and the desire for wealth. Yet, popularity ratings on these domains fall short of such stereotypes. Many of these domains, besides the most popular domain of "Being a good friend," were rated with the lowest popularity of being highly self-relevant, but were overwhelmingly employed as a relationship maintenance strategy.

In examining domains in which Singaporean participants least commonly selected the domains as highly self-relevant, it appears there is a low emphasis on being attractive, as in, good looking, physically attractive, fashionably attractive, wealth wise attractive, and capability to be romantically attractive to others, as 5 of the 6 domains address. 62 percent of Japanese participants rated the domain "Attractiveness" as highly self-relevant, while 47 percent of Singaporean participants did.

Singaporean adolescents appear to focus on good character rather than the domains addressing attractiveness. Although the domains were not popularly rated as high self-relevant, Singaporean adolescents consider themselves more fashionable, and better at athletics, while not as good as close others at being physically attractive or able to get a GF/BF, and not as wealthy.

Surprisingly for Japanese participants, 3 of the 6 domains "Morals," "Contribute to Friends Circle," and "Positive Self-Identity Trait," which Japanese participants least commonly rated as being highly self-relevant, were much more commonly rated as highly self-relevant for Singaporean participants, especially "Morals," as addressed in the

previous section. This may be linked to a maturity levels related with independence, or on the other hand, good morals are more so common sense in Japan, and something obviously expected by every Japanese, thus not reported as important to the self (Nisbett, 2003). Japanese schools (from elementary to high schools) have special "Morals" classes teaching students how to be empathetic, supportive, not to complain about issues designated as moral (e.g., cleaning the school), and do the right thing. Also, the city halls of various cities in Tokyo send out patrol cars, which drive around through neighborhoods with large loud speakers blaring good moral conduct. Citizens in Japan are encouraged to abide by good morals, be cooperative, and be socially appropriate. Moral education by the government and school systems, let alone an adolescent's parents, seniors, and peers creates a more solid social rule system for the individual in that type of society, compared to societies, which do not place as strong of an emphasis on cooperation, morals and beneficence (e.g., Brown, 2005; Nisbett, 2003; Smith, 1966).

There were other cultural differences found, as 65 percent of Singaporean participants rated the domain "Positive Self-Identity Trait" as highly self-relevant, while only 34 percent of Japanese participants did, and 58 percent of Singaporean participants rated the domain "Contribute to Friends Circle" as highly self-relevant, while only 26 percent of Japanese participants did. Japanese participants appear to be more concerned with attractiveness dimensions, including romantic relationships and report less concerned with expected respectful family relationships between generations and good morals. Japanese participants may be more comfortable with or expect others to follow the social rules on domains related to a good character, and thus, are not as concerned with the domains as much as Singaporean adolescents, and therefore rate them lower in importance to the positive self.

6.16. Gender Similarities and Differences

Although not the focus of this dissertation, an additional gender analysis was performed on the 29 domains to debunk any significant influential gender factors. Gender was not found to be a significantly influential factor on strategy choice for domains not listed below. Males and females rated target persons similarly on most domains. The following gender differences were found on the domains of: Most Desired Self-Identity Trait (Singapore only), Ability to get a BF/GF, Sports, Careful with Money, Most Important Friendship Characteristic, and Independence. As there were a total of only 83 Japanese females to take part in the study, 80 Japanese males, 80 Japanese females, 80 Singaporean males, and 80 Singaporean females' data was randomly chosen from the larger sample and analyzed to examine for any gender differences. Again, domains not mentioned above had no significant gender difference in strategy choice when comparing or avoiding comparison with his or her close others.

6.16.1. Most Desired Self-Identity Trait (Singapore)

Male Singaporean participants perceive his or her self as significantly higher at possession of the most desired self-identity trait than do female Singaporean participants (See Figure 51). Male Singaporean participants also rated close other 2 significantly lower than close other 1 and with a lower mean than the self. Female Singaporean participants commonly rate the self lower than close others on this domain, especially for the self vs close other 2. Singaporean males appear to be more confident at this domain and employ less relationship maintenance than females.

6.16.2. Ability to get a Boyfriend/Girlfriend

Japanese and Singaporean participants employ the secondary reflection process, especially Japanese females, on "Ability to get a Boyfriend/Girlfriend" (See Figure 52). Japanese females significantly rated both close others more capable at getting a boyfriend or girlfriend than did Japanese males and Singaporean males and females.

6.16.3. Athletic Ability

Japanese and Singaporean males rated the self and rated the close other 1 significantly higher than Japanese females (See Figure 53). Singaporean males and females clearly employed the comparison process while Japanese participants did not.

6.16.4. Careful with Money

Japanese females rate "Being Careful with Money" significantly higher than males, although both sexes employ the comparison process (See Figure 54). This was not the case for Singaporean participants, as no significant difference was found between target persons and gender.

6.16.5. Most Important Friendship Characteristic

Japanese females, rated both close others significantly higher at possession of the most important friendship characteristic to the self, which was not evident for Japanese males (See Figure 55). Japanese males did rate the self significantly higher than females' self on this domain. There was no significant difference in Singaporean participants' ratings on target persons or gender.

6.16.6. Independence

Singaporean males ratings on the self on the domain "Independence" were significantly higher than Singaporean females and both Japanese sexes ratings on the self (See Figure 56). Singaporean adolescents, especially males, appear to be more confidently independent, than Japanese adolescents.

6.17. Gender Differences Conclusions

Singaporean males perceive the self to be more independent, and better at athletics than Singaporean females and Japanese males and females. Singaporean males perceive the self to possess more of the important desired self-identity trait than do Singaporean females. Singaporean females perceive the self to be more athletically capable, possess the most important friendship characteristic to the self, and more independent, than do Japanese females. Japanese females perceive the self to be more careful with money. Japanese males rate athletics, and most important friendship characteristic with higher perceptions than do Japanese females. Interestingly, ratings by males and females on the domains of fashion, and attractiveness were not significantly different.

No other significant difference in gender ratings on domains was found. Perhaps the questions in the questionnaire were not gender oriented and thus showed little signs of gender issues. If the questionnaire were to have asked about the differences of abilities between the sexes, stresses, and coping with stresses in life, there would have been more to report as is briefly discussed in the following paragraph on common adolescent gender differences on coping with stress.

Studies on adolescents in Singapore also found few major gender differences across various domains in the student's life, although emotional stresses from pressures in

academics, future concerns, and differences in reports of physical abilities were most noticeable (Isralowitz, & Ong, 1990; Yeo, Ang, Chong, & Huan, 2007). While D'Rozario and Goh, (1998) found that male students turn to physical sports and are more positive when coping with stress, females coping with stress turned to social support and reported harder experiences with stress in Australia, Germany, Singapore, and Japan. Females may have reported more stress because of a difference in self-efficacy. Greenfield (1996) found few gender differences for students in Japan and the United States on academics and attitudes towards it, as the research was not focused on coping and stress. For information on national gender issues for adults in Singapore and Japan, see the 2017 international report on gender issues by the World Economic Forum's Global Gender Gap Report (Schwab, 2017).

6.18. General Discussion

Based on the theoretical framework of the Self-Evaluation Maintenance (SEM) model (Tesser, 1988) and the newly modified Self-Evaluation and Relationship Maintenance (SERM) model (Isozaki, 2012), this dissertation found supporting evidence of the SEM model and evidence for the needed addition to the SEM model, of a relationship maintenance strategy as posited by the SERM model for Japanese and Singaporean adolescents. The results found from the analysis of the data provide a better picture of when and where the comparison process, secondary reflection process, and reflection process will be employed by adolescents, what is really important and least important to them, and provided evidence of some cultural differences.

Overall, more similarities than differences were found in this research on how adolescents in Japan and Singapore, maintain a positive self-evaluation by comparing

themselves to close others. Analysis of the data revealed that strategy choice for Singaporean and Japanese participants was very similar for 21 out of the 29 major domains investigated, providing evidence that adolescents in both cultures designate the same SERM strategy for the majority of the domains.

The results on ratings of performance on the wide range of domains, relevance dimensions, and friendship choice found in this study are in line with the SERM model. Basic comparison and reflection strategies as addressed in the SEM model between the self and close others are demonstrated in perceived performance ratings on school subjects, free-time activities and club activities. Also, the analysis of the data provided significant support for the secondary reflection process and its common employment on a wide new range of previously unexplored highly self-relevant domains. The results of this study on school subjects for Japanese participants, are in agreement with Tesser, Campbell and Smith's (1984) study on friendship choice and performance on students in the United States, where differences were found between the self and a close other on ratings of school subject performance.

In order to maximize positive outcomes, high school students associate with domains/activities he or she is capable at, make friendships with schoolmates that are non-threatening to his or her own performance dimensions, and allot relevance to practical activities in regards to performance. High school students appear not to choose poorly performing friends in order to maintain a positive self-evaluation, but instead choose similarly capable friends (e.g., Isozaki & Takahashi, 1988; Pierce, 2013; Tesser, Campbell, & Smith, 1984) from which positive comparisons and relationship maintenance strategies can be made, and the reflection processes can occur. This is in line with Festinger's (1954) friendship similarity effect.

Festinger (1954) reports that comparisons on abilities and opinions will be much less likely to be made if the other is too divergent from the self. For example, if the other person is from a different school or group, the comparison made will be less accurate and less socially relevant to one's self-evaluation, and thus, such comparisons are much less common. Festinger (1954) also writes that comparisons with others will be much less likely to be made on clearly objective domains where competence of the domain is clearly understood. Even on highly self-relevant domains, the SERM model assumes individuals will unconsciously not choose others to be close friends, who actually differ greatly in ability, as was found by Pierce, (2013) when comparing the actual grades of Japanese high school students to their two closest friends on a school subject rated as highly relevant to the self. Data in this study also provided very similar results on highly self-relevant school subjects to Pierce's earlier (2013) study.

The SERM model posits that, once a student has placed him or her self in a group of similarly minded or capable friends, his or her unconscious psychological desire to seek contentment is not over yet, as he or she must then find and maintain his or her special niche, whether academic or in his or her private life, within that group and at the same time compromise to engage in relationship maintenance in order to maintain a positive self-evaluation. Examining the results, a high school student's niche outside of academics appears to be highly self-relevant to being positive, just as an adult may not consider his or her employment to be the source of his or her self's positivity, rather areas in his or her private life (e.g., family, hobbies, volunteering) are significant to his or her maintenance of a positive self (e.g., Shanahan & Flaherty, 2001). Participants in both cultures in this study, declared being the best at, for example, baseball, video games, computer savvy, good at dance, music, or art, or knowledgeable about some popular recent topic. This gives the adolescent a unique character or niche, which influences their self-identity (e.g., Azmitia,

Syed, & Radmacher, 2013, Sherman & Cohen, 2006), as there are only a few more than a handful of school subjects, not everyone can be the best at a certain academic subject. SERM strategies employed when maintaining one's self-evaluation in comparison to others are constantly fluctuating to meet the situation sensitive event.

Although this dissertation is not focused on cultural psychology, the SERM model's dexterity in exposing cultural differences in SERM strategy choice, and ability to better explain how individuals in different cultures self-enhance, is relative. Cultural differences were evident in eight of the domains where strategy choice was not significantly similar, as Singaporean and Japanese parenting styles (e.g., Ang, & Goh, 2006; Chen, Dong, & Zhou, 1997; Chao, & Tseng, 2002; Stevenson, & Zusho, 2002; Someya, Uehara, Kadowaki, Tang, & Takahashi, 2000), educational practices (e.g., Benjamin, 1997; Ng, 2017), and cultural values (e.g., Nisbett, 2003; Nisbett, Peng, Choi, & Norenzayan, 2001; Wang, Matsuda, Ma, & Shinfuku, 2000) produced some differences how the adolescent maintains a positive self. Japan and Singapore are both countries in Asia and are posited to have more culture in common than with North American counties (e.g., Nisbett, 2003; Nisbett, Peng, Choi, & Norenzayan, 2001). Future SERM research on where the secondary reflection process is employed on the various domains discussed in this dissertation in North America will provide further interesting cultural insight and provide more evidence for the need to support and maintain relationships even on highly self-relevant domains.

With basic, unconscious, and continuous friendship choice mechanisms in play in Western cultures (e.g., Tesser, Campbell & Smith, 1984) and Asian cultures (e.g., Isozaki & Takahashi, 1988; 1993, Pierce, 2013) as found in this research, the SERM model can be utilized by cultural psychologists to uncover culture specific differences as individuals compare or avoid comparisons with close others, or choose to invest in relationships in

order to be able to bask in relationship benefits (BIRBing). A good example of a cultural difference found between adolescents in the United States and those in Japan with regard to the SERM model, is the amount of distortion in ratings between the self and close others on domains. Isozaki and Takahashi (1988; 1993) found evidence of the comparison process being implemented on most important school subject with Japanese students, but the difference in ratings between the self and close others was less than the difference between the self and close others found in the United States in Tesser, Campbell, and Smith's (1984) study, although the comparison process was significant in both cultures.

An exhaustive number of studies have provided evidence that North Americans distort their views of themselves as they appear, overly optimistic and competent, and more in control (e.g., Blaine & Crocker, 1993; Greenwald, 1980; Taylor & Brown, 1988; Zuckerman, 1979). As discussed in Chapter 3, earlier studies on self-enhancement with Japanese have not demonstrated the self-enhancing patterns which are common in the West (e.g., Heine & Lehman, 1995; Kashima & Triandis, 1986; Markus & Kitayama, 1991). Yet this lack of self-enhancement report is posited to be partly due to the Western design and content of the study. Hypothetically speaking, a healthier balance between the stereotypical East (modest, realistic, and pessimistic) and West (boastful, confident, and optimistic) is posited to be most beneficial to an individual and society. When raising the next generation of leaders and followers, parents and educators should consider the social good points found in both, the stereotypical Eastern cultures and Western cultures, in order to help influence well rounded self-evaluation maintenance techniques for their children or students.

