

# **The Impact of Parenting on Susceptibility to Peer Influence: Role of Self-Concept and Culture**

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A Thesis

in

The John Molson School

of

Business

Presented in Partial Fulfilment of the Requirements  
for the Degree of Doctor of Philosophy in Administration at  
Concordia University  
Montreal, Quebec, Canada

May 2007

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*Your file* *Votre référence*  
*ISBN: 978-0-494-31156-1*  
*Our file* *Notre référence*  
*ISBN: 978-0-494-31156-1*

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## **ABSTRACT**

### **The Impact of Parenting on Susceptibility to Peer Influence: Role of Self-Concept and Culture**

Zhiyong Yang, Ph.D.  
Concordia University, 2007

The influence from peers is viewed as the most important factor that causes substance use among teenagers (e.g., Akers et al. 1979; Kandel 1996). Among a variety of preventive factors, certain aspects of parenting (e.g., parental responsiveness, psychological control) are believed to affect adolescents' susceptibility to negative peer influence. These studies have produced some intriguing findings. Nonetheless, three significant gaps remain in the literature. First, previous research of parent-peer linkages has exclusively focused on deviance behaviors. We know little about how parental practices may affect adolescents' susceptibility to peer influence (SPI) on consumer choices. Second, past studies have mainly examined the direct effects of parenting on negative peer pressure, while the process by which parents affect peer relationships remains an area that to date has been underexplored. Lastly, interpersonal influence is inherently a cultural process. Despite the importance of culture as a contextual factor, there has been little academic research on the topic of SPI in a cross-cultural setting.

The purpose of this research is to fill these gaps by further explicating parental influences on SPI. Different from previous studies, we will examine parent-peer linkages not only from the angle of negative peer pressure, but also from a more general perspective to study peer influence on purchasing patterns. More importantly, we will investigate not only the direct effects of relevant parent practices on SPI per se, but also the mediated effects of parenting on SPI through the adolescent self-concept. In addition,

we will extend the proposed parent-self-peer paradigm developed in Western cultures to Eastern cultures, in order to investigate the moderating role of culture on the proposed relationships among parenting dimensions, key elements of self, and SPI.

In Study 1, triadic data from 109 English-Canadian families was collected to verify the proposed parent-self-peer model in the Western context. Consistent with our expectations, results revealed that the effects of parental responsiveness on SPI were fully mediated by key aspects of self-concept, including interdependent self-construal, self-esteem, and self-monitoring. Since Study 1 was cross-sectional and could not verify the causality proposed in our framework, we conducted Study 2 to determine the causal directions of the parent-self-peer relationships through a longitudinal analysis of the National Longitudinal Survey of Children and Youth (NLSCY) data. Findings of the longitudinal analysis largely supported our assumption that parenting dimensions are more likely to be the antecedents of peer influence than conversely.

In Study 3, we gathered 1,142 sets of family triadic data from mainland China and selected a part of the sample ( $n = 216$ ) to test the hypothesized moderating effects of culture on the parent-self-peer linkages. Cross-cultural similarities as well as differences were found in this study. Specifically, in both cultures, parental responsiveness tended to be negatively associated with SPI, while psychological control tended to be positively associated with it. The magnitudes of these relationships and the way through which parents affect SPI, however, were different across the English-Canadian and the Chinese samples. These findings are broadly supportive of our hypotheses. Theoretical and managerial implications to the literature will also be discussed.

## ACKNOWLEDGMENTS

A dissertation is a substantial undertaking and the work could not have been completed without the support and assistance of many others. I apologize in advance if I fail to acknowledge everyone who would deserve it. In addition, the help I have received in this journey is so wonderful that the words of acknowledgment cannot express how grateful I am, but I will try my best to do a good job here.

First of all, I would like to express my appreciation and gratitude to the people who have been instrumental in helping me complete my dissertation and arrive at this place in my career. Dr. Michel Laroche, my chairperson, has been a mentor since I joined in the doctoral program in 2002. For his warmly personal support and trust in my capabilities, I am very grateful. Special thanks are given to Dr. David Forman for his ongoing guidance on my dissertation research. In the entire process, Dr. Forman has given me many insightful comments at every stage of this project, including the framework development, methods, and data analyses. I'm greatly indebted to him for his help.

I also appreciate Dr. Ashesh Mukherjee for the time and effort he has spent on reading previous rounds of my write-up and pushed me to restructure the manuscript for a dozen of times. The critiques from Dr. Mukherjee have improved my thinking style and served as guidelines to advance the logic flow of my dissertation. In addition, I am immensely grateful to Dr. Michele Paulin for spending many hours discussing this project and providing fantastic suggestions on how to improve the quality of this research. Many thanks also go to Dr. Chankon Kim who offered an incredible help in directing me to the area of family research and giving many stimulating comments that aided me to finalize my dissertation topic in Summer 2005.

Second, I would like to acknowledge the financial support I have received during the period of doctoral studies, including a 3-year FQRSC Doctoral Scholarship, a 3-year Concordia University Graduate Fellowship, a 3-year Concordia University External Grant Holder Doctoral Scholarship, and the Humberto Santos Doctoral Fellowship. Without the financial support from these foundations and organizations, it would probably take me a much longer time to complete this journey. Thanks also go to Statistics Canada for issuing me the 2006 QICSS Matching Grant. This research grant not only provides monetary support for my dissertation project, but also assures the SSHRC to assign me access to the NLSCY longitudinal data from a research data center located in 3535 Queen Mary Street, Montreal.

Additionally, I would like to acknowledge the assistance of the research coordinators, school principals, participating teachers, students, and parents for their help in my data collection process in both Canada and China. A special thank to Dr. Kathy Short, the Research Director at the Hamilton Wentworth District school Board. She helped me initiate a contact with several schools under the superintendence of the school board. Furthermore, I really appreciate some school principals, including Mr. Colin Hazell (Vice-Principal of Delta Secondary School), Mr. Beth Burns (Principal of College Avenue Public School), and Mr. William Mitchell (Headmaster of Selwyn House School). I'm also very thankful to many friends and researchers in China for their timely help in collecting data from six Chinese high schools. A number of people have been involved in this process. On the top of this list includes Yun Wu, Yangmei Luo, Yuan Luo, Jian Guo, Hongjuan Yao, Yingli Hu, and Yu Wang.

Third, I am full of gratitude to my colleagues for the sweet time we have shared in

this program. Special thanks go to Mehdi Morali, a previous student in the JMSB and currently an Assistant Professor at University of Calgary, for giving me lots of advice during my doctoral studies. Many thanks are due to Dr. Lianxi Zhou, another wonderful graduate of our program, for leading me to this academic career. His enthusiasm in research has set a great example for me. Besides, I would also like to acknowledge other peer students, such as Jonathan Deschenes, Wenguang Qu and Zhengfeng Ma, for the joys and frustrations we have shared during the picnics and outings.

Forth, I want to convey my appreciation to my church fellows (particularly Rosa Liu, Tommy, Josephine, Desheng Deng, and Huijun Wu) for their pray, comfort, encouragement, and backing over the duration of this project. The Montreal Chinese Alliance Church is just like a larger family that has accommodated my small family for five years. The whole experience of working with these church fellows to serve God in the Mandarin Fellowship has been just wonderful.

Last but not least, I would like to acknowledge the profound contribution of my beloved wife Yiqun Deng and my son Bowen Yang for their love and constant encouragement throughout this entire process. Without their unreserved support, completion of this project would not have been so pleasant. In fact, my original motivation to do this project was to understand more about my son's self-development and see how his self-concept might be influenced by our parenting strategies. I have found the experience to be enjoyable, stimulating and very rewarding. The framework developed out of this project largely reflects what I have learned from the parent-child interactions in my own family. I dedicate this dissertation to them.

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## **CHAPTER ONE**

### **INTRODUCTION AND RATIONALE**

Elena, a 15-year-old girl, normally spends time at the mall after school with her three best friends, Lisa, Anne, and Diane. Elena is new to the school and she feels very fortunate to be included with this group of girls – they are very popular. One day, while looking at some shirts at the mall’s biggest department store, Lisa points to a cool new shirt which barely skims the top of her jeans and shouts, “Let’s each get a shirt like this!” Anne and Diane both agree with this idea, but Elena hesitates because her mother does not allow her to wear a shirt that comes above her midriff. The girls persuade her, however, by saying that if she is truly one of them she will get the shirt. She now faces a dilemma. On the one hand, she does not want to buy this shirt. On the other hand, she knows that if she does not imitate her friends, she may be being kicked out of the group. Theoretically, this dilemma is reflected by a construct in the literature, namely *susceptibility to peer influence (SPI)*.

As a group, adolescents are often portrayed as being extremely susceptible to the influence of peer pressure– more so than both children (Churchill and Moschis 1979) and adults (Park and Lessig 1977). Despite the important role of peers as a socialization agent, a surprisingly small amount of consumer research has investigated interpersonal influence on consumer choices among adolescents (John 1999). Consequently, the question “What are the factors that may drive Elena’s decision to resist or give in to such pressures from her friends?” is haunting both the minds of marketing scholars and marketing practitioners. Based on the psychology literature, and not yet developed in consumer behavior, we believe that Elena’s decision depends to a large extent on two

important factors: the parenting strategies of her parents and her self-concept.

On the one hand, Elena's decision will be based to a large degree on the way she was raised, i.e., parenting may play an important role in her tendency to orient toward peers. Although no research in the area of consumer behavior has so far associated parenting with peer influence, the fact that parenting behaviors may affect the SPI of adolescents is not new to social psychologists. In the psychology literature, certain aspects of parenting have long been documented as effective preventive factors in restraining adolescents' susceptibility to negative peer pressures, which is often viewed as the primary cause of adolescent substance use (e.g., Elliot, Huizinga and Menard 1989; Hawkins and Weiss 1985). Particularly, researchers of parent-peer linkages have shown that specific parenting dimensions (e.g., parental responsiveness, psychological control) exert a great deal of impact on adolescents' negative peer influence, such as affiliation to deviant peers (e.g., Hoffmann 1993; Oxford et al. 2000), susceptibility to antisocial peer pressure (Fuligni and Eccles 1993), and reliance on parents vs. peers to solve their personal problems (Bogenschneider et al. 1998).

On the other hand, every component of Elena's self-concept has laid the groundwork for the extent to which she will be vulnerable to peer pressures. The teenage years are a period of self-discovery. As teens are learning who they are as people and finding their places in the world, many feel the need to fit in with others at all costs. At this age, many teens are still discovering who they are and what they believe in, and it is easy for them to be swayed by the opinions of others, especially when they admire them and desire their acceptance. Some teenagers often find themselves acting in ways contrary to their beliefs in order to belong. Along this line of reasoning, previous research

examining consumer behavior related to interpersonal influence has often associated SPI with individual personality traits, such as self-esteem (Cox and Bauer 1964; Locander and Hermann 1979) and self-monitoring (Lennox and Wolfe 1984; Bearden, Netemeyer and Teel 1990). A general conclusion drawn from previous studies on self-peer interconnections is that consumers with a lower level of self-esteem or a higher level of self-monitoring tend to be more susceptible to peer pressures.