This dissertation provides evidence for the pan-cultural psychological need to maintain one's self-evaluation as the SERM model advocates, although expressing this desire to seek a positive self is in part, culturally relevant, as social rules dictate level of

expression. An example of this difference in report or expression was evident in a study by Stevenson, Lee, and Stigler (1986), as they found that parents from the United States were much more satisfied than their Chinese and Japanese counterparts with their children's mathematics performance despite the fact that Chinese and Japanese children consistently outperformed the North American children.

If modesty is a valued personality trait among in-group members of a culture, not following the social expectations on being modest would be embarrassing for the parents. Individuals avoid breaking social rules in their culture, but seek to be rewarded when their behavior conforms to respective cultural mandates (D'Andrade, 1984). Individuals crave a cultural or in-group stamp of approval, which labels the person as "good" or "normal" (Heine & Lehman, 1996; Solomon, Greenberg & Pyszczynski, 1991). Due to these unconscious social obligations, reports of self-confidence, self-esteem, cooperation, being critical, etc. are influenced, and account for the cultural differences found.

Again, while there clearly are, what Pierce terms "skin deep" differences evident between cultures (e.g., Fiske, & Taylor, 2013, Nisbett, 2003), "the heart of the matter" suggests an innately human desire for healthy individuals to seek self-satisfaction through self-enhancement (e.g., Brown, 2010; Brown & Kobayashi, 2002; Gaertner, Sedikides, & Chang, 2008) through SERM strategies (e.g., Isozaki, 2012; Pierce, 2013). For cultural psychologists looking to map out cultural differences in individuals' social psychology, the SERM model should be considered and utilized.

There are various factors, which can influence strategy choice for an individual. Differences found in SERM strategy choice is posited not only to be due to cultural reasons, but also to size of community or social group. Individuals living in small villages in comparison to those living in large cities are posited to maintain a positive self-evaluation through different strategies. Individuals living in small communities (in the

countryside) have more reason to help his or her fellow citizens and less reason to focus on direct self promotion. Thus, the secondary reflection process is hypothetically expected to be more common or employed more heartily on a wider range of domains in those individuals living in smaller communities. It is also posited that individuals living in large cities will be more eccentric and feel less need to conform to certain traditions as diversity in thought, fashion, education, and economics is more common than that in small communities. Thus, it is posited that more diversity in SERM strategy choice will be observed in those living in large cities.

This dissertation was interested if the SERM model was applicable and could be utilized among the important psychologically developing stage of adolescent cognition. Evidence of relationship maintenance is posited to be much less common in young children, but develops in junior high school and blossoms in high school (e.g., Isozaki, 1994; 2012). Friendships between preadolescent children are much less complex than those between adolescents, especially later adolescent years, as psychological maturity nears. It is posited that, during the developmental stage of adolescence, the psychological ability to employ relationship maintenance greatly increases and helps the individual realize who he or she is in comparison to peers, especially, close others. At the same time, relationship maintenance allows the adolescent to practice or become more skillful at maintaining relationships, and to enjoy the benefits of these relationships, as the adolescent distances his or her self from parents and authority figures and depends on peers for self-evaluation maintenance. Again, the depth or complexity of the needed friendship/relationship greatly increases in meaning and importance as relationship maintenance strategies are developed.

Previous research has greatly overlooked the important need for the relationship maintenance strategy, employed when maintaining a positive self-evaluation, and thus has

left the SEM model limited in its ability to explain self-evaluation maintenance universally and in psychological developmental stages. Looking back, Tesser, Campbell, and Smith (1984) found clear evidence of the comparison and reflection processes in elementary school students, Isozaki & Takahashi (1988) found evidence of the comparison and reflection processes in elementary and junior high school students, as well as suggestive support for the secondary reflection process (Isozaki, 1994), which prompted further explanation of the psychological mechanism of relationship maintenance involved in self-evaluation maintenance. This dissertation is the first to look for and find evidence of SEM and SERM strategies in high school students. In studies on young adults for example, Kamide and Daibo, (2009) and Isozaki and Lynn (2018) found support of the SEM model in university students, and Beach and Tesser (2000) explain the need for SEM when living as a group throughout evolutionary history for children and adults. Further studies are now needed on various age groups to support the SERM predictions on developmental stages of maintaining a positive self-evaluation through the comparison, secondary reflection, and reflection processes.

SERM is constantly fluctuating by the minute and evolving through one's social life. Hypothetically, the SERM model posits strategy choice in maintaining a positive self-evaluation will significantly change over an individual's life span, putting more and more emphasis and importance on relationship maintenance in an increasingly more dynamic social life. From basic SEM strategies found in elementary school (respectively, ages 5-11), to the emergence and development of relationship maintenance in adolescents' SERM between same-sex friendships (respectively, ages 12-18), to SERM between friends and siblings in university (respectively, ages 18-22), to romantic relationships (respectively, ages 18-40), to SERM in early, mid, and late parenthood (early parenthood, child aged 1-5, mid parenthood, child aged 6-18, late parenthood, child aged 19+), to SERM in

individuals' family and friend relationships aged 40's and 50's, to SERM late in life, the employment of relationship maintenance increases as the number of diverse kinds of relationships increase (e.g., friends, siblings, boyfriend/girlfriend, colleagues, spouse, parents, relatives, neighbors, children, grandchildren) though the stages of life. The different developmental stages in an individual's social psychology, as for example reported by Bandura (1977) and Erikson (1982), will significantly influence the unconscious factors in SERM strategy choice when self-evaluating. See Appendix K for Erikson's psychological developmental stage theory. These stages are applicable to gender differences in SERM strategy as well, as discussed earlier.

In regards to SEM and relationship maintenance among young sibling relationships, relationship maintenance strategies first begin with close friendships and then are later employed between siblings, as friendships are naturally chosen and are voluntary, while sibling relationships are inevitable from birth. Also, the power structure is different between that of siblings and that of friends. Siblings in their childhoods are not able to use SEM strategies or relationship maintenance strategies as commonly, because the older sibling is usually just more capable overall. In other words, first-borns are able to greatly influence or dominate the way the sibling relationship is going to go, while friendships are built on reciprocal measures. Isozaki (2007) was unable to find the SEM processes in sibling relationships among elementary and junior high school students. Young adolescent siblings do not readily appreciate the unique abilities of each other at this age, as they do with close friends. Siblings begin to regularly employ SEM processes and relationship maintenance with each other when their unique abilities become more clear in their late adolescent or early adulthood years (e.g., Isozaki, 2016; Isozaki, & Lynn, 2018).

In order to explore any differences in how adolescents evaluate their closest and second closest friends, the current study evaluated the 2 close others separately. By examining the close others separately, only a few significant differences between close other 1 (closest friend) and 2 (second closest friend) on ratings on the following high self-relevant domains were discovered for Singapore: A Good Friend, Attractiveness, and a Positive Self-Identity Trait, as close 1 was rated significantly higher than close other 2, and for Japan, Domain of Great Pride, and Special Point in School, as close 1 was rated significantly higher than close other 2. Overall, the 2 close others chosen, were rated in similar regards, as an adolescents two best friends are posited to be very valuable. The further the other is in closeness from the self, the more distortion of the other in ratings will be evident, especially on domains of high self-relevance, as found in a study by Tesser, Campbell, & Smith (1984). Although presenting some modern day moral issues, Tesser, Campbell, & Smith (1984) asked elementary school students to choose a "distant other" in the classroom and rate his or her abilities in comparison to the self. These distant others were rated significantly lower than close others especially on self-relevant domains.

The results found from the analysis of the data provide a better understanding for researchers and educators of how adolescents, especially in Japan and Singapore, maintain a positive self through the dynamic psychological mechanisms described in the SEM model, and in addition, the secondary reflection process as explained in the complete SERM model. This dissertation now moves on to the conclusion section.

6.19. Conclusions

This research was especially looking for evidence of relationship maintenance, but it was not expecting such clear results for the need for, and importance of, relationship

maintenance over the comparison process on a wide range of previously unexplored highly self-relevant domains found in Singaporean and Japanese adolescents. Adolescents appear to be BIRBing as they are very attentive to relationships with others in their same age group. The domain Being a Good Friend was almost always, irresistibly and automatically designated as highly self-relevant, more that any other of the wide range of domains. Adolescents, ages 16 to 18, may desire adult status and adult freedoms yet have stress from not being recognized as an adult. Stress from authority figures and the desire to distance oneself from being a child may be weighty contributing factors to adolescent stress in this self-identity developing stage in life, making relationships with same age close others, also going through the same turbulence, more meaningful and essential to a positive self.

6.19.1. Research Questions Answered

This research investigated the following original research questions. The direct answers ascertained in the results follow.

1. Is there clear evidence of the SEM model's comparison and reflection processes on high and low self-relevant domains, and for the added SERM model's secondary reflection processes on high self-relevant domains in high school students, particularly in Asia, and specifically for Japanese and Singaporean adolescents?

Yes. There was clear evidence of the SEM model's comparison and reflection processes, and the SERM model's secondary reflection processes on high and low self-relevant domains in Japan and Singapore (See Figures 6, 8, 9, & Table 35). The solid evidence found is in direct line with the SERM model's predictions. For the first time,

psychologists and educators have a clearer image of when and were these strategies are applied over a new range of adolescent relevant domains. See the discussion section above.

2. Is the comparison process applied to core high self-relevant domains?

Yes, when participants from both Japan and Singapore were asked: (1) list the most highly self-important area in your life, which helps you to have a positive self-identity or makes you positive, (2) in what area of your life do you take the greatest pride in being able to do or have which makes you feel positive, and (3) Do you contribute to your friends' circle, which makes you feel positive, participants significantly employed the comparison process by avoiding comparisons. Also, when asked to list the top four domains, which help the participant to feel positive about his or her self, in the top four most popular domains selected by participants by both cultures, Free-Time Activity was listed, and target persons were rated most significantly with the comparison process. The other 3 top domains were Overall Academic Ability (a general domain, and not a niche to be proud of), A Good Friend (relationship maintenance), and Health (survival domain, and rated with no common SERM strategy as participants are posited to choose similarly healthy friends), which is relevant to adolescents as they begin noticing physical characteristics in comparison to others (e.g., Festinger, 1954; Leffert, Petersen, Kato, & Mann, 1996). The comparison process is applied to core and high self-relevant domains, which are threatening to the self. Not avoiding comparisons may leave the individual in a psychologically uncomfortable state of threat. Finding ones niche and or avoiding comparisons, is very important in maintain one's mental health (e.g., Azmitia, Syed, & Radmacher, 2013).

3. On what domains do adolescents use the secondary reflection process?

Adolescents in both cultures significantly choose the secondary reflection process strategy in maintaining a positive self on Overall Ability in School, Wealth, Attractiveness, Ability to get a GF/BF, A Good Friend, Good Mood, and A Good Personality. Japanese participants also significantly rated Fashion, Cooperation, Humor, Rebelliousness, and Special Point in School domains with the secondary reflection process strategy. It is posited that these are non-threatening high self-relevant domains and can then be allotted to friendship maintenance as discussed in Chapter 3. See the discussion section on domains utilizing the secondary reflection process.

4. Due to cultural differences, do Japanese adolescents employ the secondary reflection process more often than adolescents in Singapore?

Yes. Singaporean participants employed the secondary reflection process strategy on 7 domains, while Japanese participants employed the strategy on 13 domains with one domain being marginally significant. Also, Singaporean participants employed the comparison process strategy on 9 domains, while Japanese participants employed the strategy on only 6 domains. Japanese adolescents employ the secondary reflection process more often than adolescents in Singapore. As discussed in Chapter 3 and in the General Discussion section, Japan has more pronounced interdependent cultural values, placing a greater emphasis on the importance of close others over the self. Although, considering that Singaporean participants rated A Good Friend, Good Mood, Good Family Relations, and A Good Personality, as most 5 popularly rated high self-relevant domains, compared to Japan rating just 1 of them in the top 5 most popular self-relevant domains,

Singaporeans adolescents, do also highly value "good" friendships with "good" close others and do employ the secondary reflection process more similarly than not.

5. On what domains do Japanese and Singaporeans adolescents differ on strategy choice?

Japan and Singapore differed on strategy choice on Fashion, Cooperation, Athletic Ability, Humor, Rebelliousness, Special Point in School, Important School Subject, and Best Friendship Characteristic domains. Also, a more distinct employment of the comparison and secondary reflection process was commonly observed among Japanese adolescents on the various domains. Japanese students were more modest in their answers overall (e.g., Yamagishi et al, 2012), and rated the self and close others with more distinctive difference. Japanese may use modesty as a default strategy in order not to offend other Japanese (especially close others) (e.g., Heyman, Itakura, & Lee, 2011). See discussion section on domains of contrasting strategy choice.

6. Do adolescents in Singapore and Japan choose school related activities over private life activities or domains in maintaining a positive core self?

The importance of free-time activities and private life was rated significantly higher than school activities and school life and the comparison process was most emphasized on the domain of important free-time activities. Although, it appears that adolescents in Japan, see a highly self-relevant school subject as being more important to the self, than do Singaporean adolescents, as the comparison process was employed on important school subject for Japanese participants, but not for Singaporean participants in maintaining a positive self. As discussed in the Ratings of Performance on School Subjects section,

Singaporean adolescents have a less diverse range of school subjects to choose from and may be more aware of actual grades than Japanese adolescents, which explains the difference. This may be a weighty influential factor for Singaporean adolescents to find other areas in his or her private life to have a niche in. Although Overall Academic Ability domain was one of the top listed domains as being highly self-relevant to maintaining a positive self for Japanese and Singaporean adolescents, it was not threatening enough to the self, as the secondary reflection process was employed, suggesting that the domain is more of a duty, or do or die area in the students' lives, than a domain in which the self puts passion and excitement into, as free-time activities appear to suggest. This may be due to school activities being governed much more so by authority figures than free-time activities are. See the general discussion section for discussions on strategy choice for private and school life.

6.20. Closing

The SEM model alone, fails to take into consideration the important aspect of relationship maintenance, leaving certain cognition and behavior unexplainable. In order to explain relationship maintenance strategies in maintaining a positive self, the pan-cultural SERM model was developed, and then supported by this research. Individuals, in every culture seek positive interactions within the context of long-term, caring relationships with close others and at the same time are continuously engaging in the process of evaluating self-growth, ability, and progress in comparison to others (especially those chosen as close others). Too many comparisons lead individuals to feel negative about the self, while constantly avoiding comparisons is not being realistic, which explains why the secondary reflection process strategy is a crucial element and commonly employed among

adolescents in their struggle to maintain a positive self. The secondary reflection process appears to be employed much more than previously understood, as maintaining good friendships among peers (especially close others), appears to be central to adolescent positive self-evaluation maintenance. It is important to remember that the SERM model is made up of relationship maintenance and self-evaluation maintenance processes, which are employed unconsciously and constantly in fluctuation in order to maintain a comfortable and positive self by an individual.

As the results of this study suggest, and is posited by the SERM model, finding a stable balance between SEM and RM strategies will lead to a healthy self-satisfied mental state. Again, the comparison process would not be possible without interpersonal relationships (real or perceived) and at the same time, the secondary reflection processes in healthy individuals would not be possible without the motivation to seek self-enhancement. As evident in the results of this dissertation, in order for an adolescent to keep his or her mental health, it is important to find areas in his or her life, which he or she can succeed at, or have a niche in, such as the example of ratings on free-time activities or special contributing ability to in-group members when compared to his or her close others suggests (See Figures 8 & 36), and at the same time, maintain fruitful relationships and support relevant others, as for example, the domains overall school ability and being a good friend suggest (See Figures 13 & 28). Again, this will help buffer stress and anxiety, and fulfill one's deep biological and psychological need to belong.

The unique picture painted by the findings in this research provides the needed evidence for the SERM model's usefulness in explaining how individuals maintain a positive self on a wide range of highly self-relevant domains. The SERM model is not limited to explaining any one culture or age group, but allows researchers to examine the utilization of relationship maintenance and SEM globally on different high self-relevant

domains, and influential variables on strategy choice (e.g., most self-relevant domain, culture, self-esteem, birth order, gender, age, romance, parent vs non-parent, supporter vs high-achiever).

Follow up studies are needed to investigate how adolescents in other cultures around the world employ the two main strategies, self-evaluation maintenance and relationship maintenance, to succeed in the never-ending struggle to maintain a positive self-evaluation by comparison and reflection processes, and to promote relevant relationships.

6.21. Limitations

Although this research reached its aims at providing clear evidence for self-enhancement through self-evaluation maintenance and relationship maintenance strategies among Japanese and Singaporean adolescents, as predicted by the SERM model, there were some unavoidable limitations. First, it is recommended that high school participants from a rural area be examined, as there may be differences in strategy choice between adolescents in cities and those in more rural areas, where cultural traditions might be stronger. Secondly, cultural difference may be due to the much larger size and population of the Tokyo metropolitan area in comparison to the size of Singapore. Thirdly, the SERM model has not be employed in cultures on every continent, and thus generalizations can not be made for all adolescents, although we posit the SERM model to be globally applicable. Fourthly, a qualitative data collection approach as well as a quantitative approach may have been beneficial to explain the results in this research. It may have been beneficial to

ask participants for explanations on their perceived ratings on the various domains, through one on one interviews.

6.22. Implications

This research in part, demonstrates to educators that performance in school, relevance of school activities, and friendship choice are closely related components that have direct consequences on each other. Friendships appear to be a crucial part to an adolescent's identity and positivity. Although academics are important to an adolescent, it is the adolescent's duty, and thus, it appears not to be as commonly associated with his or her passions in life as free-time activities and meaningful same age friendships are.

As some educators have a difficult time teaching certain subjects which the adolescents do not consider as highly self-relevant, or have a low motivation to study, educators may find it helpful to take a new approach, and add popular elements of interest to the class, by associating the subject or referring to a popular free-time activity the student enjoys doing with a friend while teaching the material. In other words, teachers who know what free-time activities students are actively engaging in, can use that knowledge, for example, by designing lesson plans that make references to some of the free-time activities and therefore sparking interest in school subjects, which students often rate as boring and of low self-relevance. High school students are very impressionable, still cognitively immature, and do appreciate interesting academic lessons incorporating recent popular extracurricular topics (e.g., Tsai, Kunter, Lüdtke, Trautwein, & Ryan, 2008).

In regards to performance, educators and school counselors can try to design situations in which the performance dimensions of interest are relevant to the student's

self-definition, and that those close to the student perform at about the same level on self-relevant indexes and higher on low self-relevant indexes.

With concern to relevance in various activities, educators who understand students' most objective self-relevant indexes will ultimately have more success teaching the students. Educators can encourage the students to develop their abilities in self-relevant activities, which will lead to a greater positive effect between the three main variables of school behavior addressed by Tesser, Millar, and Moore (1988).

As for close others, teachers can be aware of friendships and respect the meaningful relationships the students have. Teachers can be ostracized by a large group of students very quickly if the teacher is unfair to a student. Students who excel at different activities, but are similar in many aspects, can be brought together, or students can be given different tasks to work on to avoid damaging comparisons. Although students will choose their own friends, educators can design seating charts to improve performance and closeness between students to reduce friction.

By understanding how the three components of school behavior affect students as described by Tesser, Millar, and Moore (1988), educators can attempt to prevent bullying or student withdrawal caused from an upwelling of negative emotions in a student, because of an inability to maintain his or her self-evaluation, by not being able to adequately manipulate his or her performance, relevance, and friendships.

This sometimes, turbulent time for adolescents is in good part overcome by the important meaningful friendships maintained. If for example, a student experiences a break in friendship with a meaningful close other, it is important that the student shift interest from the broken friendship to a high self-relevant activity or another friendship in which to move forward and continue maintaining a positive self. It is posited that adolescents who move to a new city where he or she must start new friendships, maintain a positive self not

through relationships at first, but through activities of high self-relevance, until friendships are developed. If friendships are not created after some time, it is likely that the adolescent will experience a heightened level of negativity toward activities and/or others, be more unpredictable, and in worse case, partake in rebellious behavior.

The more educators know about their students on a variety of aspects (e.g., developmental factors, performance, relevance of activities, friendship strategies, and self-esteem), the more they will succeed at guidance and teaching strategies based on the students.

Overall, classes with informed, supportive teachers are predicted to have students report more secondary reflection process strategies on domains, have SERM in appropriate balance, less bullying, higher self-esteem levels, and be less problematic, and more cohesive. This in turn will increase interest in school, ensued by higher academic performance.

Understanding how adolescents see themselves and others in the present school setting and private life is crucial for educators, parents and society. Educators are encouraged to assist students in their struggle to maintain a positive and stable self-evaluation within the social dynamics of school life and take interest in highly self-relevant free-time activities the adolescents have. This, in turn, will help provide for an exceptional academic environment with increased interest in school and better performance on tests.

Based on a variety of supporting research it is posited that birth-order (e.g., only child, first born, second born, middle born) will have a significant psychological affects on strategy choice, something that many educators may be unaware of. Implications on academic achievement, favorite school subjects, and enjoyment of school are also, posited to be related to birth-order.

The SERM model can be utilized to examine and explain any culture, age group, gender, case study vs population norm, and relationship type (e.g., friends, siblings, birth-order, boyfriend/girlfriend, colleagues, spouse, parents, relatives, neighbors, children, grandchildren). The SERM model's philosophy can be employed to make any number of area specific manuals or guidebooks. Cultural psychologists can utilize the SERM model to discover new significant differences between groups or cultures as unconscious cognition differs. Developmental psychologists can chart out a common path in SERM strategy choice throughout childhood or even the lifetime. Gender differences in relationship maintenance strategies related to age, can be explored. Marital unions may benefit by understanding the importance of finding one's niche and supporting the other at the same time, as the SERM model stresses. Businesses or human resource departments may utilize the SERM model's theory when designing a strong well working team of employees, as each individual has different strong points and needs. Relationships between parents and children of any age, especially those in business together or living together, may benefit by recognizing each other's niches and compromising on certain domains to support a well oiled relationship as is posited by the SERM model. There appears to be a bright future for this recent SERM model and much research to be done.

6.23. Future Research

Future research on the SERM model should be aimed at examining the utilization of relationship maintenance and SEM globally on different self-relevant domains, and influential variables on strategy choice (e.g., most self-relevant domain, closeness of the other, culture, self-esteem, birth order, gender, age, romance, parent vs non-parent, supporter vs leader, low-achiever vs high-achiever).

Future research on the SERM model should also have the aim to develop a SERM manual or guidebook, with for example, age, culture, gender, and mental health norms for individuals to be compared with when investigating case studies or examining individuals of any age, in order to evaluate and better understand how the individual sees him or her self and close others. In other words, mental healthcare professionals can use a SERM questionnaire to better understand certain individuals of high interest and compare the results to relevant norm responses. Common personality "types" of individuals may be explored in future research by investigating SERM strategy choice when answering questions about self-relevance, performance, and target persons, thus a section of the SERM could be added to personality tests. A human resource department could examine individuals for SERM strategy choice to better assess individuals and place individuals into a better fitting career or position.

In regards to the academic world, a school district or university, can design a case relative comprehensive model, which assigns students to categories (e.g., determined by self-esteem, self-relevant index sets, and actual grades), and could elucidate how the elementary school, junior high school, senior high school, and university students strive to maintain a balance between self-evaluation and relationship maintenance in order to stay positive. Students' ratings that are outside the normal parameters, should be given more attention, as depression, abuse, or post-traumatic stress may be discovered by follow up qualitative data, which is then used by school counselors to intervene and support the student. Also, contrasts in the application of SERM strategies between early and late stage adolescents have not been investigated. This could provide useful evidence on developmental factors educators are encouraged to consider when providing guidance and support to younger and older students.

Future research is encouraged on SERM and birth order among adolescents in various cultures, East and West, and is posited to yield interesting evidence of difference in strategy choice between only child, first born, middle born, and youngest born siblings (e.g., Isozaki, & Lynn, 2018).

Further research on how individuals in a variety of countries employ SEM and relationship maintenance to succeed in the never-ending struggle to maintain a positive self-evaluation by SERM processes is evidently necessary. Evidence of the comparison and reflection process as predicted by the original SEM model and secondary reflection processes predicted in the SERM model found in this dissertation clearly indicate the need for an expansion in the research.

Further research may be directed at answering the following questions. 1) Which SERM strategies are used on the various self-relevant domains similarly regardless of culture, and which vary by cultures around the world, and from say, SERM in remote jungle villages in Indonesia, to high school students in the US in small towns to large cities, such as New York, which cultures place the highest value on relationship maintenance? 2) How is a balance between SEM and RM strategies maintained over a lifetime? Does the employment of relationship maintenance strategy in maintaining a positive self clearly increase, as an individual ages (becomes an adult, starts full time work, gets married, has children, has grandchildren, retires)? 3) What affect do relevant variables such as self-esteem, year in school, birth order, and grade point average have on altering strategy application? 4) With age, culture, gender, grade point average, self-esteem and birth order taken into consideration, can knowledge of the strategies through a guidebook of SERM norms be applied to better counsel students? 5) What percent of those listed as closest others in high school remain listed as closest others at age 25, 45, and 65, by culture and gender? Or, Do individuals at age 25, 45, and 65 report having the

same closest others (as targets of comparison in maintaining a positive self) since high school by culture and gender? This would be interesting as friendships in different cultures may be more temporary or stage significant, while other cultures put more into the friendship making the bond very strong and keep the friendship well into late age. It is hypothesized that strong adolescent best friend friendships in countries with more focus on interdependent cultural values (e.g., Japan) last longer into one's life than do relationships in more individualistic countries (e.g., the U.S.) in general. With the exciting future research needed, as discussed above, the SERM model will become more and more applicable to understanding groups of individuals and case studies.

Final Thought:

To ensure the future of a socially healthy and prosperous nation, a great amount of interest and good counsel must be devoted to its youth. It is imperative that future adults realize his or her unique capabilities, strong points, or niches, and at the same time maintain relationships with close others in order to maintain a positive self, and thus, contribute to a mentally healthy society.

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"The noblest art is making others happy"

(P. T. Barnum)

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Appendixes

Appendix A

Three Interrelated Components of School Behavior as Described by Tesser, Campbell and Smith (1984)

Appendix B

Predicted Pathways when Maintaining One's Self-Evaluation.

Appendix C

Healthy Individual's Positive Self-Evaluation Processes

Appendix D

The Self Fluctuating Between S.E.M. and R.M.

Appendix E

Complexity of relationship maintenance cognitive self-schema between individuals of more collectivistic or individualistic environments is depicted.

Appendix F

Friendship and School Life Survey in English

Appendix G

Friendship and School Life Survey in Japanese

Appendix H

Example of a Singaporean Participant's Answers on the Questionnaire

Appendix I

Japan: Comparison Process and Secondary Reflection Process

Appendix J

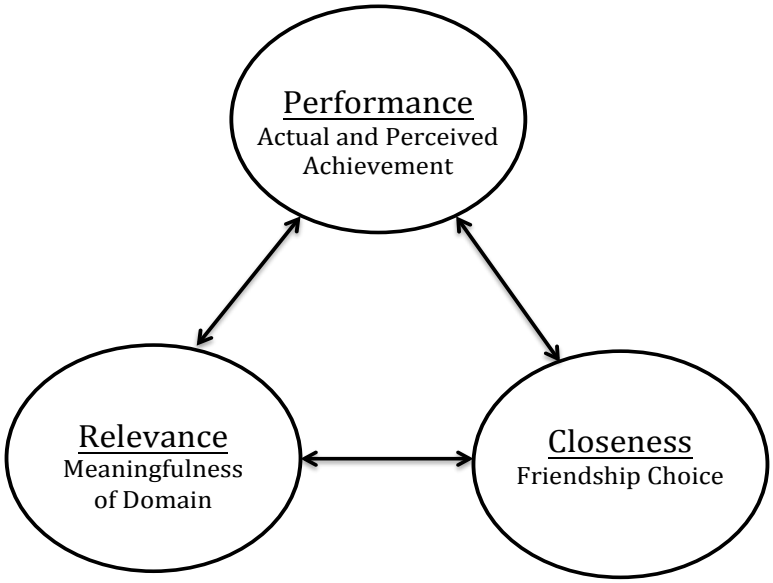
Singapore: Comparison Process and Secondary Reflection Process

Appendix K

Erikson's Stage Theory in its Final Version

Appendix A

Three Interrelated Components of School Behavior as Described by Tesser, Campbell and Smith (1984)



1. **Performance** – Actual and perceived achievement in school on different subjects and at extracurricular activities is considerably influential in shaping what students decide to pursue. An above average ability on a school subject or extracurricular activity will often lead to more attention given to that domain by the student and an elevated level of interest in it. Performance on a domain in this dissertation is defined in terms of being outperformed or outperforming a close schoolmate.