These studies have produced some intriguing findings. However, three significant gaps remain in the literature. First, theory development on parent-peer linkages has mainly focused on the effects of parenting on peer influence in the deviance context. We know little about how parenting may affect adolescents' SPI on purchasing patterns, such as buying an iPod or a T-shirt. Second, most studies of parent-peer linkages have concentrated primarily on the direct effects of parenting dimensions on negative peer pressure, while the process through which parents affect peer relationships remains an area that to date has been underexplored. Lastly, interpersonal influence is inherently a cultural process. Culture-driven attitudes and beliefs provide the context within which the salience of parental influence is played out (e.g., Stevenson, Chen and Uttal 1990; Leung, Lau and Lam 1998). Despite the importance of culture as a contextual factor, little academic research has been conducted on the topic of SPI in a cross-cultural setting. Thus far, no research has addressed the effects of parenting on peer influence in the Chinese society.

The purpose of the current research is to fill these gaps by further explicating parental influences on adolescents' SPI. Different from previous studies, we will examine parent-peer linkages not only from the angle of negative peer pressure, as most

researchers on this topic did (e.g., Bogenschneider et al. 1998; Oxford et al. 2000), but also from the context of a more general level of consumption-related issues. More importantly, we will investigate how relevant parent practices are associated not only with peer influence per se, but also with the development of attitudes, motives, and self-evaluative outcomes related to self-in-relation-to-others, including self-construal (cognitive aspect of self), self-esteem (affective aspect of self), and self-monitoring (social aspect of self). To the best of our knowledge, this research is the first to simultaneously examine the relationships among parenting, self-concept, and SPI. From a theoretical perspective, a simultaneous conceptualization of parent-self-peer linkages contributes to the literature by uncovering the important underlying mechanisms through which parents impact adolescents' peer relationships.

An overarching hypothesis in this research is that some parental behaviors not only have a direct impact on SPI, but also have mediated influence on SPI through key elements of self-concept. To investigate this hypothesis, we will seek to identify relevant parenting dimensions believed to be associated with these adolescent characteristics, building upon the existing literature on parenting. Given that parent-self-peer linkages may be sensitive to sociocultural environments, our theoretical framework will be developed within the Western context because what we have known about this topic was mainly obtained from the Western cultures such as the United States and Canada. After the proposed parent-self-peer paradigm will be verified in the Western milieu, we shall extend it to the Eastern cultures in order to investigate the moderating role of culture on the proposed relationships among parenting, key elements of self, and SPI. Beyond these, we have two further purposes: 1) to measure parental behaviors from the father, mother,

and teenager in the same family in order to triangulate our findings and overcome the single informant bias that has been widespread in past parenting research, and 2) to empirically examine the causal directions in the proposed parent-self-peer model through a longitudinal analysis of the National Longitudinal Survey of Children and Youth (NLSCY) data.

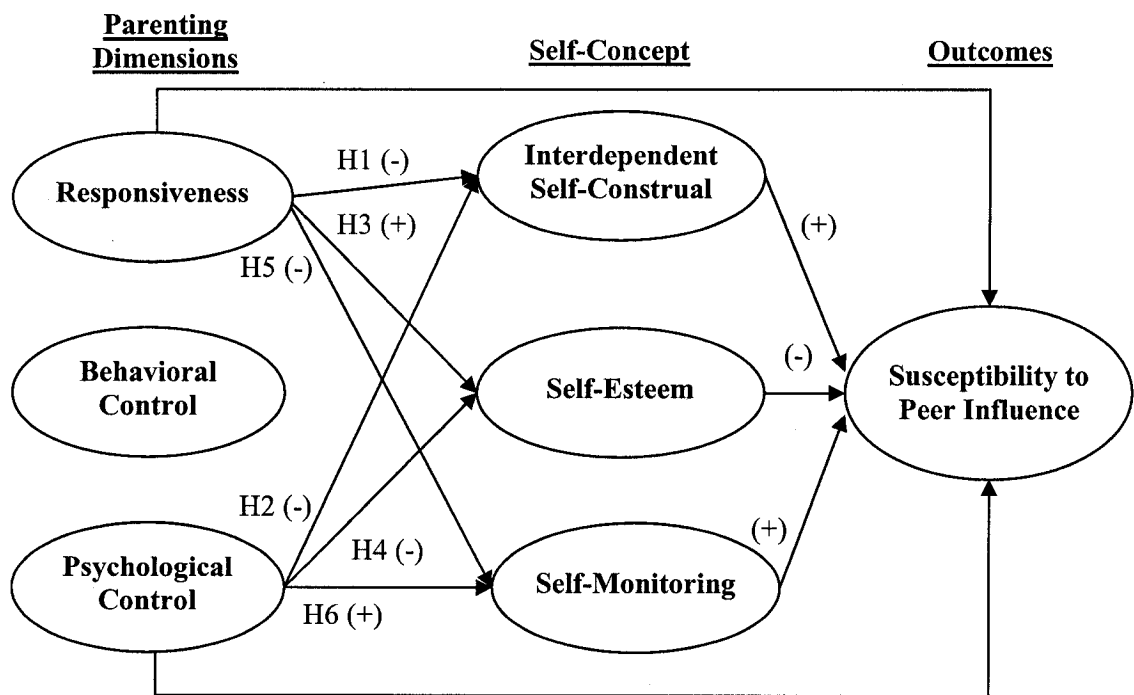
A series of three studies were carried out in this research. The first two studies were conducted in Canada. In Study 1, triadic data from 109 English-Canadian families was collected to verify the proposed parent-self-peer framework in the Western context within which the model was developed. Since Study 1 was cross-sectional and could not directly test the causality between parenting and peer influence, we conducted Study 2 to address two questions through the longitudinal analysis of the NLSCY: a) which is more likely to be the cause in the parent-self-peer model: parenting or peer influence? and b) how does the pattern of parent-self-peer linkages change over time? In addition to these two Canadian studies, a third study was carried out in China so that the English-Canadian sample could be compared to the Chinese sample. Specifically, in Study 3 we first developed theoretical understanding about the potential moderating effects of culture on parent-self-peer linkages, and then used 216 sets of family triadic data gathered from mainland China to test these hypotheses.

This dissertation is organized as follows. Chapter Two documents past studies of parent-peer linkages to provide a research background for our theoretical development. Chapter Three describes the conceptual framework of our proposed parent-self-peer model (see Figure 1-1), with a focus on the mediated effects of parenting dimensions on peer influence via three key aspects of self-concept (i.e., self-construal, self-esteem, and



self-monitoring). Chapter Four details Study 1 which is designed to verify the parent-self-peer linkages in the Western context through the use of multiple-informant data collected from 109 English-Canadian families. To examine whether SPI reflects peer orientation on both normative consumer choices and deviance behaviors, two different measures of peer influence are used in this study, one reflecting normative and the other reflecting negative peer influence. Chapter Five reports Study 2 that is utilized to test the causal directions in the proposed parent-self-peer linkages. Chapter Six presents the theoretical justifications, research design, results and findings of Study 3 which examines the moderating effects of culture on the proposed model. Finally, Chapter Seven gives an overall summary of the findings and research implications of this dissertation, as well as the potential research avenues for future researchers.

**FIGURE 1-1**  
**The Parent-Self-Peer Model**

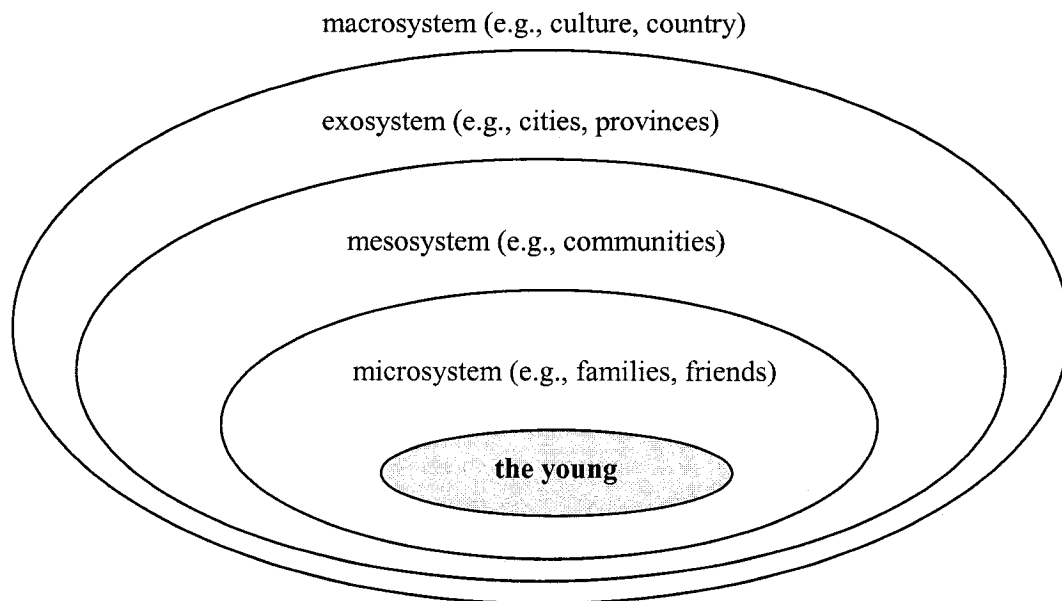


Note:  
Parental behavioral control was used as a covariate in this model and therefore no directional prediction was formed.

## CHAPTER TWO RESEARCH BACKGROUND

According to Bronfenbrenner's (1992) Ecological Systems Theory, the environment within which an adolescent grows-up comprises four layers: the microsystem (e.g., family, friends), the mesosystem (e.g., neighbors), the exosystem (e.g., city), and the macrosystem (e.g., country), in an order from the innermost to the outermost. These four systems or layers are nested in each other and jointly impact the young, as shown in Figure 2-1.

**FIGURE 2-1**  
**Ecological Systems Theory**



The Ecological Systems Theory serves as a fundamental research background for this project as it specifies two important issues relevant to our framework. First, proximal processes in one microsystem, the family, may affect adolescents' peer relationships in another, the peer group (Bronfenbrenner 1992). This argument provides a theoretical

foundation for studies of parent-peer linkages. After the development of this theory, there has been a growing body of research regarding the connections between parenting strategies and peer influence (Oxford et al. 2000; Fuligni and Eccles 1993; Bogenschneider et al. 1998).

Second, Bronfenbrenner's (1992) theory also implies that culture is a broad and more distal variable that tends to have more indirect influences on a youth's development compared to lower-level systems, which are more proximal and exert direct influences. One of the influences culture can have on young people is to moderate the impact of parenting on peer relationships. Cultural values in this context refer to these deeply held and enduring standards about right and wrong, about what ought to be (Miller 1993). The individualism-collectivism (I-C) paradigm has been widely accepted as a fundamental difference between societies (Hofstede 1980). Individualism involves a focus on the self as a unique entity and collectivism involves a focus on the self embedded in group memberships (Triandis 1995). The general social orientation toward collectivism or individualism (macrosystem) may affect parental values and socialization goals (microsystem) that lead to distinct patterns of childrearing practices, as well as adolescents' responses toward parenting, which decide the effectiveness of parenting in a specific culture.

As almost all previous studies of parent-peer linkages documented in the literature were conducted in Western cultures, our literature review in this chapter and the theoretical development in the following chapter are within this individualistic cultural context. Only in Chapter Five do we address the moderating effects of culture on the proposed parent-self-peer model.

## 2.1 Parenting Dimensions

Parenting is defined as a constellation of cognitions, affect and behaviors toward young people that, “taken together, create an emotional climate in which the parent’s behaviors are expressed” (Darling and Steinberg 1993, p.488). Over the past 50 years, researchers have explored the dimensions underlying parenting. Although labels vary and different methods have been used across a variety of disciplines, three general parenting dimensions have emerged: *Parental responsiveness* includes affection, warmth, nurturance, companionship, and support (Barber 1997; Peterson and Hann 1999). Responsive behaviors express confidence, love, acceptance, and feeling of value for the young. *Parental behavioral control* refers to parental methods of firm control aimed towards monitoring the behaviors and activities of youth (Baumrind 1971; Peterson and Hann 1999). Parenting behaviors characterized as behavioral control consist of clearly communicated rules and consistent discipline during the monitoring of activities (Barber 1997; Peterson and Hann 1999).

*Parental psychological control* refers to the degree to which parents use excessive, arbitrary, and coercive parenting behaviors such as threats, physical discipline, love withdrawal, and guilt induction to inhibit the development of psychological autonomy, to keep children and adolescents dependent on the parent, and to help retain power in the relationship (Barber 1997; Peterson, Rollins and Thomas 1985). Psychologically controlling parenting behaviors fail to communicate clear expectations, and therefore, adolescents are not provided with a rationale against which they can evaluate themselves. While an appropriate amount of behavioral control is viewed positively for gaining compliance, and is commonly associated with competent child and adolescent outcomes

(e.g., Baumrind 1971; Steinberg 1990), psychological control is commonly linked to negative child and adolescent developmental outcomes (Coie and Dodge 1998).

In this research, we will focus on two parenting dimensions to develop our research framework: parental responsiveness and psychological control. These two dimensions have been used extensively in socialization research to study associations between parenting and adolescent adjustments with respect to a wide array of developmental factors such as social competence, self-reliance, academic achievement, and behavior problems. Parental responsiveness, for example, has often been associated with positive outcomes among children and adolescents, including higher school grades, fewer behavior problems, less substance abuse, better mental health, greater social competence, and more positive self-esteem (Barber et al. 1992; Darling and Steinberg 1993; Peterson and Hann 1999). By contrast, psychological control has usually been associated with internalized problems in adolescents, such as depression, suicide, eating disorders, and failure to achieve emotional autonomy in adulthood (for a review, see Barber and Harmon 2002). Psychological control also impairs the development of moral internalization and places young people at risk for substance abuse and delinquent activities (Eckenrode and Laiard 1993).

Parental behavioral control, nevertheless, has gained less research attention relative to the other two parenting dimensions in studying the characteristics of adolescents and/or peer relationships. There are mainly two reasons to explain this phenomenon. The first is that during adolescence, emotional connectedness with parents plays a more important role in guiding the behaviors of adolescents than physical rules and supervision do (Bochenschneider et al. 1998). The second reason is that during those

years, the effects of parental behavioral control on adolescent psychological well-being are inconclusive, as they could be either supportive or undermining of autonomy. Adolescents, in comparison with young children, have more diversified views on whether parents are legitimate to make rules on such things as curfew, how to spend spare time, or what sorts of clothes to wear (Smetana 1995). For adolescents who view these issues as personal choices, they are more likely to describe their parents as overly controlling (Smetana 1995). Perhaps because of this, the valence of the relationship between behavioral control and the mental health of adolescents is positive for adolescents who feel that their activities are monitored but negative for those who view such monitoring behaviors as intrusive (Silk, Morris, Kanaya and Steinberg 2003; Smetana and Daddis 2002).

## **2.2 Existing Knowledge about Parent-Peer Linkages**

Large-scale survey studies of parent-peer linkages have linked specific parenting attributes (i.e., parental responsiveness, psychological control) to adolescents' negative peer influence (e.g., Bogenschneider et al. 1998; Oxford et al. 2000; Fuligni and Eccles 1993). Parental responsiveness, for example, is often viewed as a preventive factor to adolescents' association with deviant peers (e.g., Bogenschneider et al. 1998; Simons et al. 2001). Adolescents are at a stage of seeking for independence from their parents while, paradoxically, striving to remain connected to them; therefore, the transformation of the parent-adolescent relationship becomes important to influence peer relationships (Youniss and Smollar 1985). Consistent with this reasoning, maternal responsiveness was found to be inversely related to adolescents' reliance on parents vs. peers to solve their personal problems, which, in turn, was positively related to substance use (e.g.,

Bogenschneider et al. 1998).

There is a dearth of research on the effects of parental psychological control on peer influence, although researchers have associated psychological control with a variety of developmental problems in adolescents, including both internal problems (e.g., depression, eating disorders) and external problems (e.g., aggression and defiance) (see Barber and Harmon 2002 for a review). Among the rare exceptions, Curtner-Smith and Mackinnon-Lewis (1994) examined the link between parenting practices and susceptibility to antisocial peer pressure and found that fathers' usage of negative discipline (e.g., nagging, shouting, hitting) significantly predicted their adolescent boys' tendency to follow their best friend's advice in engaging in antisocial behaviors, such as cheating, stealing, trespassing.

### **2.3 Extending the Extant Knowledge from Deviance Behaviors to Consumer Choices: Direct Effects of Parenting on SPI**

Although our knowledge on parent-peer linkages from the literature is limited to deviant behaviors, we anticipate that this knowledge can also be applied more generally to consumer behavior, such as purchasing an iPod or a T-shirt. The rationale behind this assumption is that consumption-related decisions and deviant behaviors are evidently alike in the following two aspects. First, they are similar in the processes by which peers influence adolescents. More specifically, peers influence others into deviant behaviors by role modeling (Kandel and Andrews 1987), as well as by shaping norms favorable to substance use (Ennett and Bauman 1991; Flay et al. 1994). Likewise, interpersonal influence on brand/product preferences works through compliance with group norms (Burnkrant and Cousineau 1975) and through identifying with significant others (Lord,

Lee and Choong 2001).

Second, consumption-related decisions and deviant behaviors are also similar in their social functions. In many cases, substance use was perceived by adolescents as “functional”, in order to fulfill some developmental needs of adolescents, especially with respect to the sense of acceptance and belonging to the peer group and to the process of identity formation (Bateson 1991; Baumrind 1987). For example, it was not uncommon for study participants to report that they smoked or drank to be sociable or part of the group (Pavis, Masters and Cunningham-Burley 1996; Pavis, Cunningham-Burley and Amos 1997). Given the noticeable similarities between substance use and purchasing behaviors, we expect that a direct link exists between parenting dimensions and SPI on consumption-related issues as well, with a pattern similar to what we found in past deviance studies of parent-peer linkages. To be more specific, we assume that parental responsiveness would negatively influence SPI on both deviant and normative behaviors, whereas psychological control would have a positive impact.

Building upon this assumption, in Chapter Three we will expand the extant knowledge of parent-peer linkages to parent-self-peer relationships. A major reason for this is to develop a theoretical framework that advances our understanding of the mediating effects of the adolescent self on the relationship between parenting and SPI. Specifically, we suggest that an adolescent’s tendency to conform to the attitudes of peers is the result of parental behaviors (i.e., parental responsiveness and psychological control) both directly and indirectly through key elements of self-concept, including self-construal, self-esteem, and self-monitoring.



## **CHAPTER THREE**

### **CONCEPTUAL FRAMEWORK**

One central theme among many self-theories is that the self develops out of social experiences (e.g., Epstein 1973; Mead 1934). Mead (1934), for example, contended that self-esteem is largely derived from the reflected appraisals of other people. At home, adolescents infer how their parents view them from parental behaviors exhibited during daily interactions (Mead 1934). In addition to self-esteem, other aspects of self are also likely to be affected by parental behaviors. From an early age, parents provide adolescents with information about cultural priorities and parental conceptions and expectations (LeVine et al. 1994). Through a history of interactions with parents, adolescents internalize this information, slowly building different aspects of self-concept. In the process of growing into adults, such elements of self-concept organize and regulate the experiences and actions of young people according to the criteria that have been established during their prior interactive histories (cf. Markus and Kitayama 1991).

#### **3.1 Self-Concept**

Self-concept has been defined in numerous ways (Keith and Bracken 1996). Hart and Fegley (1997) described self-concept as “conceptions of physical characteristics, typical activities and abilities, relationships and personality traits, and cognitive and emotional qualities” (p. 130). From this definition, we can infer that self-concept is a multifaceted construct that is a result of the developmental interaction between the understanding that adolescents have of themselves and the views about them from social contexts (Oppenheimer 1990). In this research, we focus on three specific components that relate to the cognitive, affective, and social dimensions of the self-concept,

respectively.

*Self-construal* is the cognitive aspect of self that shows what individuals think about themselves, especially in terms of how self is related to others (e.g., Markus and Kitayama 1991; 1994; Singelis 1994; Triandis 1989, 1994, 1995). Independent-interdependent self-construal can be viewed as the opposite ends of the same spectrum<sup>1</sup> (Markus and Kitayama 1991). The independent self is usually associated with autonomy and separateness of the self from others; in contrast, the interdependent self is associated with connectedness or relatedness of self to others, which involves self-presentations that are blended with representations of others, shared social norms, and flexible interpersonal boundaries (Markus and Kitayama 1991). *Self-esteem* is the affective component of the self that is generally defined in relation to one's feelings of his/her own worthiness and competence (Cooley 1902). *Self-monitoring* is the social aspect of self that refers to the propensity to monitor and control one's own self-presentation behaviors in order to seek social appropriateness (Snyder 1974).

### **3.2 Parenting, Interdependent Self, and SPI**

Little is known about the impact of parental socialization efforts on the development of cognitive self-concept or self-construal, although researchers have argued that the culture one resides in shapes and guides the construction of the type of self-construal that is consistent with the values of the larger society (Yamada and Singelis

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<sup>1</sup> Theory and research on the related constructs of independent-interdependent self-construal vacillate between treating them as unidimensional (i.e., opposite ends on the same continuum) or multidimensional (i.e., independent constructs). Independent and interdependent self-construals were originally believed to represent endpoints lying on the same dimension (e.g., Markus and Kitayama 1991). More recent empirical evidence, however, suggests that the two constructs are orthogonal (e.g., Singelis 1994). In any given culture, people simultaneously possess both types of self-construals that differ in availability and accessibility (e.g., Cross and Madson 1997; Gardner, Gabriel and Lee 1999). To avoid potential confounding effects caused by the dimensionality of self-construal, the present research only assessed participants' extent to which they construed themselves interdependently.

1999). The general conception held by cross-cultural researchers is that there is a tendency for individuals in individualistic cultures (e.g., Canada, the United States) to be more independent, while individuals in collectivistic cultures (e.g., China, Korea, and Japan) tend to be more interdependent (Singelis 1994; Yamada and Singelis 1999). However, this phenomenon only exists at the group level. Significant individual differences in self-construal are found within one culture (Singelis 1994; Escalas and Bettman 2005). While some American adolescents seek more independence (i.e., self-determination) and differentiation (i.e., distinctiveness), others assign more priority to relationships over self-achievements (Escalas and Bettman 2005).