2. **Relevance** – Interest in a school subject or activity will in turn spark more effort and amount of time allotted to that domain, which in turn will raise performance on that domain. Domains of little interest to students and their friends are likely to be neglected as self-relevant domains are focused upon. Self-relevance is defined as how meaningful a target behavior is to one's self-definition.

3. **Closeness** – Friendship choice is an important component to school behavior as students often choose schoolmates as friends with whom they feel comfortable with or are not threatened by. Students feel comfortable with students of similar abilities and interests, and are threatened by students who constantly outperform them on various self-relevant activities. Closeness in this dissertation is considered the relationship between a student and his or her best and second best friend in school.

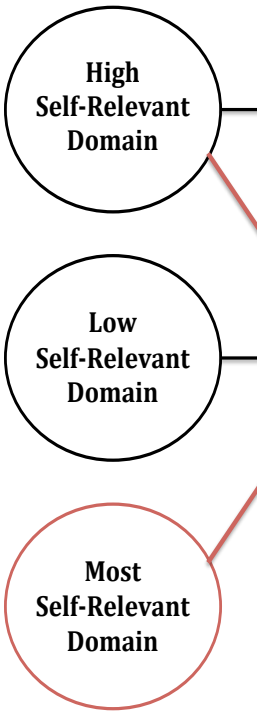
Appendix B

Predicted Pathways When Maintaining One's Self-Evaluation

SERM model is a needed extension to the SEM model as it better explains the phenomenon of self-evaluation and RM strategies especially in societies placing an emphasis on the priority of intimate relationships over the self.

Predicted Pathways when Maintaining One's Self-Evaluation.

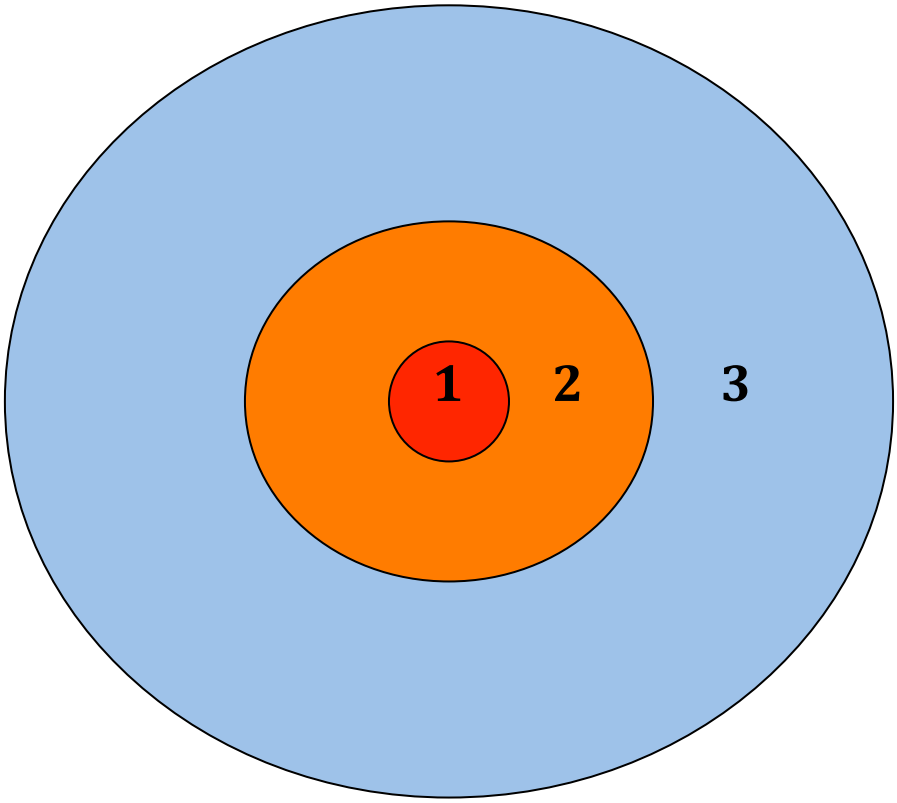
- **SEM model by Tesser (black)**
- **SERM model by Isozaki (black and red).**



Appendix C

Healthy Individual's Positive Self-Evaluation Processes

1. Core High Self-Relevant:	Comparison Process
2. High Self-Relevant:	Comparison Process or Secondary Reflection Process
3. Low Self-Relevant:	Reflection Process

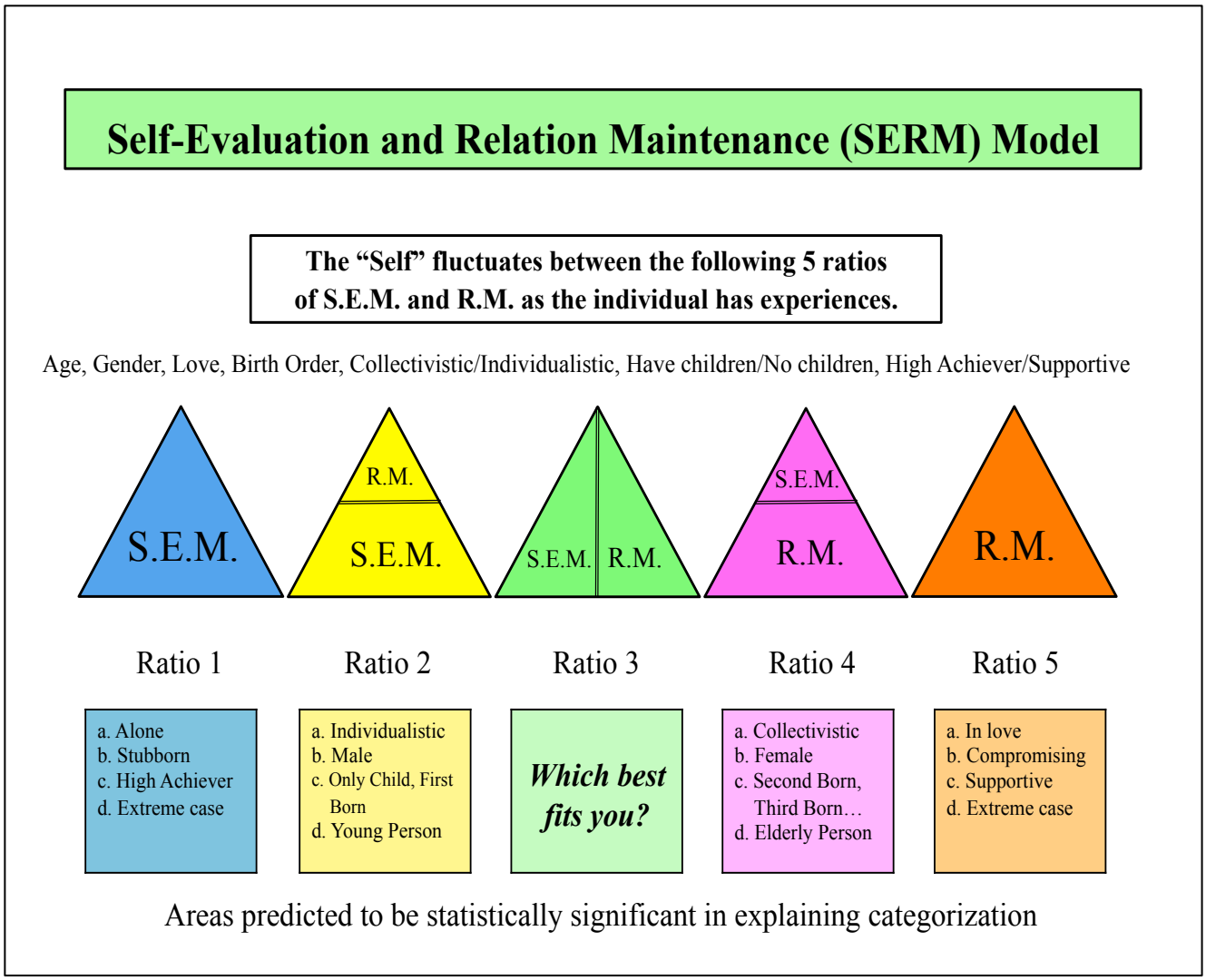


During self-evaluation maintenance in each social situation, the strategy choice (comparison, secondary reflection, or reflection process) can change depending on the level of self-threat, and relevance of the domain can also fluctuate between 1, 2, and 3 in the figure above in order to maintain a positive self.

Appendix D

The Self Fluctuating Between S.E.M. and R.M.

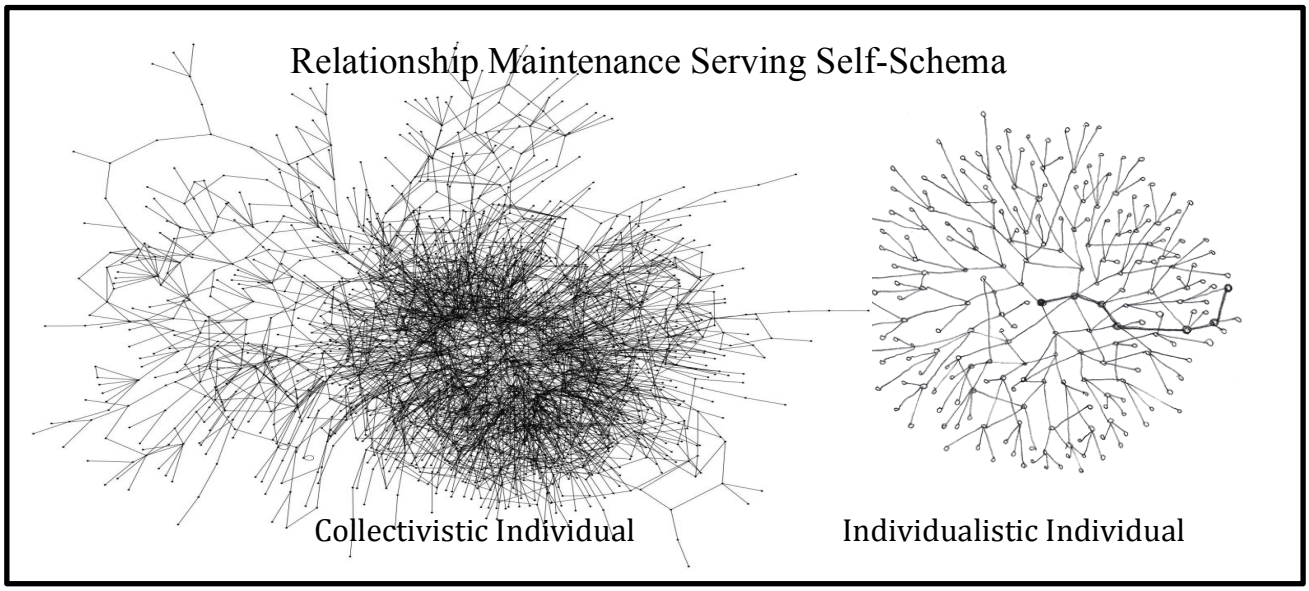
The self fluctuates between five basic ratios of SEM and RM as predicted by the SERM model in the never ending desire for a positive self.



Appendix E

Complexity of relationship maintenance cognitive self-schema between individuals of more collectivistic or individualistic environments is depicted.

Rumination on, and more attention to relationship maintenance strategies common in collectivistic societies (societies placing an emphasis on the priority of intimate relationships or close others before the self) is posited to increase the complexity of related schemata and the strategy's automatic and unconscious activation. The figure below demonstrates the complexity in self-schema for collectivistic or individualistic individuals.



Appendix F

Friendship and School Life Survey in English

Friendship and School Life Survey

Gender: M / F
Class:_____
Student Number:_____
Age:_____

Data collected from this university research project will help researchers better understand students' interests in the current school environment. There are no correct or incorrect answers. ALL data gathered from this questionnaire will be kept totally confidential. Teachers, school employees, other students, and parents will NOT see any of the information gathered from the survey. Data from all students will be combined and then analyzed together. Please answer honestly and as accurately as possible. Thank you very much in advance for giving us a small portion of your time.

There are two main kinds of questions in this survey.
Type 1: Fill-in the blanks, as you feel is most appropriate.
Type 2: Circle the number you feel is most appropriate.

Type 1 Example: What is your favorite food? Pizza .

Type 2 Example: How much do you like that food? (Not at all) 1 – 2 – 3 – 4 –5 – 6– 7 (Very much)
(Very bad) (Very good)
(No) (Yes)

LET'S START!

A. Please answer the following questions about your classmates.

1. Which of your classmates is your best friend? (Write their full name and student number)_____

2. He/She is (circle one): 1. Only child, 2. A first born child with sibling(s), 3. Second born, 4. Third born

3. Which of your classmates is your second best friend? (Write their name and student number)_____

4. He/She is (circle one): 1. Only child, 2. A first born child with sibling(s), 3. Second born, 4. Third born

B. Please answer the following questions about your birth-order and siblings.

1. Please circle the appropriate number:
   1. I am an only child.
   2. I am the first born child in my family and I have a sibling/siblings.
   3. I am the second born child.
   4. I am the third born child.
   5. I am the fourth born child.