We anticipate that, in individualistic cultures, the social context within which our research framework is developed, responsive parenting would be negatively associated with interdependent self-construal. According to Phalet and Schönplflug (2001), the quality of parent-child relationship is a cultural “transmission belt” to facilitate the transfer of cultural priorities from one generation to another. In particular, in homes with good family relations (e.g., high satisfaction, low conflict), young people tend to seek advice from their parents and look up to them as cultural models, whereas poor family relations decrease parental influence (Furstenburg 1971). Since parental responsiveness usually fosters a positive relationship between parents and adolescents (Peterson and Hann 1999), it tends to hinder the development of interdependent self-construal which is incongruent with individualistic cultural priorities. Consistent with this reasoning, previous studies on the effects of parenting on (in)dependence in Western cultures have shown that adolescents with warm and supportive parents are more likely to strive for independence at a very early age (Geppert and Kuster 1983). Authoritative parents (e.g.,

Dornbusch et al. 1987; Steinberg et al. 1994) and democratic parenting (Enright et al. 1980) enhance the likelihood of adolescents' mature development and making independent decisions.

Psychological control is also expected to negatively influence interdependent self-construal. Psychological control engenders an environment that controls, manipulates, and forces adolescents to comply with the requests of others (Skinner 1998). These behaviors are believed to adversely impact the development of an independent sense of self and identity (Barber and Harmon 2002). Contradictorily, harsh parenting may also impair the interdependent self of adolescents because the Western social context, in which self-determination and distinctiveness are highly valued, makes adolescents aware that the excessive control of their parents is not consistent with the socialization goals of the society. In other words, psychological control may lead to the temporary external compliance of adolescents to their parents but will fail to help them internalize this "other-oriented" self-concept in their own value system. In line with this reasoning, psychological control frequently results in hostility in the family (Rollins and Thomas 1979). Adolescents who perceive their parents as psychologically controlling are more likely to resist parental influence (Kandel 1996; Eccles et al. 1991) and to be more oriented toward the opinions of their peers rather than their parents' (Fuligni and Eccles 1993). In homes that rely heavily upon punitive behaviors, adolescents fail to develop a healthy autonomy-connectedness balance with parents and frequently manifest defiance behaviors (Peterson and Hann 1999).

There is no research in the literature that has examined the relationship between self-construal and SPI. What we know from self-construal studies is that individuals with

predominantly interdependent self-construal tend to incorporate the needs of others into their own motivations and behaviors (Markus and Kitayama 1991). They are more likely to view themselves from the perspectives of others, are highly conscious of group memberships, more vulnerable to criticism and more concerned with the establishment and maintenance of harmonious ties with others (Markus and Kitayama 1991). For those with a strong interdependent self, making decisions based upon their own inner feelings or beliefs may be regarded as immature or selfish; as a result, they are often encouraged to sacrifice personal goals for the good relationship with others (Markus and Kitayama 1991; Triandis 1995). In the same vein, we anticipate that adolescents with higher levels of interdependent-self are more likely to comply with the expectations of their friends in their consumer choices in order to promote interpersonal harmony.

H1: Parental responsiveness negatively impacts interdependent self-construal, which, in turn, positively affects SPI.

H2: Parental psychological control negatively impacts interdependent self-construal, which, in turn, positively affects SPI.

### **3.3 Parenting, Self-Esteem, and SPI**

Responsive parenting behaviors convey information to young people about their worth (Peterson and Leigh 1990) and instill in adolescents a sense of their inherent value (Openshaw, Thomas and Rollins 1984); as a result, adolescent self-esteem is increased. Previous studies examining the effects of responsiveness on self-esteem have consistently found that parental affection or support increases self-esteem in adolescents, whereas failing to receive a sense of parental approval during interactions with their parents decreases it (e.g., Gecas, 1971; Hoelter and Harper 1987; Litovsky and Dusek 1985;

Peterson, Southworth and Peters 1983).

Parental psychological control, on the other hand, is associated with a high level of expectation on the conformity and obedience of adolescents, as well as the use of excessive, arbitrary, and coercive parental behaviors to reach this goal (Barber 1997; Peterson, Rollins and Thomas 1985). Such arbitrary control attempts fail to communicate clear expectations and do not provide a benchmark for adolescents to evaluate themselves. As they often communicate rejection and a lack of respect to their children, parents who frequently use psychological control usually devalue the sense of self in adolescents and create poorer self-evaluations. Congruent with this logic, past research has documented that parental psychological control undermines adolescent self-esteem (Herman et al. 1997; Openshaw, Thomas and Rollins 1983), while granting autonomy promotes their self-worth (Allen and Hauser 1994).

According to Leary's sociometer theory of self-esteem, self-esteem reflects perceptions of interpersonal inclusion versus exclusion (Leary 1999; Leary and Downs 1995; Leary et al. 1995). Whereas low self-esteem reflects insecurity about interpersonal acceptance, high self-esteem indicates a high level of perceived interpersonal regard. Individuals with low self-esteem report more loneliness than their high self-esteem counterparts (Jones et al. 1981), have higher level of social anxiety (Baumeister and Leary 1995; Baumeister and Tice 1990; Leary et al. 1995), and describe themselves as having fewer friends (Hobfoll, Nadler and Leiberman 1986). Individuals with low self-esteem strive to gain the approval of others, a motive that drives them to engage in self-presentation strategies (Brockner 1988), such as voicing agreement with the views of significant others (Premeaux and Bedeian 2003). Conversely, high self-esteem

individuals are more likely to engage in self-esteem reparation at a personal level to reaffirm the self's favorable, individualistic qualities (Leary and Baumeister 2000; Leary et al. 1995), a strategy known as self-protection (Vroom 1964). One such self-protection strategy is to increase self-ratings of intelligence and derogate others by rating generalized others and even their friends less favorably (Beauregard and Dunning 1998). Similarly, previous studies showed that self-esteem is negatively related to normative interpersonal influence on purchasing decisions (Bearden, Netemeyer and Teel 1989) and social comparison in consumption-related issues (Bearden and Rose 1990; Bearden, Netemeyer and Teel 1989).

H3: Parental responsiveness positively impacts self-esteem, which, in turn, negatively affects SPI.

H4: Parental psychological control negatively impacts self-esteem, which, in turn, negatively affects SPI.

### **3.4 Parenting, Self-Monitoring, and SPI**

Self-monitoring includes both the perspective-taking ability (i.e., to catch the expressive cues of others) and the self-adjustment ability (i.e., to apply those cues to guide one's own expressive behavior). Of these two aspects, the emphasis is on the latter, i.e., the tendency to use the behavior of others or the cues sent by others, rather than one's own personality, as guides to one's behaviors (Snyder 1974). Few studies have examined the relationships between parenting strategies and self-monitoring. Among the rare exceptions, Eisenberg et al. (1991) found that parental practices that demand children to control their own feelings and negative emotional displays are positively related to their self-monitoring. More recently, a study by Schoenrock et al. (1999) showed that

high self-monitors often come from families with a high level of conflict and insecurity. A combination of the findings from these two studies seemed to provide support for Graziano and Waschull's (1995) speculation that self-monitoring is a result of parental intolerance or unacceptance of their children's emotional expressions, which can produce distrust of internal cues in these youth and generate poor intergenerational relationships.

Translating these findings into a more general level of parenting, we predict that responsiveness and self-monitoring are negatively associated. A major reason is that parental responsiveness provides a fertile soil to nourish autonomy seeking behaviors of adolescents (Skinner 1998), including freedom of self-expression and personal dignity. The element of responsive parenting tends to de-emphasize role requirements and situational demands relative to personal preferences in determining how adolescents will behave. As a result, adolescents from these families are likely to pay more attention to their inner needs and feelings than to controlling contingencies, an attribute often found among low self-monitors. In addition, responsiveness normally creates close parent-adolescent relationships (Peterson and Hann 1999), which also seems less likely to foster highly self-monitoring adolescents, as per the findings of Schoenrock et al. (1999).

Conversely, psychological control may lead to the development of highly self-monitoring traits. The following two points sustain this postulate. First, psychological control was found to be positively associated with interference in adolescent self-expression, including the expression of opinions (Barber 1996; Kurdek, Fine and Sinclair 1995) and the expression of emotions (Barber 1996; Kuczynski and Kochanska 1995). According to Eisenberg et al. (1991), being forced to control negative emotions usually leads to a high level of self-monitoring. Second, a major motivation for parents to rely on



coercive parenting is that they believe it is an effective tool to ensure appropriate behaviors, impulse control and conformity in adolescents (Ho 1986). Children who fail to meet parental expectations may get physical discipline and love withdrawal; therefore, they will be motivated to be sensitive to the emotional status of their parents, and to adjust their behaviors accordingly, so as to avoid punishment or gain rewards. Over time, such monitoring skills help them “read” the real emotions of others and serve as external controls to tailor their self-presentations, the consequence being a lack of congruence among their behaviors, thoughts, and feelings. Although not directly testing this proposition, Koestner, Bernieri and Zuckerman (1992) did find that individuals who regulate their behaviors according to external or introjected controls have a high level of inconsistency between overt actions and internal states, which is normally found among high self-monitors.

A prototypic high self-monitor has been described as “someone who treats interactions with others as dramatic performances designed to gain attention, make impressions, and at times entertain” (Snyder 1987, p. 178). They are sensitive to contextual cues and are capable of deliberately modifying their behaviors for the sake of desired public appearances (Premeaux and Bedeian 2003). Particularly, high self-monitors are skilled in reading the nonverbal behavior of others to discern underlying emotions (Geizer, Parick and Soldow 1977). They are also more inclined to seek information from others in order to discover the appropriate behavior in a given situation (Rarick, Soldow and Geizer 1976), to acquire biographical and attitudinal information regarding individuals with whom they expect to interact (Elliott 1979), and to look to situational cues for guidance in how to deliver a desired image (Mill 1984). In contrast,

the expressive behaviors of prototypic low self-monitors tend to reflect their own inner attitudes, emotions and dispositions (Premeaux and Bedeian 2003); consequently, low self-monitors are likely to show behavioral consistency across situations and consistency between attitudes and observable actions (Snyder 1983). Since high self-monitors are effective at social integration and behavior adjustment, compared with low self-monitors, they are more susceptible to interpersonal influence on consumer choices (Bearden, Netemeyer and Teel 1990), more vulnerable to pressure from others (Mehra et al. 2001), and more likely to make decisions similar to those with whom they interact socially (Kilduff 1992).

H5: Parental responsiveness negatively impacts self-monitoring, which, in turn, positively affects SPI.

H6: Parental psychological control positively impacts self-monitoring, which, in turn, positively affects SPI.

## **CHAPTER FOUR**

### **STUDY 1: TESTING THE MODEL IN THE WESTERN CONTEXT**

The purpose of Study 1 was to test our hypotheses in Western cultures, because previous studies on parent-peer linkages were almost exclusively conducted within this cultural context. In this study, we used responses from English-Canadian adolescents, as well as their parents, to test the mediated effects of parenting on SPI through three elements of self, including interdependent self-construal, self-esteem, and self-monitoring.

#### **4.1 Method**

##### *4.1.1 Sample*

The sample consisted of English-Canadian family triads (i.e., father, mother, and a teenage child) living in Canada. Adolescents between 13 and 17 years old, along with their parents, were recruited as the participants of Study 1. In order to control for possible confounding effects caused by ethnicity, only those families with European descent (i.e., both parents of the teenager were born in European countries, Canada, or the United States) were included in our analysis. The self-administered questionnaire was pre-tested with nine families that fulfilled the sample selection criteria to ensure clarity, comprehension and ease of completion.