2. How old are your siblings and how well do you get along with your siblings?
(Please label your birth-order from numbers below, then write their age, and finally circle how well you get along)

Sibling Number: 1=older brother, 3=younger brother,
2=older sister, 4=younger sister

Sibling A #_____ Age:_____ (very poor) 1 – 2 – 3 – 4 – 5 – 6 – 7 (very good)
Sibling B #_____ Age:_____ (very poor) 1 – 2 – 3 – 4 – 5 – 6 – 7 (very good)
Sibling C #_____ Age:_____ (very poor) 1 – 2 – 3 – 4 – 5 – 6 – 7 (very good)

C. Please answer the following questions. (Not at all) 1 – 2 – 3 – 4 – 5 – 6 – 7 (Very much!)

1. Do you enjoy school? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. Do you try hard in school? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. Do you enjoy your private life (outside of school)? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How important is school to you? 1 – 2 – 3 – 4 –5 – 6 – 7
5. How important is your private life to you? 1 – 2 – 3 – 4 –5 – 6 – 7
6. Are you a team-oriented person? 1 – 2 – 3 – 4 –5 – 6 – 7
7. Are you an individual-oriented person? 1 – 2 – 3 – 4 –5 – 6 – 7

Please think about YOU, your BEST friend, and SECOND BEST friend INDIVIDUALLY

D. Please answer the following questions about academic achievement.

1. How important is your academic achievement to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. What would your overall academic achievement be on a 7 point scale? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. What would your best friend's overall academic achievement be? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. What would your second best friend's overall academic achievement be? 1 – 2 – 3 – 4 – 5 – 6 – 7

E. The following section is about school subjects.

(1. Science), (2. Physics), (3. Chemistry), (4. Biology), (5. Language), (6. P.E.), (7. Computer class), (8. Social Studies), (9. Math), (10. Home Economics), (11. Music), (12. Art), (13. Other_____)

1. Which subject that you are taking now, do you feel is MOST important to you not to fail at? #_____

2. How important is that school subject to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good was your grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good was your best friend's grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. How good was your second best friend's grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7

6. Which subject that you are taking now, do you feel is LEAST important for you to succeed at? #_____

7. How important is that school subject to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
8. How good was your grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7
9. How good was your best friend's grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7
10. How good was your second best friend's grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7

F. The following section is about free-time activities.

Examples of free-time activities: (1. Play video games), (2. Emailing), (3. Playing music), (4. Listening to music), (5. Collecting something), (6. Drawing), (7. Cycling), (8. Shopping), (9. Exercise), (10. Dancing), (11. Singing), (12. Reading), (13. Watching TV), (14. Fishing), (15. Bowling), (16. Swimming), (17. Internet gaming), (18. Surfing the internet), (19. Social networks on internet), (20. Writing), (21. Dating), (22. Other_____)

1. In general, how important are your free-time activities to you? 1 – 2 – 3 – 4 – 5 – 6 – 7

2. From the selection above, which activity do you like to do the MOST in your free-time? #_____

3. How important is that free-time activity to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good are you at that most important activity? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. How good is your best friend at that most important free-time activity? 1 – 2 – 3 – 4 – 5 – 6 – 7
6. How good is your second best friend at that most important free-time activity? 1 – 2 – 3 – 4 – 5 – 6 – 7

7. Which activity do you like to do the LEAST in your free-time? #_____

8. How important is that free-time activity to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
9. How good are you at that least important free-time activity? 1 – 2 – 3 – 4 – 5 – 6 – 7
10. How good is your best friend at that least important free-time activity? 1 – 2 – 3 – 4 – 5 – 6 – 7
11. How good is second best friend at that least important free-time activity? 1 – 2 – 3 – 4 – 5 – 6 – 7

G. The following section is about self-identity traits.

Examples of different identity traits: (1. helpful), (2. cool), (3. loved), (4. a good friend), (5. fashionable), (6. fun), (7. smart), (8. cute), (9. responsible), (10. tough), (11. kind), (12. a good citizen), (13. a good student), (14. accepted), (15. rebellious), (16. funny), (17. unique), (18. sportsman), (19. leader), (20. artistic), (21. adventurous), (22. Other_____)

1. From the selection above, which self-identity trait do you want to be the MOST? #_____

2. How important is that self-identity trait to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good are you at that trait? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good is your best friend at that trait? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. How good is your second best friend at that trait? 1 – 2 – 3 – 4 – 5 – 6 – 7

6. Which self-identity trait are you NOT interested in being? #_____

7. How important is that self-identity trait to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
8. How good are you at that trait? 1 – 2 – 3 – 4 – 5 – 6 – 7
9. How good is your best friend at that trait? 1 – 2 – 3 – 4 – 5 – 6 – 7
10. How good is second best friend at that trait? 1 – 2 – 3 – 4 – 5 – 6 – 7

H. The following section is about clubs/circles/teams including Co-Curricular Activities (CCA) and those you may do outside of school.

Please consider the following clubs, circles or teams when answering the following questions:
(1. Boys Brigade), (2. Girls Brigade), (3. National Cadet Corps, Land), (4. National Police Cadet Corps), (5. St. John's Ambulance Brigade), (6. Choir), (7. Concert Band), (8. Guitar Ensemble), (9. Chinese Orchestra), (10. Language & Communication), (11. Badminton), (12. Basketball), (13. Bowling), (14. Hockey), (15. Netball), (16. Football), (17. AVA), (18. CABIN), (19. Robotics), (20. Westwood Flying Club), (21. Other:_____).

1. From the selection above, which club/circle/team is MOST important to you? # _____

2. How important is that club/circle/team to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good do you think you are at that activity)? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good do you think your best friend is at that activity)? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. How good do you think your second best friend is at that activity)? 1 – 2 – 3 – 4 – 5 – 6 – 7

6. If you had to pick one, which club/circle/team is LEAST important to you? # _____

7. How important is that club/circle/team to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
8. How good do you think you are at that activity)? 1 – 2 – 3 – 4 – 5 – 6 – 7
9. How good do you think your best friend is at that activity)? 1 – 2 – 3 – 4 – 5 – 6 – 7
10. How good do you think your second best friend is at that activity)? 1 – 2 – 3 – 4 – 5 – 6 – 7

11. Are you in a club group, circle or on a team? (circle one of the following) 1. *Yes* *2. No.*

12. How important is being on a club, circle, or team to you? 1 – 2 – 3 – 4 – 5 – 6 – 7

I. Please list the following categories in order of importance to YOU (Please write 1 for the most important category to you, 2 for the second most important category, etc…, and 5 for the least important category to you).

_____Your Overall Academic Achievement
_____Your Important School Subject
_____Your Important Free-Time Activities
_____Your Important Self-Identity Trait **(Examples: Being helpful, fashionable, fun, responsible, kind)**
_____Your Important Clubs/Circles/Team Activity

J1. Ability in School

1. How important is it for you to succeed in school? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. On average, how good do you think your ability in school is? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. On average, how good do you think your best friend's ability in school is? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. On average, how good do you think your second best friend's ability in school is? 1 – 2 – 3 – 4 – 5 – 6 – 7

J2. Positivity (being a positive person)

1. How important is being positive to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How positive are you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How positive do you consider your best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How positive do you consider your second best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J3. Fashionable (being good at being fashionable)

1. How important is being fashionable to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How fashionable are you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How fashionable is your best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How fashionable is your second best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J4. Independent (being an independent person)

1. How important is being independent to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How independent are you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How independent do you consider your best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How independent do you consider your second best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J5. Health

1. How important is being healthy to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How healthy are you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How healthy do you consider your best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How healthy do you consider your second best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J6. Wealth

1. How important is being wealthy to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. Compared to other classmates, do you think your family is wealthy? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. Compared to other classmates, do you think your best friend's family is wealthy? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. Compared to other classmates, do you think your second best friend's family is wealthy? 1 – 2 – 3 – 4 – 5 – 6 – 7

J7. A Good Friend

1. How important is being a good friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How good of a friend are you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good of a friend is your best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good of a friend is your second best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J8. Attractiveness

1. How important is being attractive to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. Do people find you attractive? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. Do people find your best friend attractive? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. Do people find your second best friend attractive? 1 – 2 – 3 – 4 – 5 – 6 – 7

J9. Cooperation (being a cooperative person)

1. How important is being cooperative to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How cooperative are you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How cooperative do you consider your best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How cooperative do you consider your second best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J10. Boyfriend / Girlfriend

1. How important to you is being able to get a boyfriend or girlfriend? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How capable are you at getting a boyfriend or girlfriend? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How capable is your best friend at getting a boyfriend or girlfriend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How capable is your second best friend at getting a boyfriend or girlfriend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J11. Rebellious (the opposite of obedient)

1. How important to you is being rebellious? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How rebellious are you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How rebellious is your best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How rebellious is your second best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J12. Goals in Life (your future dream)

1. How important to you is it to accomplish your goals in life? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How able are you at accomplishing your goals in life? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How able is your best friend at accomplishing his/her goals in life? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How able is your second best friend at accomplishing his/her goals in life? 1 – 2 – 3 – 4 – 5 – 6 – 7

J13. Good Mood

1. How important to you is having a good mood? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How often are you in a good mood? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How often is your best friend in a good mood? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How often is your second best friend in a good mood? 1 – 2 – 3 – 4 – 5 – 6 – 7

J14. Humor

1. How important is humor to you with your best friends? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How good do you think your humor is? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good do you think your best friend's humor is? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good do you think your second best friend's humor is? 1 – 2 – 3 – 4 – 5 – 6 – 7

J15. Family Background

1. How important to you is having a good family background? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How good do you think your family background is? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good do you think your best friend's family background is? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good do you think your second best friend's family background is? 1 – 2 – 3 – 4 – 5 – 6 – 7

J16. Personality

1. How important to you is having a good personality? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How good do you think your personality is? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good do you think your best friend's personality is? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good do you think your second best friend's personality is? 1 – 2 – 3 – 4 – 5 – 6 – 7

J17. Saving Money

1. How important do you think it is to save money for the future? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How good are you at saving the money you have? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good is your best friend at saving the money he/she has? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good is your second best friend at saving the money he/she has? 1 – 2 – 3 – 4 – 5 – 6 – 7

18. Good Family Relations

1. How important to you is keeping good relationships with your family members? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How good of relationships do you keep with your family members? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good of relationships does your best friend keep with his/her family members? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good of relationships does your second best friend keep with his/her family members? 1 – 2 – 3 – 4 – 5 – 6 – 7

J19. Morals (being a moral person)

1. How important is being moral to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How moral are you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How moral do you consider your best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How moral do you consider your second best friend? 1 – 2 – 3 – 4 – 5 – 6 – 7

J20. Sports

1. How important are sports to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How good are you at sports? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good do you consider your best friend at sports? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good do you consider your second best friend at sports? 1 – 2 – 3 – 4 – 5 – 6 – 7

K. Please choose the 4 MOST important categories to you that help you to feel positive about your "self". Then choose the 3 LEAST important categories to you. Please write their number on the designated lines.

CATEGORIES

1. MOST Important #_____
2. Second Most Important #_____
3. Third Most Important #_____
4. Fourth Most Important #_____

5. Least Important #_____
6. Second Least Important #_____
7. Third Least Important #_____

1. Academic Achievement
2. Most important Subject
3. Free-Time Activity
4. Club/Team Activity
5. Fashion
6. Self-Identity Trait
7. Attractiveness
8. Health
9. Sports
10. Saving Money
11. A Good Friend
12. Humor
13. Personality
14. Rebelliousness
15. Goals
16. Boyfriend/Girlfriend
17. Independent
18. Morals
19. Family Background
20. Positivity
21. Cooperation
22. Mood
23. Wealth

L. Describe/define yourself in 5 nouns and/or adjectives on the "A-E" lines below:
EXAMPLE: A. student B. soccer player C. friendly D. strong E. artist

1. **A._____ B._____ C._____ D._____ E._____**

2. How capable are you at Letter A? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your best friend at Letter A? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your second best friend at Letter A? 1 – 2 – 3 – 4 – 5 – 6 – 7

3. How capable are you at Letter B? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your best friend at Letter B? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your second best friend at Letter B? 1 – 2 – 3 – 4 – 5 – 6 – 7

4. How capable are you at Letter C? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your best friend at Letter C? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your second best friend at Letter C? 1 – 2 – 3 – 4 – 5 – 6 – 7

5. How capable are you at Letter D? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your best friend at Letter D? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your second best friend at Letter D? 1 – 2 – 3 – 4 – 5 – 6 – 7

6. How capable are you at Letter E? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your best friend at Letter E? 1 – 2 – 3 – 4 – 5 – 6 – 7
   How capable is your second best friend at Letter E? 1 – 2 – 3 – 4 – 5 – 6 – 7

7. **Now, please write the "alphabet letters" of the 5 describing/defining words above in order of greatest importance to you below (rank order). #1 is the MOST important to you, and #5 is the least important of them to you.**

(Most important) #1_____ #2_____ #3_____ #4_____ #5_____ (Least important)

M. Spending Money

1. How important is it to you to buy the latest coolest product? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. How confident are you at winning a prize if you were to play a game at a carnival? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. If you got $100 and you went to a carnival, would you use all the money on rides and trying to win prizes?
   (No way!) 1 – 2 – 3 – 4 – 5 – 6 – 7 (Yes!)
4. Do you check the price of a product at different retailers before you buy it? 1 – 2 – 3 – 4 – 5 – 6 – 7

5. Do your parents or grandparents buy things for you if you ask them for it? 1 – 2 – 3 – 4 – 5 – 6 – 7
6. If you found something you liked in a clothing store, would you wait until it went on sale the next week to buy it? 1 – 2 – 3 – 4 – 5 – 6 – 7
7. In total, about how much allowance from your family and/or money from a job do you get each month? $_____
8. How much money do you spend shopping each month? (None) 1 – 2 – 3 – 4 – 5 – 6 – 7 (All my money!)
9. How much money do you think your best friend spends shopping each month? 1 – 2 – 3 – 4 – 5 – 6 – 7
10. How much money do you think your second best friend spends shopping each month? 1 – 2 – 3 – 4 – 5 – 6 – 7

11. What do you usually buy with your spending money? THE MOST is #_____
Please write the number on the line from the choices below. 2nd MOST is #_____
3rd MOST is #_____

(1. Clothing), (2. Restaurants), (3. Games), (4. Music), (5. Books/Comics), (6. Sports), (7. pets), (8. Sweets), (9. Dating), (10. School supplies), (11. Smart Phone), (12. Concert), (13. Other_____)

12. Are you careful on how and when you spend your money? (No) 1 – 2 – 3 – 4 – 5 – 6 – 7 (Yes)
13. Is your best friend careful on how and when he/she spends their money? 1 – 2 – 3 – 4 – 5 – 6 – 7
14. Is your second best friend careful on how and when he/she spends their money? 1 – 2 – 3 – 4 – 5 – 6 – 7
15. How generous are you to your friends and family with your own money? 1 – 2 – 3 – 4 – 5 – 6 – 7

N. Please answer the following questions about your best friends in general.

Compared to your closest classmates, what is the most highly self-important area, which helps you to have a positive self-identity or which makes you feel positive or proud of yourself? (It can be anything, big or small!!)