Ethical approval for the study was first obtained from the University Human Research Ethics Committee (UHREC). Then, two school boards were contacted and one of them finally approved our application after a long review process and several rounds of interactions. After issuing their approval to us, an official of the school board helped us approach six high school principals under her superintendence to explain the project and ascertain whether they were interested in participating in the study. Out of these six

high schools, two allowed us to integrate our survey into their syllabi, one using it as a part of the student self-awareness course and the other adding it into their family study program. In return for their participation, we offered a copy of the research results to these schools and to the participating families who were interested in knowing about the research findings. In addition, we made a monetary contribution to these schools: \$10 for each complete set of triadic data (father, mother, and the teenager) and \$5 for each complete set of dyadic data (father or mother and the teenager), respectively. An additional \$15/\$10 cash reward was also directly issued to each family who provided the triadic/dyadic data.

Initially, 402 sets of questionnaires were distributed to the teachers of these two schools. The teachers then handed out the packages in class to their students, each containing three questionnaires, one to be filled out by the student during class (about 15 minutes) and two to be taken home for his/her parents to complete (about 15 minutes) and brought back to the school by the student. Furthermore, 50 sets were distributed in a private high school with the same instructions. A single identification number was assigned to the three questionnaires in each package so that responses by members of the same family could be matched.

Out of the 452 sets of questionnaires distributed, a total of 156 family sets (i.e., 40 dyadic and 116 triadic data) and another 24 student surveys were returned with complete responses. Of these family data, 109 sets were from intact families of European heritage. The average age of the adolescents in these 109 families was 15.6 years, with a range of 13 to 17. Male teenagers accounted for 44%. 89% of the respondents were Caucasians. About 92% of the participating adolescents had siblings and 53% of them were the eldest

child at home. 90.1% of these families had a household income greater than \$60,000.

To check for nonresponse bias, we first compared respondent families (i.e., dyadic and triadic sets) with nonrespondent families (i.e., students' responses only), in terms of the distributions of the adolescent age, gender, birth order and family structure. The results of Pearson chi-square tests indicated that the distributions were the same across these two groups. We then compared the model variables across the nonrespondent and respondent families. The t-tests showed no statistically significant differences in the mean levels of the focal variables, which suggested that response bias was not an issue in this study.

In addition to checking nonresponse bias, for the 109 sets of family triadic data to be used in the further analysis, we also examined potential response differences across the schools where the data were collected. Following the procedures used to test nonresponse bias, we compared both demographic and model variables across the two public schools where a majority of responses were gathered. Neither Pearson chi-square tests nor ANOVA results revealed significant differences; therefore, we put these data together in the subsequent analysis.

#### *4.1.2 Measures*

With the exception of demographic measures, all items in the questionnaire were assessed via 5-point scales. The *parenting style* scale with three distinct dimensions developed by Peterson et al. (1999) was adapted to this research. Of these three dimensions, parental behavioral control was incorporated in our analysis as a covariate. *Self-esteem* was measured by Rosenberg's (1986) Self-Esteem Scale. A scale of *interdependent self-construal* developed by Singelis (1994) was used in this study. *Self-*

*monitoring* was assessed by Snyder's (1974) Self-Monitoring Scale.

It was assumed that the relationships between parenting and SPI proposed in our research would follow a similar pattern to the relationships between parenting and negative peer influence documented in the psychology literature. To verify this assumption, we included two different measures of peer influence in Study 1. One was Bearden, Netemeyer and Teel's (1989) scale of consumer susceptibility to peer influence, which assesses interpersonal influence on a more general level of consumption-related issues. According to Bearden, Netemeyer and Teel (1989), consumer susceptibility to peer influence refers to "the need to identify with or enhance one's image in the opinion of significant others through the acquisition and use of products and brands, and/or the willingness to conform to the expectations of others regarding purchase decisions" (p.473). This SPI scale is the most widely used measure of interpersonal influence in consumer studies and constantly demonstrates sound psychometrical properties (e.g., Mascarenhas and Higby 1993; Bachmann, John and Rao 1993; Lord, Lee and Choong 2001; Bristol and Mangleburg 2005).

The other was Bogenschneider et al.'s (1998) measure of relative peer orientation (RPO), which is a proxy measure of negative peer influence. In accordance with Bogenschneider et al. (1998), RPO was derived by subtracting the scores of two questions: 1) My close friends are the right people to talk to about my personal problems, and 2) My parents are the right people to talk to about my personal problems, anchored at '*strongly disagree*' (1) and '*strongly agree*' (5). To test the anticipation that SPI reflects, to a great extent, a more general level of peer orientation tendency, we also included a measure of *extreme social behaviors (ESB)*, originally developed by Fuligni and Eccles

(1993), as a proxy gauge of deviant behaviors.

All variables, except for parenting, were measured only from the adolescent perspective, as adolescents were the most knowledgeable informants of their own levels of self-concept and peer orientation. On the basis of criticisms that our knowledge of childrearing is based disproportionately on data from mothers (Minuchin 1985), mothers', fathers' and adolescents' responses on parenting dimensions were gathered in this research to triangulate our findings. The use of single informant data (i.e., mothers' responses, most often) has been widespread in past parenting research. This practice has created a gap in our understanding of (1) the differences in paternal and maternal influence on adolescents' peer relationships, and (2) the differences between parents' self-reported and adolescents' perceived parenting dimensions.

A recent trend in studies examining parental influence on self-esteem, however, is toward collecting parenting data from adolescents, rather than from parents. There are mainly two reasons to substantiate this approach. First, "...the actual parental behavior to which an individual has been exposed will largely affect that individual in the way and to the extent that he or she perceives the behavior" (Buri 1991, p. 111). Second, parents' self-reports may be subject to social desirability response biases by attempting to conceal certain behaviors that are socially sanctioned, such as harsh or punitive behaviors (Peterson and Hann 1999). Consistent with these arguments, research on self-esteem has demonstrated that adolescents' reports of parental behaviors have more predictive power on their self-perceptions than parental reports of their own behaviors (Buri 1989; Bush et al. 2002; Gecas and Schwalbe 1986). Following this trend, in the further analysis we relied on adolescents' reports of parenting dimensions to test our hypotheses while

utilizing parents' self-reported child-rearing behaviors to verify the findings.

## **4.2 Analyses and Results**

### *4.2.1 Examining the Model Using Adolescents' Reports of Parenting*

Initial analyses. Before testing the full latent model, a factor analysis was performed on the whole set of items. This factor analysis permitted the identification and the removal of items with poor psychometric proprieties (i.e., items with poor loadings on the respective factors [ $<0.50$ ] and/or those loadings on multiple factors [cross-loadings  $>0.30$ ]) (Pedhazur and Schmelkin 1991). Then a second factor analysis was conducted on the whole set of remaining variables. The results provided 8 distinct factors, jointly explaining 70.1% variance of the data. As shown in Table 4-1, all the extracted factors, except for parental behavioral control, had strong reliabilities, with all Cronbach's alphas above the 0.70 threshold (Nunnally 1978).



**TABLE 4-1**  
**Results of the Exploratory Factor Analysis for the Canadian Data**

Measure/Item	Cronbach Alpha <sup>c</sup>			
	AA	FA	MA	PA
<b>Parental Responsiveness (RES)<sup>ab</sup></b> 1. My parents take my ideas seriously, when making family decisions. 2. My parents talk it over and reason with me when I misbehave. 3. My parents respect my opinion and encourage me to express it. 4. My parents praise me if I do things well.	.85	.78	.81	.70
<b>Parental Behavioral Control (BEH)<sup>ab</sup></b> 1. My parents want to know exactly where I go at night. 2. My parents want to know what I do with my free time. 3. My parents want to know who my friends are.	.68	.73	.78	.55
<b>Parental Psychological Control (PSY)<sup>ab</sup></b> 1. My parents will not talk to me when I have displeased them 2. My parents avoid looking at me when I have disappointed them.	.91	.85	.75	.56
<b>Self-Esteem (ESTEEM)<sup>a</sup></b> 1. In general, I like the way I am. 2. Overall I have a lot to be proud of. 3. I feel that I have a number of good qualities. 4. In general, I feel satisfied with myself.	.80			
<b>Interdependent Self-Construal (DEPEN)<sup>a</sup></b> 1. It is important to me to follow the decisions made by the group. 2. Even when I strongly disagree with group members, I avoid an argument. 3. I will stay in a group if they need me, even when I am not happy with the group. 4. I go along with what others want to do, even when I would rather do something different.	.71			
<b>Self-Monitoring (SMONI)<sup>a</sup></b> 1. I guess I could put on a show to impress or entertain others. 2. At parties, I try to do or say things that other will like. 3. I can trick people by being friendly when I really dislike them. 4. I am not always the person I appear to be.	.72			
<b>Susceptibility to Peer Influence (SPI)<sup>a</sup></b> 1. I would like to purchase products and brands my friends will approve of. 2. To maintain a good relationship with friends, I often purchase the same products or brands they purchase. 3. It is important that others like the products and brands I buy. 4. I feel that the purchase or use of a particular brand will enhance my image. 5. If I want to be like someone, I often buy the same products or brands they buy.	.88			
<b>Extreme Social Behaviors (ESB)<sup>b</sup></b> 1. I act less talented than I really am in order to make someone like me. 2. I do badly on the tests in order to be popular with my friends. 3. I break some of my parents' rules in order to keep my friends. 4. I skip classes because my best friends urge me to. 5. I break rules because my friends urge me to.	.85			

<sup>a</sup>. Response scale for these items was as follows: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*.

<sup>b</sup>. The term "my parents" and the term "my child" were replaced with the appropriate terms in parental surveys.

<sup>c</sup>. Response scale for these items was as follows: 1 = *never*, 2 = *seldom*, 3 = *sometimes*, 4 = *often*, and 5 = *very often*. A sum of these 5 items was used as the measure of extreme social behaviors.

<sup>d</sup>. AA = Adolescents' Assessments; FA = Fathers' Assessments; MA = Mothers' Assessments; PA = Parents' Assessments. The indicators of parents' assessments were the mean scores of fathers' assessments and the mean scores of mothers' assessments.

Measurement model. Before testing the full latent model, the EQS software of Bentler (1992) was used to perform a CFA on the measurement model. Estimation displayed desirable goodness of fit statistics for our data, as indicated by  $\chi^2(213) = 265.7$ ,  $\chi^2/df = 1.25$ ,  $p = .008$ , CFI = .944, RMSEA = .048. We then assessed convergent and discriminant validity of these factors. Evidence of the former relates to the extent to which items correlate strongly with other items used to measure the same construct, while the latter refers to the degree to which measures of different constructs are unique from each other (Churchill 1979). According to Fornell and Larcker (1981), convergent validity is established if the average variance extracted for each factor accounts for 0.50 or more of the total variance. As shown in Table 4-2, the results confirmed convergent validity of these factors extracted from our data, with the average variance extracted for the factors were all above the 0.50 cut-off value, ranging from .510 to .842. Moreover, Anderson and Gerbing (1988) note that convergent validity is demonstrated by statistically significant path coefficients. In this study, all coefficients were significant at the  $p < .05$  level.