(EXAMPLE: Being good at _____ makes me feel positive.
Being _____ makes me feel good about myself.

1. _____
(Please write your answer on the line above.)

2. How important is your ability at that to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. Compared to your closest classmates, how good are you at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. Compared to you, how good is your best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. Compared to you, how good is your second best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7

O. Please answer the following questions about your closest group of classmates.

Within your closest group of classmates, how do you contribute to the group of friends, which makes you feel positive? (EXAMPLES--- "I am: funny, toughest, supportive, best looking, kindest, most normal, rich, smartest, craziest, nicest, best with_____, best at_____."

1. I am _____.
(Please write your answer on the line above.)

2. How important is your ability at that trait or area to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. Compared to your closest classmates, how good are you at that special point? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. Compared to you, how good is your best friend at that special point? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. Compared to you, how good is your second best friend at that special point? 1 – 2 – 3 – 4 – 5 – 6 – 7

P. What other area in your life is very important to you and you take the greatest pride in being able to do or have. It should me something important to your "self" in staying positive. Please think deeply.

(SOME EXAMPLES: I take pride in __my great family__. OR, I take pride in __being a good cook__.
OR, I take pride in __being a clean person__ . OR, I take pride in __getting what I want__.)

1. I take pride in _____.
2. How good/able are you at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good/able is your best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good/able is your second best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7

Q. Is your best friend(s) BETTER than you at something that you take a lot of pride in, or is a very important to your "self"? (EXAMPLE: I take pride in __playing musical instrument__.)

1. I take pride in _____, but my best friend(s) is better than I at it.

2. How good/able are you at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good/able is your best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good/able is your second best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7

R. Please answer the following questions about family life.

1. How many meals a week do you eat with your parents? _____*times*
2. How many hours a week do you converse with your parents? _____ *hours*

3. How good is your relationship with your mother? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good is your relationship with your father? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. Is there friction between you and parents? 1 – 2 – 3 – 4 – 5 – 6 – 7
6. Is there friction between you and siblings? 1 – 2 – 3 – 4 – 5 – 6 – 7

S. Please answer the following questions about school.

1. Do you like your teacher? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. Does your teacher care for you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. Can you talk to your teacher about your problems? 1 – 2 – 3 – 4 – 5 – 6 – 7

T. Best Friendship Characteristic

1. What is the most important friendship characteristic to you that a friend could have?_____
(Please write it on the line above)
2. How much of that characteristic do you have? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How much of that characteristic does your best friend have? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How much of that characteristic does your second best friend have? 1 – 2 – 3 – 4 – 5 – 6 – 7

U. My special point in school. What are you good at doing in school? (EXAMPLES: school subjects, music, art, making friends, getting good grades, making trouble, etc…)

1. I am good at_____.
2. How capable are you at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How capable is your best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How capable is your second best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. How good/able is your best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7
6. How good/able is your second best friend at that? 1 – 2 – 3 – 4 – 5 – 6 – 7

V. Please answer the following questions.

1. Do you do your homework? 1 – 2 – 3 – 4 – 5 – 6 – 7
2. Are classmates treated equally in your school? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How much order is kept in your classroom? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. Do you feel stress at school? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. Do you feel there is bullying in your school? 1 – 2 – 3 – 4 – 5 – 6 – 7
6. Are you a trouble maker? 1 – 2 – 3 – 4 – 5 – 6 – 7

W. Short Story: A university school student found a wallet on the ground in the school cafeteria. The student looked around and saw that no one was in the building. The student took out the money from the wallet, put down the empty wallet where it was originally, and then walked home. The student did not get caught.

1. If you were the university student, would you've done the same thing? (No) 1 - 2 - 3 - 4 - 5 - 6 - 7 (Yes)
2. If your best friend were the university student, would he or she have done the same thing?
1 - 2 - 3 - 4 - 5 - 6 - 7
3. If your second best friend were the university student, would he or she have done the same thing?
1 - 2 - 3 - 4 - 5 - 6 - 7

Appendix G

Friendship and School Life Survey in Japanese

学校生活に関する調査

性： 男、 女
学年クラス： _____
出席番号： _____
年齢: _____

Friendship and School Life Survey

この調査は、学校生活についての意識を調べるためのものです。調査にご協力ありがとうございます。答えはあくまで全体の傾向を探るもので特定の正解はありませんので気軽にお答えください。またこの調査の結果得られたデータは、統計的に処理され個人が特定されることはありません。本研究のみに用いられ、個人情報が外部に出ることは一切ありません。以下の項目に思ったまま、ありのままお答えください。

このアンケートは二種類の質問があります。

***1**.空欄にあなたの思ったままを記載してください。*
例:あなたの好きな食べ物は何ですか? 「ピザ」が好きな場合 例: ピザ .

***2**.あなたの気持ちに最も当てはまる数字に丸印をつけてください。*

例:その食べ物はどのくらい好きですか? (全くそうではない) 1 – 2 – 3 – 4 –5 – ⑥– 7 (全くそうである)

[かなり好きだと思う場合（⑥に○をつける)]

A. 以下の質問に答えてください。最も当てはまる数字に丸印をつけてください。

1. あなたの同じ学年で、一番の親友は誰ですか？ 名前_____組_____番号_____
組と出席番号で答えてください。出席番号がわからなければフルネームで答えてください。

2. 彼／彼女は、 （1一人っ子 2長男/長女 3中間子 4末っ子）である。

3. あなたの同じ学年で、二番目の親友は誰ですか？ 名前_____組_____番号_____
組と出席番号で答えてください。出席番号がわからなければフルネームで答えてください。

4. 彼／彼女は、 （1一人っ子 2長男/長女 3中間子 4末っ子）である。

B. 以下の質問に答えてください。

1. あなたを除いて，あなたは何人きょうだいですか？ _____人

2. あなたはきょうだいの何番目に生まれましたか? 丸をつけてください。 一番目、 二番目、 三番目、 四番目

3. あなたのきょうだいは何歳ですか? またどのくらい仲が良いですか？
当てはまるきょうだいの番号と年齢を記載し、丸をつけてください。
1＝兄 2＝姉 3＝弟 4＝妹

きょうだい A _____年齢:_____（とてもよくない） 1 – 2 – 3 – 4 – 5 – 6 – 7 （とてもよい）
きょうだい B _____年齢:_____（とてもよくない） 1 – 2 – 3 – 4 – 5 – 6 – 7 （とてもよい）
きょうだい C _____年齢:_____（とてもよくない） 1 – 2 – 3 – 4 – 5 – 6 – 7 （とてもよい）

C. 以下の質問に答えて下さい。例：どの位好きですか。
（全く好きでない）1 – 2 – 3 – 4 – 5 – 6 – 7（大変好き）

1. 学校生活を楽しんでいますか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. 勉強を頑張っていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 私的生活を楽しんでいますか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 学校生活は大切ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
5. 私的生活は大切ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
6. 集団生活を重んじていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
7. 私的生活を重んじていますか。1 – 2 – 3 – 4 – 5 – 6 – 7

あなたと一番の親友、二番目の親友について別々におたずねします。

D. 学業成績について答えて下さい。

1. 成績は重要ですか。 1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたにとって 7 段階評価では、あなたの成績はどうなりますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 7 段階評価では、一番の親友の成績はどのようですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 7 段階評価では、二番目の親友の成績はどのようですか。1 – 2 – 3 – 4 – 5 – 6 – 7

E. 科目についてお聞きします。
1.科学　2. 物理　3.化学　4.生物　5.語学　6.体育　7.コンピューター　8.社会
9.数学　10.家庭科　11.音楽　12.美術　13.その他（＿＿＿＿）

1. 今とっている科目の中で、どの科目があなたにとって最も重要だと思いますか。　＃＿＿＿.
2. その科目は、どの位重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. その科目の成績はどうでしたか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 一番の親友の成績はどうでしたか。1 – 2 – 3 – 4 – 5 – 6 – 7
5. 二番目の親友の成績はどうでしたか。1 – 2 – 3 – 4 – 5 – 6 – 7

6. 今とっている科目の中で、どの科目が一番重要でないと思いますか。　＃＿＿＿.
7. その科目は、どの位重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
8. その科目の成績はどうでしたか。1 – 2 – 3 – 4 – 5 – 6 – 7
9. 一番の親友の成績はどうでしたか。1 – 2 – 3 – 4 – 5 – 6 – 7
10. 二番目の親友の成績はどうでしたか。1 – 2 – 3 – 4 – 5 – 6 – 7

F. 次の質問は余暇の過ごし方です。
1.ビデオゲーム　2. E メールをする 3.音楽演奏　4.音楽鑑賞　5.コレクション
6.絵を描く　7.サイクリング　8.買い物　9.エクササイズ　10.ダンス　11.歌　12.読書
13.テレビ　14.釣り　15.ボーリング　16.水泳　17.インターネットゲーム　18.インターネットを楽しむ
19.フェイスブック等のソーシャルインターネットワークを楽しむ　20.執筆
21.デート　22.その他（＿＿＿＿）

1. 余暇は重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. どのような余暇の過ごし方が一番好きですか。　＃＿＿＿.
3. その余暇の過ごし方は、どの位重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. もっとも重要と思う余暇を過ごしたときの、気分はどうですか。1 – 2 – 3 – 4 – 5 – 6 – 7
5. その余暇中の、一番の親友の気分はどうですか。1 – 2 – 3 – 4 – 5 – 6 – 7
6. その余暇中の、二番目の親友の気分はどうですか。1 – 2 – 3 – 4 – 5 – 6 – 7

7. もっとも重要だと思わない余暇の使い方はなんですか。　＃＿＿＿＿.
8. その余暇の過ごし方は、どの位重要ですか。1－2－3－4－5－6－7
9. もっとも重要だと思わない余暇を過ごしたときの、気分はどうですか。1－2－3－4－5－6－7
10. その余暇中の、一番の親友の気分はどうですか。1－2－3－4－5－6－7
11. その余暇中の、二番目の親友の気分はどうですか。1－2－3－4－5－6－7

G. 人物についての質問です。
1.親切　2.冷静　3.人に好かれる　4.友達として最適な　5.おしゃれ　6.楽しい 7.頭がいい
8.かわいい　9.責任感が強い　10.丈夫　11.親切　12.善良な市民　13.良い生徒
14.人に流され易い　15.格好をつける　16.面白い　17.変わっている　18.スポーツマン
19.リーダー　20.芸術家タイプ　21.冒険好き　22.その他（＿＿＿＿＿）

1. どのような人柄になりたいですか。　＃＿＿＿＿.
2. その人柄はあなたにとってどの位重要ですか。1－2－3－4－5－6－7
3. どの位その気質を持っていますか。1－2－3－4－5－6－7
4. 一番の親友はどの位その気質を持っていますか。1－2－3－4－5－6－7
5. 二番目の親友はどの位その気質を持っていますか。1－2－3－4－5－6－7

6. どんな人柄が重要でないと思いますか。　＃＿＿＿＿.
7. その人柄はあなたにとってどの位重要でないと思いますか。1－2－3－4－5－6－7
8. その気質をどの位持っていますか。1－2－3－4－5－6－7
9. 一番の親友はどの位その気質を持っていますか。1－2－3－4－5－6－7
10. 二番目の親友はどの位その気質を持っていますか。1－2－3－4－5－6－7

H. クラブ・サークルについての資問です。
1.サッカー　2.野球　3.陸上　4.水泳　5.バスケットボール　6.フットボール　7.テニス
8.バドミントン　9.ダンス　10.演劇　11.スキー　12.チェス　13.科学　14.コーラス
15.重量挙げ　16.柔道　17.剣道　18.美術　19.音楽　20.ゴルフ　21.ビデオゲーム　22.数学
23.その他（＿＿＿＿＿）

1. どのクラブ・サークル活動がもっとも重要ですか。　＃＿＿＿＿.
2. その活動はあなたにとってどの位重要ですか。1－2－3－4－5－6－7
3. その活動をしている間どのような気分ですか。1－2－3－4－5－6－7
4. 一番の親友はその活動をしている間どのような気分ですか。1－2－3－4－5－6－7
5. 二番目の親友はその活動をしている間どのような気分ですか。1－2－3－4－5－6－7

6. どのクラブ・サークル活動が重要でないと思いますか。　＃＿＿＿＿.
7. その活動はどの位あなたにとって重要でないと思いますか。1－2－3－4－5－6－7
8. その活動をしている間どのような気分ですか。1－2－3－4－5－6－7
9. 一番の親友にとってその活動をしている間どのような気分ですか。1－2－3－4－5－6－7
10. 二番目の親友にとってその活動をしている間どのような気分ですか。1－2－3－4－5－6－7