**TABLE 4-2**  
**Tests<sup>a</sup> for Convergent and Discriminant Validity**

<b>Construct<sup>b</sup></b>	<b>RES</b>	<b>PSY</b>	<b>BEH</b>	<b>ESTEEM</b>	<b>DEPEN</b>	<b>SMONI</b>	<b>SPI</b>
RES	.594						
PSY	.167	.842					
BEH	.005	.075	.626				
ESTEEM	.367	.079	.028	.528			
DEPEN	.091	.055	.013	.017	.522		
SMONI	.084	.004	.033	.027	.317	.510	
SPI	.088	.181	.011	.031	.294	.253	.796

<sup>a</sup> The diagonal entries show Fornell and Larcker's (1981) index of the average variance extracted by the construct. Entries below the diagonal represent squared correlation coefficients.

<sup>b</sup> RES = Responsiveness, PSY = Psychological control, BEH = Parental behavioral control, ESTEEM = Self-esteem, DEPEN = Interdependent self-construal, SMONI = Self-monitoring, SPI = Susceptibility to peer influence.

Discriminant validity is established if the average variance extracted is larger than the squared correlation coefficients between factors (Fornell and Larcker 1981). Results in Table 4-2 showed that this criterion was met across all pairs of factors. Furthermore, results from LaGrange Multiplier (LM) tests indicated no significant cross-loadings for measurement items with non-hypothesized constructs thus providing additional evidence to support the discriminant validity of these constructs.

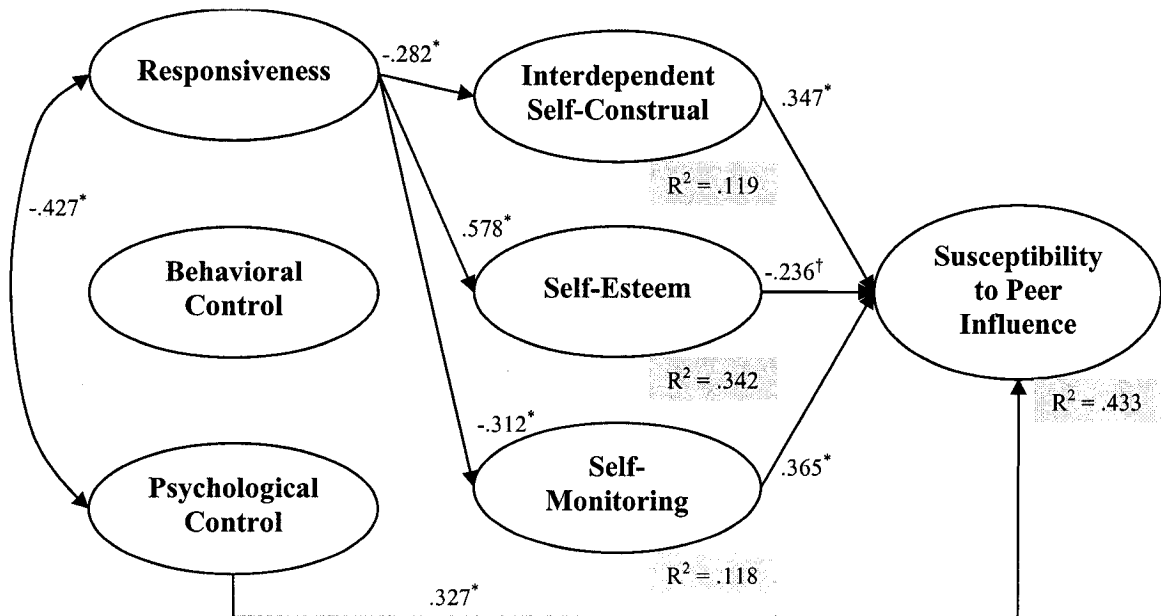
Testing assumptions (the direct effects of parenting on SPI). In this research, we assumed that responsiveness would negatively impact SPI, while psychological control would positively impact it. To test this assumption, we conducted a two-step analysis to examine the parent-peer relationships. The first step involved modeling only three latent factors: responsiveness, psychological control, and SPI. Consistent with our expectations, SPI was found to be negatively associated with responsiveness (-.255,  $p < .05$ ) but positively associated with psychological control (.344,  $p < .05$ ).

During the second step, we introduced the key elements of self-concept into this three-factor model. After these variables were included, the magnitude of the responsiveness-SPI linkage was sharply curtailed (-.065,  $p > .10$ ), indicating that self-concept fully mediated the relationship between responsiveness and SPI. The estimate of the relationship between psychological control and SPI remained significant after these self-concept variables were present (.327,  $p < .05$ ). None of the links between psychological control and self-concept, however, reached the significant level ( $p < .05$ ). Taken together, these results largely supported our assumption that responsiveness negatively affects SPI, whereas psychological control positively affects it. Yet, the effects of responsiveness on SPI were fully mediated by key elements of self-concept.

Testing hypotheses (the mediating effects of self-concept on parent-peer linkages).

The full latent model (see Figure 4-1) was specified to examine the relationships among all parenting dimensions, the three aspects of self, and SPI. Estimation of the structural model generated an excellent fit:  $\chi^2(213, N=109) = 265.7$ ,  $\chi^2/df = 1.25$ ,  $p = .008$ , CFI = .944, RMSEA = .048. The covariate, parental behavioral control, was not significantly associated with SPI (.049,  $p > .10$ ). This result was similar to what other researchers had found by using RPO as a measure of peer influence (e.g., Bogenschneider et al. 1998).

**FIGURE 4-1**  
**Results<sup>a</sup> of the Parent-Self-Peer Model for the English-Canadians**



**Fit Indices<sup>b</sup>:**  
 $\chi^2 (N = 109) = 265.7$ ,  $df = 213$ ,  $\chi^2/df = 1.25$ ,  $p = .008$ , CFI = .944, RMSEA = .048

*Note:*

- a. All paths among parenting dimensions, self-concept, and peer influence were estimated, but only significant paths (\*,  $p < .05$ ; †,  $p < .10$ ) are displayed. Values associated with each path are standardized regression coefficients.
- b. The cutoff values suggested for an adequate fit are: standardized  $\chi^2$  ( $\chi^2/df$ ) values smaller than 5 (Taylor & Todd 1995), comparative fit index (CFI) greater than 0.90 (Bentler 1992), and the root mean square error of approximation (RMSEA) smaller than .06 (Browne and Cudeck 1989).

In H1, H3, and H5, we hypothesized that parental responsiveness would have

mediated effects on SPI by way of interdependent self, self-esteem, and self-monitoring. A closer look at the estimates showed a strong support for these three hypotheses. To be more specific, responsiveness was found to indirectly affect SPI through interdependent-self (responsiveness  $\rightarrow$  interdependent-self:  $-.282$ ,  $p < .05$ ; interdependent-self  $\rightarrow$  SPI:  $.347$ ,  $p < .05$ ), through self-esteem (responsiveness  $\rightarrow$  self-esteem:  $.578$ ,  $p < .05$ ; self-esteem  $\rightarrow$  SPI:  $-.236$ ,  $p < .10$ ), and through self-monitoring (responsiveness  $\rightarrow$  self-monitoring:  $-.312$ ,  $p < .05$ ; self-monitoring  $\rightarrow$  SPI:  $.365$ ,  $p < .05$ ), respectively.

In H2, H4, and H6, we expected that psychological control would be significantly associated with the three key elements of self, which in turn would affect SPI. The first part of this expectation, however, was not supported by our data. Specifically, when the effects of other variables were not taken into account, psychological control was found to be only marginally related to interdependent self ( $.125$ ,  $p < .10$ ) and to self-esteem ( $-.146$ ,  $p < .10$ ), but not to self-monitoring ( $.028$ ,  $p > .10$ ). None of these trends remained in the full latent model where responsiveness and self variables were also specified; consequently, H2, H4, and H6 were not substantiated by our data.

**TABLE 4-3**  
**Results of the Parent-Self-Peer Model with both Parents' and Adolescents' Reports of Parenting**

Causal Paths in the Parent-Self-Peer Model <sup>a</sup>	Standardized $\beta$ values <sup>c</sup>			
	Paternal Parenting from Fathers' Assessments	Maternal Parenting from Mothers' Assessments	Parenting from Both Parents' Assessments	Parenting from Adolescents' Assessments
<b>Parent → Peer</b>				
RES → SPI	-.081	-.133	-.190	-.065
PSY → SPI	.278*	.227*	.246*	.327*
BEH → SPI	-.018	.140	.098	.049
<b>Parent → Self</b>				
RES → DEPEND (H1)	-.392*	-.264*	-.549*	-.282*
PSY → DEPEND (H2)	.092	.089	.004	.088
RES → ESTEEM (H3)	.003	.203†	.394*	.578*
PSY → ESTEEM (H4)	-.175	-.110	-.200	.030
RES → SMONI (H5)	-.203	-.161	-.456*	-.312*
PSY → SMONI (H6)	-.013	.030	-.080	-.037
BEH → ESTEEM	.132	.101	.079	.106
BEH → DEPEND	.296*	.028	.389*	.099
BEH → SMONI	.325*	.325*	.388*	-.144
<b>Self → Peer</b>				
ESTEEM → SPI	-.169	-.200†	-.211†	-.236†
DEPEND → SPI	.405*	.369*	.281*	.347*
SMONI → SPI	.315*	.315*	.269*	.365*
<b>Fit Indices<sup>b</sup></b>	$\chi^2 = 287.5$ , $df = 213$ $\chi^2/df = 1.35$ , $p = .003$ CFI = .908, RMSEA = .057	$\chi^2 = 254.2$ , $df = 213$ $\chi^2/df = 1.19$ , $p = .031$ CFI = .945, RMSEA = .042	$\chi^2 = 235.0$ , $df = 172$ $\chi^2/df = 1.37$ , $p = .001$ CFI = .902, RMSEA = .058	$\chi^2 = 265.7$ , $df = 213$ $\chi^2/df = 1.25$ , $p = .008$ CFI = .944, RMSEA = .048

<sup>a</sup> RES = Responsiveness, PSY = Psychological control, BEH = Parental behavioral control, ESTEEM = Self-esteem, DEPEND = Interdependent self-construal, SMONI = Self-monitoring, SPI = Susceptibility to peer influence.

<sup>b</sup> The cutoff values suggested for an adequate fit are: standardized  $\chi^2$  ( $\chi^2/df$ ) values smaller than 5 (Taylor & Todd 1995), comparative fit index (CFI) greater than 0.90 (Bentler 1992), and the root mean square error of approximation (RMSEA) smaller than .06 (Browne and Cudeck 1989).

<sup>c</sup> A \* and a † indicated causal paths significant at  $p < .05$  and at  $p < .10$ , respectively.

#### 4.2.2 Triangulating the Findings Using Parents' Self-Reported Parenting

Parents' self-reported parental behaviors were used to replace adolescents' reports of parenting in order to provide cross-validation to our proposed parent-self-peer model. As expected, three *a priori* parenting dimensions were also found in both mothers' and fathers' data, with a factor structure identical to adolescents' reports of parenting. Following similar procedures used previously, we conducted a series of path analyses with paternal parenting only, maternal parenting only, and a combination of both parents' self-reported parenting (e.g., fathers' and mothers' self-reported responsiveness were averaged separately and used as indicators to form the latent factor of parental responsiveness) to examine the parent-self-SPI relationships. The results, along with those derived from adolescents' data, were presented in Table 4-3.