11. グループ、サークル、チームに属していますか（どちらかに○）　1.はい　2.いいえ
12. グループ、サークル、チームにいることは重要ですか。1－2－3－4－5－6－7

I. 以下について,1 (最も重要) から 5 (最も重要でない) までの数字でランク(順位) をつけて下さい。
＿＿＿＿＿成績
＿＿＿＿＿最重要科目
＿＿＿＿＿余暇
＿＿＿＿＿人柄
＿＿＿＿＿クラブ活動

J.1. 学習能力について
1. 学校で成功することはどの位重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたは学校でどの位優れていると思いますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友は学校でどの位優れていると思いますか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友は学校でどの位優れていると思いますか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.2.積極性について
1. 積極的であることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位積極的ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位積極的ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位積極的ですかすか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.3.ファション
1. 格好(かっこ)いいことは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位格好いいですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位格好いいですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位格好いいですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.4.独立心に富んでいる
1. 独立心に富んでいることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位独立心に富んでいますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友は独立心にどの位富んでいますか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位独立心に富んでいますか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.5.健康
1. 健康は重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位健康ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位健康ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位健康ですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.6.裕福
1. 金持ちであることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたの家族はどの位金持ちですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友の家族はどの位金持ちですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友の家族はどの位金持ちですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.7.友達
1. 友達でいることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位良い友達ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位良い友達ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位良い友達ですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.8.魅力
1. 魅力的であることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位魅力的であると思われていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位魅力的であると思われていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位魅力的であると思われていますか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.9.協調的
1. 協調的であることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位協調的ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位協調的ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位協調的ですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.10.ボーイフレンド・ガールフレンドについて
1. ボーイフレンドまたはガールフレンドを持つことは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはボーイフレンドまたはガールフレンドを持つことができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はボーイフレンドまたはガールフレンドを持つことができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はボーイフレンドまたはガールフレンドを持つことができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.11.格好（かっこ）つけ
1. 格好（かっこ）をつけることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位格好をつけていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位格好をつけていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位格好をつけていますか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.12.人生の目標（将来の夢）
1. 人生の目標を達成することは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたは人生の目標を達成することができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友は人生の目標を達成することができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友は人生の目標を達成することができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.13.機嫌（きげん）が良いこと
1. 機嫌が良いことは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位機嫌が良いですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位機嫌が良いですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位機嫌が良いですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.14.ユーモアのセンス
1. ユーモアのセンスは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位ユーモアのセンスがありますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位ユーモアのセンスがありますか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位ユーモアのセンスがありますか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.15.家庭環境
1. 良い家庭環境であることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位良い家庭環境に生まれましたか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位良い家庭環境に生まれましたか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位良い家庭環境に生まれましたか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.16.人物
1. 立派な人となりになることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたの人となりはどの位立派ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友の人となりはどの位立派ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友の人となりはどの位立派ですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.17.貯蓄
1. 将来のために貯蓄することは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位貯蓄することができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位貯蓄することができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位貯蓄することができそうですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.18.家族関係
1. 家族はどの位重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたは家族との関係はどの位良好ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友は家族との関係はどの位良好ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友は家族との関係はどの位良好ですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.19.道徳観（道徳的であること）
1. 道徳的であることは重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはどの位道徳的ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位道徳的ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位道徳的ですか。1 – 2 – 3 – 4 – 5 – 6 – 7

J.20.スポーツ
1. スポーツは重要だと思いますか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. あなたはスポーツがどの位得意ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友はどの位スポーツが得意ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友はどの位スポーツが得意ですか。1 – 2 – 3 – 4 – 5 – 6 – 7

K. 自分を良く評価するのに重要と思われるものを 4 つ選んで下さい。
また重要と思われないものを 3 つ選んで下さい。

1. 最も重要と思えるもの　＃_____
2. 二番目に重要と思えるもの　＃_____
3. 三番目に重要と思えるもの　＃_____
4. 四番目に重要と思えるもの　＃_____
5. 最も重要でないと思えるもの　＃_____
6. 二番目に重要でないと思えるもの　＃_____
7. 三番目に重要でないと思えるもの　＃_____

1.学業成績　2.最重要科目　3.余暇　4.クラブ活動　5.ファッション　6.人柄（人物）　7.魅力　8.健康　9.スポーツ　10.貯蓄　11.友達　12.ユーモア　13.人となり　14.格好つけ　15.人生の目標　16.ボーイ(ガール)フレンド　17.独立心　18.道徳観　19.家庭環境　20.積極性　21.協調性　22. 機嫌が良いこと　23.富

L. （AからEまでの 5 つの名詞または形容詞で，自分を説明して下さい。）
例．生徒　サッカー選手　親しみ易い　強い　芸術家　など

1. A._____ B._____ C._____ D._____ E._____

2. **A**について　：あなたはどの位そうですか。1－2－3－4－5－6－7
　　：一番の親友はどの位そうですか。1－2－3－4－5－6－7
　　：二番目の親友はどの位そうですか。1－2－3－4－5－6－7

3. **B**について　：あなたはどの位そうですか。1－2－3－4－5－6－7
　　：一番の親友はどの位そうですか。1－2－3－4－5－6－7
　　：二番目の親友はどの位そうですか。1－2－3－4－5－6－7

4. **C**について　：あなたはどの位そうですか。1－2－3－4－5－6－7
　　：一番の親友はどの位そうですか。1－2－3－4－5－6－7
　　：二番目の親友はどの位そうですか。1－2－3－4－5－6－7

5. **D**について　：あなたはどの位そうですか。1－2－3－4－5－6－7
　　：一番の親友はどの位そうですか。1－2－3－4－5－6－7
　　：二番目の親友はどの位そうですか。1－2－3－4－5－6－7

6. **E**について　：あなたはどの位そうですか。1－2－3－4－5－6－7
　　：一番の親友はどの位そうですか。1－2－3－4－5－6－7
　　：二番目の親友はどの位そうですか。1－2－3－4－5－6－7

7. それではあなたが書いたあなたを表す 5 つの言葉のアルファベットを、1（最も重要なもの）から 5（重要でないもの）へとランク（順位）づけしてください。

（最も重要）＃1_____ ＃2_____ ＃3_____ ＃4_____ ＃5_____（最も重要でない）

M. お金の使い方
1. あなたにとって最新の最も良いものを買うことは重要ですか。1－2－3－4－5－6－7
2. お祭りでゲームをしたら賞品が当たると思いますか。1－2－3－4－5－6－7
3. 一万円を持ってお祭りに行く時、お金を全て賭けに使って賞品を当てようとしますか。1－2－3－4－5－6－7
4. 買い物をする時、いろいろな店で値段をチェックしますか。1－2－3－4－5－6－7
5. ねだれば、両親や祖父母はあなたがほしい物を買ってくれますか。1－2－3－4－5－6－7
6. 衣料品店で気に入った物を見つけた時、翌週のバーゲンセールまで買うのを待ちますか。1－2－3－4－5－6－7
7. 毎月平均すると、お小使いやアルバイトからの稼ぎはいくらですか。_____円位
8. 毎月どの位買い物にお金を使いますか。（全く使わない）1－2－3－4－5－6－7（全部）
9. 一番の親友は毎月どの位買い物にお金を使いますか。1－2－3－4－5－6－7
10. 二番目の親友は毎月どの位買い物にお金を使いますか。1－2－3－4－5－6－7

11. 自分のお金はたいてい何を買いますか。
一番は　（_____）に使う。
二番目には（_____）に使う。
三番目には（_____）に使う。

1.洋服　2.レストラン　3.ゲーム　4.音楽　5.本・漫画　6.スポーツ　7.ペット　8.お菓子　9.デート　10.学用品　11. 携帯電話　12. コンサート　13.その他(_____)

12. あなたは自分のお金をいつどのように使うのかに注意を払っていますか。
（全く払わない）1－2－3－4－5－6－7 (払う)

13. 一番の親友は自分のお金をいつどのように使うのかに注意を払っていますか。1－2－3－4－5－6－7

14. 二番目の親友は自分のお金をいつどのように使うのかに注意を払っていますか。1－2－3－4－5－6－7

15. 友達や家族に対して、気前よくできますか。1－2－3－4－5－6－7

N. 一番の親友について以下の質問に答えて下さい。
一番の親友と比べた時、自分を肯定的、積極的、あるいは誇れるのは、何ですか
例：（_____）が得意であることは、気分をよくしてくれる。
（_____）であることは、気分をよくしてくれる。

1.(_____)
（日本語でこの線上にあなたの答えを書いて下さい。）

2. あなたは、そのこと（能力など）をどの程度重要だと思っていますか。1－2－3－4－5－6－7

3. 一番の親友と比べて、あなたはそのこと（能力など）にどの位優れていますか。1－2－3－4－5－6－7

4. あなたと比べて、一番の親友はそのこと（能力など）にどの位優れていますか。1－2－3－4－5－6－7

5. あなたと比べて、二番目の親友はそのこと（能力など）にどの位優れていますか。1－2－3－4－5－6－7

O. 一番親しいクラスのグループについて答えて下さい。　最も親しいグループ内で、どのようにしてよい気分になっていますか。（例：私は；面白い、タフである、協力的、美男・美女、親切、ふつうでまとも、金持ち、頭が良い、バカなことする、優しい。）

1. 私はグループ内で一番、_____です。（下線部に書いて下さい）

2. そのことは、あなたにとってどの位重要ですか。1－2－3－4－5－6－7

3. 親しい友人達と比べると、あなたはその点でどの位優れていますか。1－2－3－4－5－6－7

4. 一番の親友は、その点でどの位優れていますか。1－2－3－4－5－6－7

5. 二番目の親友は、その点でどの位優れていますか。1－2－3－4－5－6－7

P. あなたは人生のどの点を最も誇れ、かつ重要だと思っていますか。よく考えてから答えて下さい。例：私は（家族/料理が上手なこと/きれい好きなこと/望むものを手に入れること）に誇りを持っています。

1. 私は、（_____）誇りを持っています。

2. そのことは、あなたにとってどの位重要ですか。1－2－3－4－5－6－7

3. あなたはその点でどの位優れていますか。1－2－3－4－5－6－7

4. 一番の親友は、その点でどの位優れていますか。1－2－3－4－5－6－7

5. 二番目の親友は、その点でどの位優れていますか。1－2－3－4－5－6－7

Q. あなたが大いに誇りに思い、あなた自身とても重要と思われることに、一番の親友(達)は、あなたより優れていますか。(例：私は楽器を弾けることに誇りを持っています。)

1. 私は_____に誇りを持っていますが、一番の親友(達)はもっと優れている。

2. そのことは、あなたにとってどの位重要ですか。1－2－3－4－5－6－7

3. その点であなたはどの位優れていますか。1－2－3－4－5－6－7

4. 一番の親友は、その点でどの位優れていますか。1－2－3－4－5－6－7

5. 二番目の親友は、その点でどの位優れていますか。1－2－3－4－5－6－7

R. 家庭生活について答えて下さい。
1. 親とは、1 週間に何回食事を一緒に食べますか。（＿＿＿＿＿）回
2. 親とは、1 週間に何時間会話をしますか。（＿＿＿＿＿）時間
3. 母親との関係は、いいですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 父親との関係は、いいですか。1 – 2 – 3 – 4 – 5 – 6 – 7
5. 両親との間には、問題がありますか。（全くない）1 – 2 – 3 – 4 – 5 – 6 – 7（非常にある）
6. 兄弟/姉妹との間には、問題がありますか。（全くない）1 – 2 – 3 – 4 – 5 – 6 – 7（非常にある）

S. 先生について答えて下さい。
1. 担任の先生は好きですか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. 担任の先生はあなたのことを気に掛けていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 困ったことがあったら担任の先生に話しますか。1 – 2 – 3 – 4 – 5 – 6 – 7

T. 親友に望む性格
1. 友人として、もっとも重要な性格はなんですか。（＿＿＿＿＿＿＿＿＿＿＿＿）
2. あなたはそのような性格をどの程度もっていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. 一番の親友は、そのような性格をどの程度もっていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 二番目の親友は、そのような性格をどの程度もっていますか。1 – 2 – 3 – 4 – 5 – 6 – 7

U. 学校では、何が得意ですか。(例：科目、音楽、美術、友達作り、など)
1. 私は（＿＿＿＿＿＿＿＿＿＿）が得意です。
2. そのことは、あなたにとってどの位重要ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. あなたはそのことがどの位得意ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. あなたはそのことをどの程度重要だと思っていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
5. 一番の親友はどの位そのことが得意ですか。1 – 2 – 3 – 4 – 5 – 6 – 7
6. 二番目の親友はどの位そのことが得意ですか。1 – 2 – 3 – 4 – 5 – 6 – 7

V. 学校について答えて下さい。
1. 宿題はしますか。1 – 2 – 3 – 4 – 5 – 6 – 7
2. 生徒は公平に扱われていますか。1 – 2 – 3 – 4 – 5 – 6 – 7
3. クラス内には序列がありますか。1 – 2 – 3 – 4 – 5 – 6 – 7
4. 学校でストレスを感じますか。1 – 2 – 3 – 4 – 5 – 6 – 7
5. 学校にはいじめがあると思いますか。1 – 2 – 3 – 4 – 5 – 6 – 7
6. あなたはトラブルメーカーですか。1 – 2 – 3 – 4 – 5 – 6 – 7

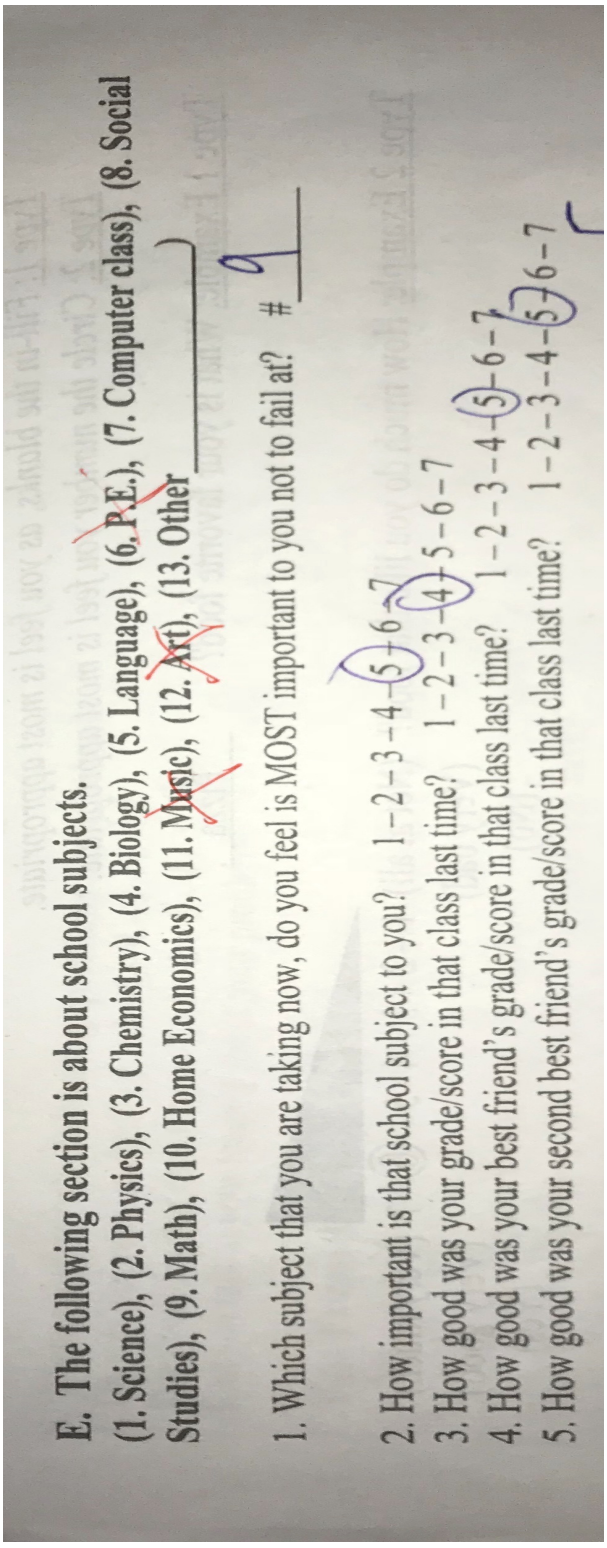
W. ショートストーリです。ある学生が、学校の食堂で床に落ちている財布を見つけました。周りを見渡すと誰もいません。その学生は、その財布からお金を取り出し、空になった財布を元の場所に戻して、家に帰りました。でも、その学生は逮捕されませんでした。

1. もしもあなただったら、同じことをしましたか。
（全くしない）1 – 2 – 3 – 4 – 5 – 6 – 7（完全にそうする）
2. もしも一番の親友 だったら、同じことをしましたか。
（全くしない）1 – 2 – 3 – 4 – 5 – 6 – 7（完全にそうする）
3. もしも二番目の親友 だったら、同じことをしましたか。
（全くしない）1 – 2 – 3 – 4 – 5 – 6 – 7（完全にそうする）

Appendix H

Example of a Singaporean Participant's Answers on the Questionnaire

P.E., Music, and Art are not regular subjects 16-18 year old students take in Singapore.



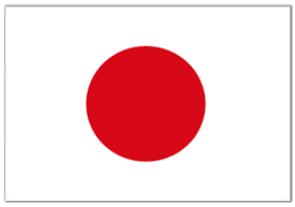
E. The following section is about school subjects.
(1. Science), (2. Physics), (3. Chemistry), (4. Biology), (5. Language), (6. P.E.), (7. Computer class), (8. Social Studies), (9. Math), (10. Home Economics), (11. Music), (12. Art), (13. Other _____)

1. Which subject that you are taking now, do you feel is MOST important to you not to fail at? #_____

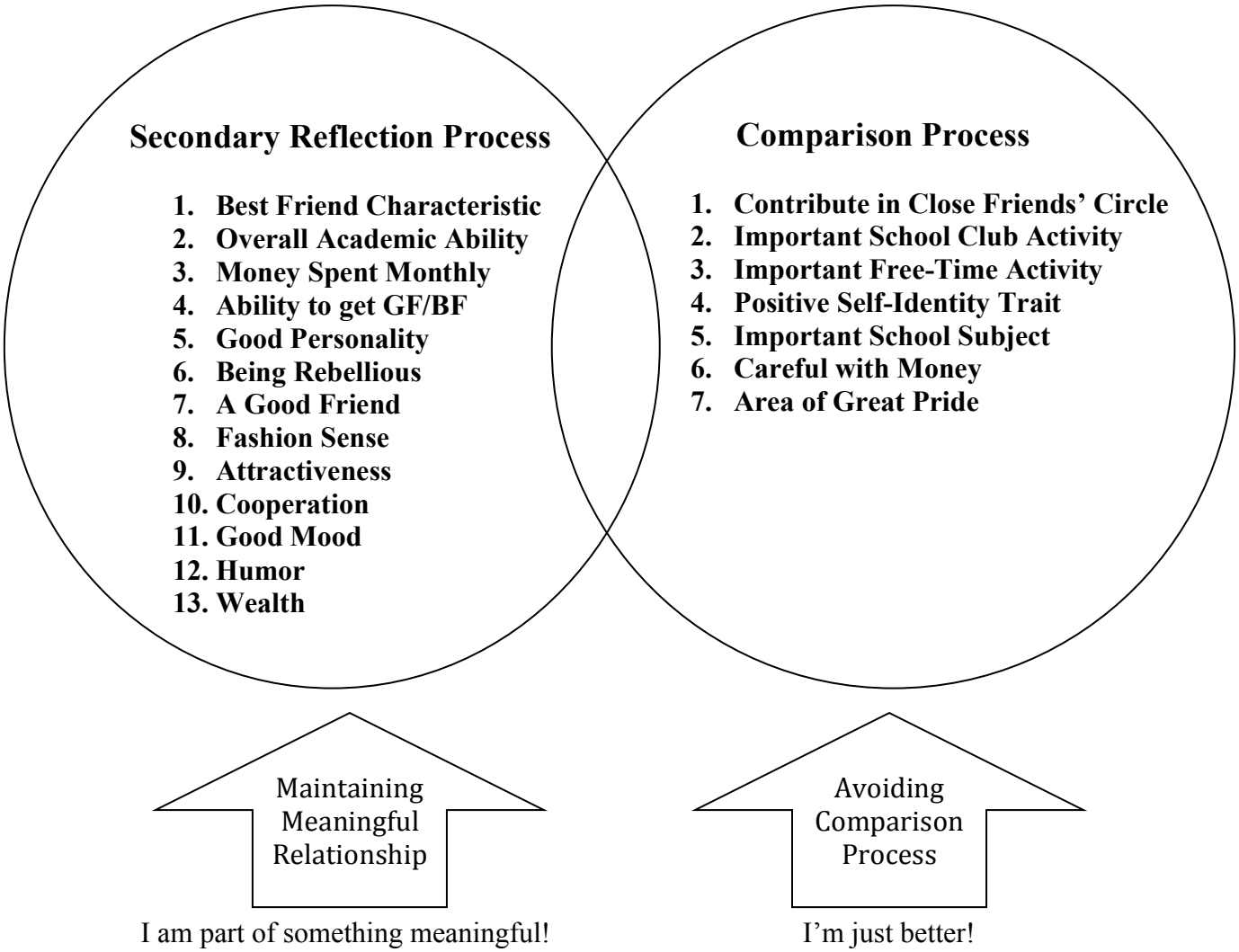
2. How important is that school subject to you? 1 – 2 – 3 – 4 – 5 – 6 – 7
3. How good was your grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7
4. How good was your best friend's grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7
5. How good was your second best friend's grade/score in that class last time? 1 – 2 – 3 – 4 – 5 – 6 – 7

Appendix I

Japan: Comparison Process and Secondary Reflection Process



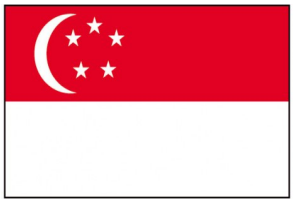
Significant evidence of strategy choice in maintaining a positive self
for highly self-relevant domains (excluding monetary domains).



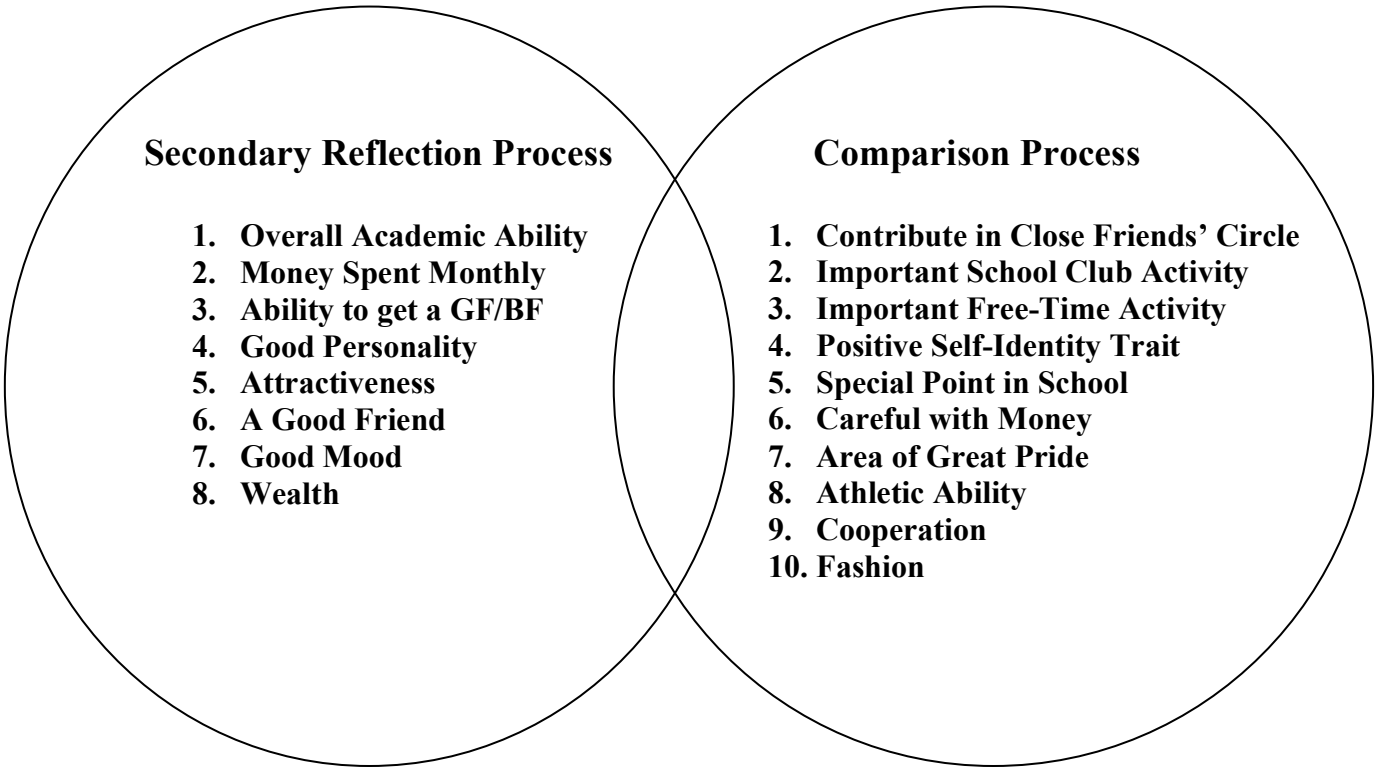
This figure demonstrates which strategy, is significantly employed by Japanese adolescents when maintaining a positive self.

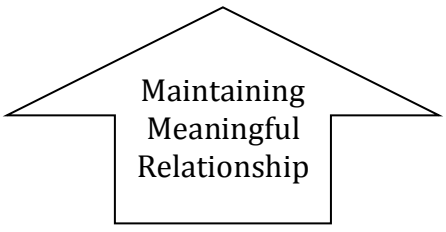
Appendix J

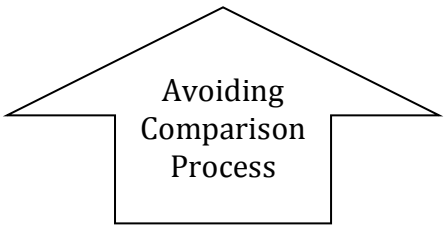
Singapore: Comparison Process and Secondary Reflection Process



Significant evidence of strategy choice in maintaining a positive self
for highly self-relevant domains (excluding monetary domains).







I am part of something meaningful!

I'm just better!

This figure demonstrates which strategy, is significantly employed by Singaporean adolescents when maintaining a positive self.

Appendix K

Erikson's Stage Theory in its Final Version			
Age	*Conflict*	*Resolution or "Virtue"*	*Culmination in old age*
Infancy (0-1 year)	Basic trust vs. mistrust	Hope	Appreciation of interdependence and relatedness
Early Childhood (1-3 years)	Autonomy vs. shame	Will	Acceptance of the cycle of life, from integration to disintegration
Play age (3-6 years)	Initiative vs. guilt	Purpose	Humor; empathy; resilience
School age (6-12 years)	Industry vs. inferiority	Competence	Humility; acceptance of the course of one's life and unfulfilled hopes
Adolescence (12-19 years)	Identity vs. confusion	Fidelity	Sense of complexity of life; merging of sensory, logical and aesthetic perception
Early adulthood (20-25 years)	Intimacy vs. isolation	Love	Sense of the complexity of relationships; vale of tenderness and loving freely
Adulthood (26-64 years)	Generativity vs. stagnation	Care	Caritas; caring for others, and agape, empathy and concern
Old age (65-death)	Integrity vs. despair	Wisdom	Existential identity; a sense of integrity strong enough to withstand physical disintegration