Consistent with adolescents' reports, fathers' and mothers' self-reported psychological control had a significant direct influence on SPI (fathers: .278,  $p < .05$ ; mothers: .227,  $p < .05$ ) but neither paternal nor maternal psychological control was significantly related to any aspect of self-concept. In addition, paternal and maternal responsiveness was negatively related to interdependent-self (fathers: -.392,  $p < .05$ ; mothers: -.264,  $p < .05$ ), which, in turn, positively affected SPI (fathers: .405,  $p < .05$ ; mothers: .369,  $p < .05$ ). These results provided support for H1.

Similar to previous research on self-esteem (Buri 1989; Bush et al. 2002; Gecas and Schwalbe 1986), our study showed that fathers' or mothers' reports of their own child-rearing behaviors did not have the same predictive power as adolescents' reports of parenting on the key elements of the adolescent self. As revealed in Table 4-3, fathers' self-reported paternal responsiveness was not significantly associated with either self-

esteem (.003,  $p > .10$ ) or self-monitoring (-.203,  $p > .10$ ), whereas mothers' self-reported maternal responsiveness was only marginally associated with self-esteem (.200,  $p < .10$ ) but not with self-monitoring (-.161,  $p > .10$ ). An examination of  $R^2$  provided more direct evidence in this aspect. 34.2% of the variance of self-esteem was explained by adolescents' perceived parenting, while only 5.4% and 6.9% of the variance were explained by fathers' and mothers' self-reported parenting, respectively.

A combination of both fathers' and mothers' responses on parenting, nevertheless, was found to improve dramatically the predictive power of the key elements of self in adolescents. As presented in Table 4-3, parental responsiveness (i.e., the aggregate of both paternal and maternal responsiveness) was significantly related to all three elements of self, which in turn, affected SPI. These results were largely consistent with our H1, H3, and H5. In other words, the combined measure of parental responsiveness showed a similar portrait of what we established from the data collected from adolescents. It was quite normal to see that aggregated parenting provided much stronger results than either fathers' or mothers' parental reports alone since the between-parent variance (i.e., disparity between fathers' and mothers' reports of parenting behaviors) was taken away through aggregation (cf., Raudenbush and Bryk 2002).

#### *4.2.3 Expanding the Model to the Behavior Side: Comparing the Predictive Power of Different Measures of Peer influence*

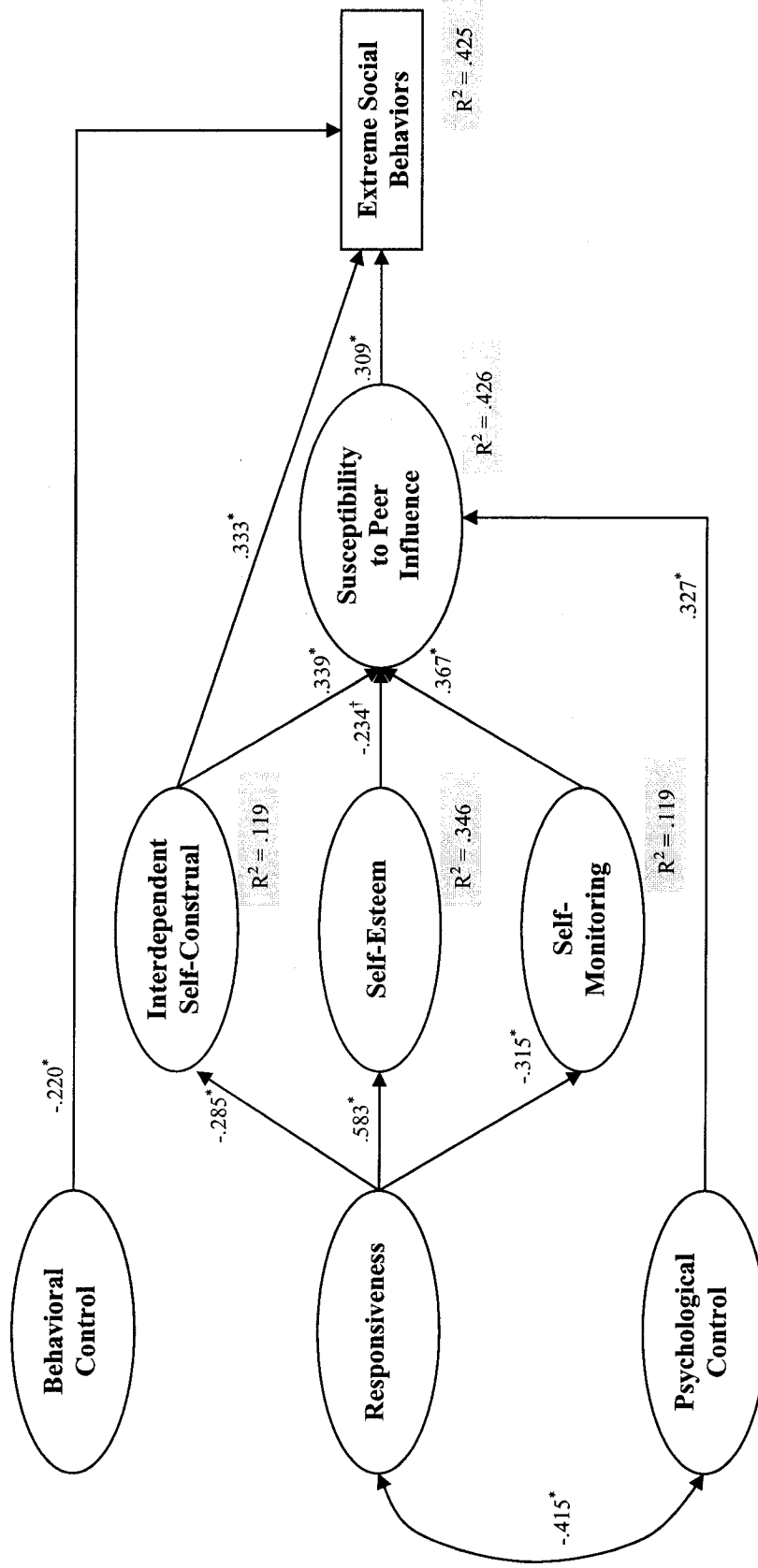
In the literature, the measure of SPI has not been linked to any deviant behavior before. In order to examine whether SPI is a good reflection of both normative and deviant peer influence, we expanded our proposed parent-self-peer model in Figure 1-1 by adding a proxy measure of deviant behaviors, namely *extreme social behaviors (ESB)*.



ESB is often viewed as a product of negative peer influence (Fuligni and Eccles 1993). Our expectation was that SPI would have a positive association with ESB, similar to what psychologists (e.g., Bogenschneider et al. 1998; Oxford et al. 2000; Fuligni and Eccles 1993) found between negative peer pressure and substance use.

As indicated in Figure 4-2, the model fitted the data very well, with  $\chi^2(229, N=109) = 296.0, p < .05, \chi^2/df = 1.29, RMSEA = 0.052, \text{ and } CFI = 0.93$ . Consistent with our expectations, SPI was found to be strongly associated with ESB (.309,  $p < .05$ ), after the effects of parental behavioral control (-.220,  $p < .05$ ) were controlled. Variance analysis revealed that 37.5% of the variance in ESB was explained by SPI alone, lending strong support for our postulation that SPI is an appropriate measure of peer influence across both normative and deviant settings. Another important factor that directly impacted ESB was interdependent self-construal (.333,  $p < .05$ ), signifying that adolescents with a high level of interdependent self were more likely to set aside parental rules, schoolwork, and even their talents in order to be popular with friends. Neither responsiveness nor psychological control had a direct link with ESB; instead, they affected ESB indirectly: parental responsiveness influenced ESB via three key aspects of self, whereas psychological control impacted ESB through SPI.

**FIGURE 4-2**  
**Results<sup>a</sup> of the Parent-Self-SPI Model When Linked to Extreme Social Behaviors**

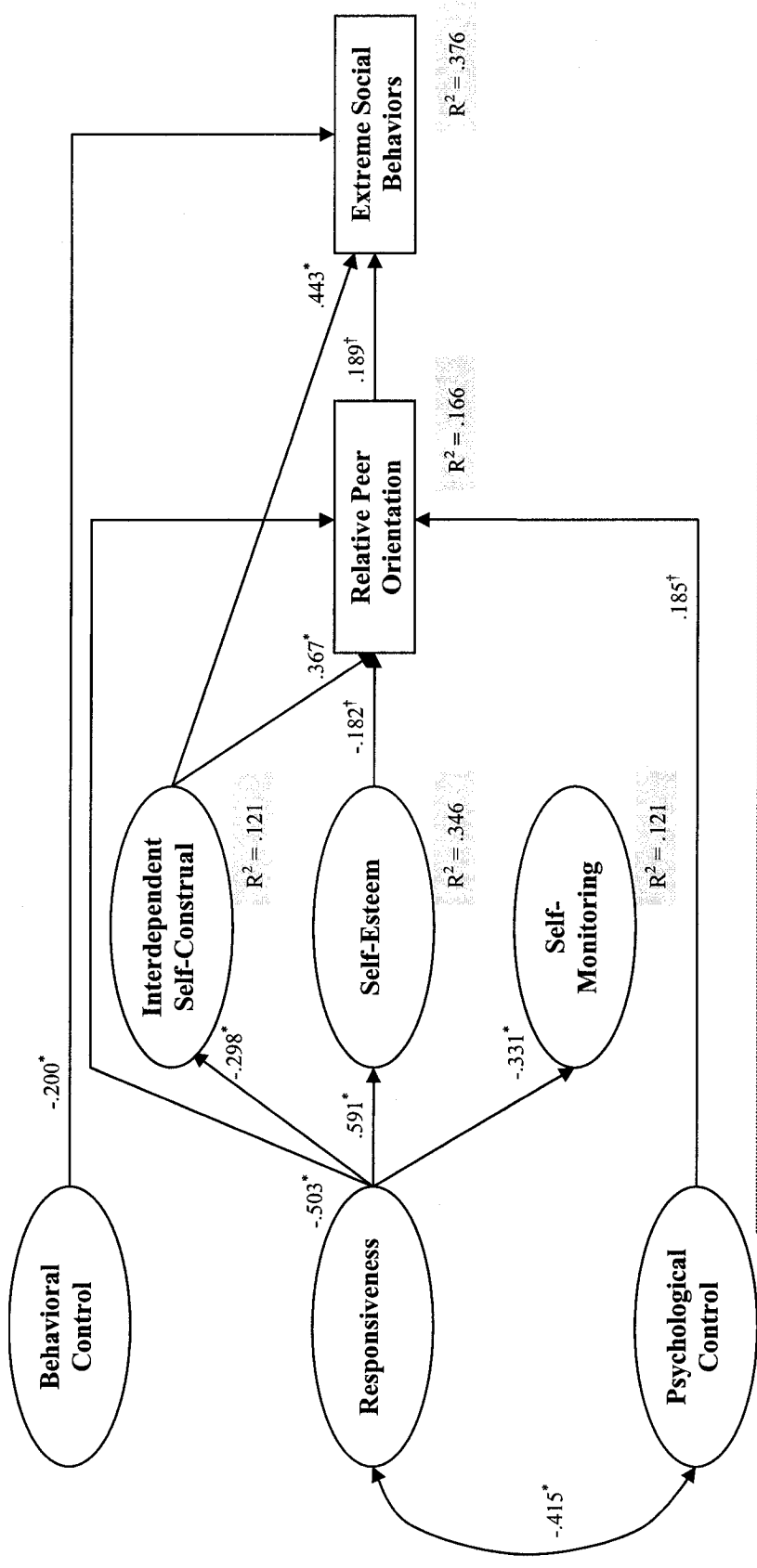


**Fit Indices<sup>b</sup>:**  
 $\chi^2$  (N = 109) = 296.0, df = 229,  $\chi^2/df = 1.29$ , p = .002, CFI = .933, RMSEA = .052

**Note:**  
 a. All paths among parenting dimensions, self-concept, and peer influence were estimated, but only significant paths (\*, p < .05; †, p < .10) are displayed. Values associated with each path are standardized regression coefficients.  
 b. The cutoff values suggested for an adequate fit are: standardized  $\chi^2$  ( $\chi^2/df$ ) values smaller than 5 (Taylor & Todd 1995), comparative fit index (CFI) greater than 0.90 (Bentler 1992), and the root mean square error of approximation (RMSEA) smaller than .06 (Browne and Cudeck 1989).

To examine the explaining power of SPI on ESB, we re-specified the parent-self-peer model by replacing SPI with RPO, a proxy measure of negative peer influence. As shown in Figure 4-3, results of the analysis indicated an excellent fit of the model:  $\chi^2(167, N=109) = 193.6, p < .10, \chi^2/df = 1.16, RMSEA = 0.038, \text{ and } CFI = 0.96$ . Congruent with previous research (e.g., Bogenschneider et al. 1998; Barnes and Farrell 1992), our study showed that parental responsiveness had a direct influence on RPO ( $-.503, p < .05$ ), which, in turn, positively influenced ESB ( $.189, p < .10$ ). However, RPO only explained 13.1% of the variance in ESB, much less than did SPI; thus further upholding our anticipation that SPI reflects a broader scope of peer influence. In addition to its direct effects, responsiveness also had mediated effects on RPO via both interdependent self-construal (responsiveness  $\rightarrow$  interdependent-self:  $-.298, p < .05$ ; interdependent-self  $\rightarrow$  RPO:  $.367, p < .05$ ) and self-esteem (responsiveness  $\rightarrow$  self-esteem:  $.591, p < .05$ ; self-esteem  $\rightarrow$  RPO:  $-.182, p < .10$ ); therefore, H1 and H3 were maintained when RPO was used as a measure of peer influence. These results, along with the strong support of the responsiveness-self-SPI linkages, provided additional evidence to uphold our overarching proposition that parenting dimensions, especially parental responsiveness, affects teenagers' peer relationships mainly through influencing the key elements of their self-concept.

**FIGURE 4-3**  
**Results<sup>a</sup> of the Parent-Self-RPO Model When Linked to Extreme Social Behaviors**



**Fit Indices<sup>b</sup>:**  
 $\chi^2 (N = 109) = 193.6, df = 167, \chi^2/df = 1.16, p = .077, CFI = .961, RMSEA = .038$

**Note:**  
 a. All paths among parenting dimensions, self-concept, and peer influence were estimated, but only significant paths ( $^*$ ,  $p < .05$ ;  $^\dagger$ ,  $p < .10$ ) are displayed. Values associated with each path are standardized regression coefficients.  
 b. The cutoff values suggested for an adequate fit are: standardized  $\chi^2$  ( $\chi^2/df$ ) values smaller than 5 (Taylor & Todd 1995), comparative fit index (CFI) greater than 0.90 (Bentler 1992), and the root mean square error of approximation (RMSEA) smaller than .06 (Browne and Cudeck 1989).

### **4.3 Discussion**

In Study 1, the relationships among parenting dimensions, key elements of self, and peer influence were examined through the use of multiple-informant data and the use of different measures of peer influence. The results were largely consistent with our assumptions and hypotheses.

There are three major findings in Study 1. To begin with, our results suggest that parents affect adolescents' SPI mainly in two ways. On the one hand, parental responsiveness impacts peer influence through its contribution to self-concept development of adolescents (i.e., interdependent self-construal, self-esteem, and self-monitoring). Specifically, adolescents with a higher level of responsive parenting tend to feel better about themselves, seek more independence and differentiation, and assign more priority to their inner feelings over controlling contingencies. These aspects of self serve as the inner resources that facilitate their negotiation with peer pressures. These findings contribute to the literature by advancing our knowledge about the mechanisms through which parents affect peer relationships. Particularly, our research is the first to view the inner resources of adolescents as potential mediators on the parent-peer linkages.

On the other hand, psychological control directly drives adolescents away from home to stay closer to their peers, without necessarily affecting their self-concept development. Although intuitively surprising, this finding is logical in the sense that teenagers are expected by society to follow their own initiatives to make decisions and achieve their personal goals. When they perceive that their parents use psychological control to manipulate or force them to comply with their requests, they may treat parental coercive behaviors as a signal of rejection and hence rebel against their parents. This

speculation is in line with opinions from previous researchers. Rollins and Thomas (1979), for instance, found that when parents used coercive parenting to ensure unquestionable conformity and obedience from their adolescents, there appeared to be a high level of intergenerational hostility in the family. Rather than feeling depressed and anxious as they did during childhood, adolescents were more disobedient and more likely to turn to their peers for advice and support if they perceived their parents to be psychologically controlling (Eccles et al. 1991).

Furthermore, our results suggest that it is the combination of both parents' parental behaviors, rather than any one of the parents' alone, that has the strongest influence on adolescents' self-concept. Therefore, collecting data from one of the parents but interpreting the results at the parent level may be misleading. Essentially, our findings supported Minuchin's (1985) suggestion that researchers studying parent-peer linkages should collect parenting information from both fathers and mothers to avoid biased views. These results were also consistent with Buri's (1991) argument that using adolescents' perceptions of parenting has more predictive power than using only one parent's self-reports in studying parent-self linkages.

Finally, the parent-self-peer linkages were largely supported by two different measures of peer influence: SPI and RPO, with the latter being a more widely used measure of peer influence in the psychology literature. This finding provides a more rigorous test for our proposed framework and suggests that some key aspects of self-concept are important mechanisms through which parents influence adolescents' peer relationships. In addition, it indicates that SPI is an appropriate measure of peer influence both for consumption-related decisions and for deviant behaviors. Within a more

homogenous group, such as adolescents from intact families, SPI is even more predictive of their extreme social behaviors than RPO. This may be due to the fact that SPI reflects a more general sense of peer influence rather than focusing only on negative peer pressure.

These results, however, must be interpreted with a caveat. Clearly, Study 1 contained some weaknesses that deserve attention. First, the sample in Study 1 was collected from local regions, and as such its findings might not be generalizable to a wider population of adolescents from the middle-class intact families. Second, the cross-sectional research design of Study 1 did not allow us to empirically test the causal directions between parenting dimensions and peer influence proposed in our framework. The parent-peer associations found in Study 1 would be observed if parental behaviors caused peer influence, if peer influence caused parental reactions, or if they were reciprocally related. Our results would be more convincing if alternative explanations were removed.

Accordingly, Study 2 was conducted to examine the relationships among parenting dimensions, self-esteem, and RPO (i.e., H3 and H4) using a national sample of Canadian youth. As the data was collected from the same respondents at different developmental stages (from late childhood to adolescence), Study 2 also allowed us to test the directional relationships suggested in our parent-self-peer model. By following participants through time from as young as 10 and 11 years of age, our intention was to map the developmental process of the teenagers' self-concept and their level of peer orientation and to provide critical information concerning how parenting dimensions affected such developmental changes over a period of four years. An additional advantage of using such longitudinal data was to examine whether the effects of

psychological control on self-concept declined over time, an argument we made to explain the non-significant paths between psychological control and self-concept found in Study 1. Methodologically, examining parent-self-peer linkages between 10 and 15 years old is conservative because peer relationships become paramount and the social aspects of the self become dominant during this period (Rose, Boush and Friestad 1998).



## **CHAPTER FIVE**

### **STUDY 2: TESTING THE CAUSAL DIRECTIONS OF THE MODEL**

#### **5.1 Method**

##### *5.1.1 Sample*

The sample was drawn from the National Longitudinal Survey of Children and Youth (NLSCY), a national study intended to develop policy recommendations and program development on critical factors affecting the development of Canadian children and youth. As such, the NLSCY addressed a broad range of factors, including various biological, social and economic characteristics and risk/preventive factors. The NLSCY began surveying 15,579 households with children between 0 and 11 years of age in 1994/95. These households and their children were followed up regularly at two years intervals. Five follow-ups to date have been completed and the most recent wave was conducted in 2004/05.

Among the 15,579 households assessed in 1994/95, 3,434 families had at least one 10- and 11-year old child. These youngsters were asked to self-complete a questionnaire when they were between 10-11 (Cycle 1), 12-13 (Cycle 2), 14-15 (Cycle 3), 16-17 (Cycle 4), and 18-19 (Cycle 5), and will be followed at two year intervals until they would reach the age of 25. Since the NLSCY did not collect parenting information from adolescents that were older than 15, the eligible respondents for our Study 2 were children aged 10 and 11 years who completed the survey in Cycle 1 and also participated in Cycles 2 and 3. Given that respondents in Study 1 were mainly from middle-class intact families, additional criteria were established to screen the longitudinal sample in order to get a subsample with a profile comparable to that in Study 1: 1) household

income more than \$30,000, with an assumption of an income growth of 4% per year since the end of 1994, 2) intact families, and 3) European descent. Based on these guidelines, a total of 1,316 participants were included in Study 2.

### *5.1.2 Measures*

Parental responsiveness, psychological control, and self-esteem were measured in the NLSCY using items similar to these used in Study 1. Because self-construal, self-monitoring and SPI were not assessed in the NLSCY, only parenting dimensions (i.e., parental responsiveness and psychological control), self-esteem, and RPO were used in this study to verify the parent-self-peer model.

Two questions from the NLSCY were used jointly to classify adolescents' level of relative peer orientation (high vs. low). In the first question, adolescents were asked to indicate whether they had anyone else other than their close friends they could talk to about their personal problems. If the answer was "yes," they were asked to choose from a list of 14 alternatives they would like talk to if they were having a personal problem (of these, 4 are parents or caregivers, and 10 are noncaregiving adults or a sibling). Answers to these two questions were coded as follows: adolescents who chose to talk only to friends but not to parents regarding personal problems were classified as 1, highly peer-oriented; adolescents who chose to talk to both friends and a parent or a caregiver were classified as 0, lowly peer-oriented.

## **5.2 Analysis and Results**

### *5.2.1 Examining Parent-self-peer linkages within the NLSCY National Sample*

As parent-peer linkages were sensitive to the age of respondents (Berndt 1979; Steinberg and Silverberg 1986), only the Cycle 3 data ( $N = 1,316$ ,  $M_{\text{age}} = 14.5$  years),

which had a profile comparable to our Study 1 sample, was used to examine the relationships among parenting dimensions, self-esteem, and RPO. An investigation into the patterns of estimates (see Table 5-1) showed a perfect replication of what we obtained in Study 1. Specifically, RPO was found to be significantly associated with both responsiveness (-.109,  $p < .05$ ) and psychological control (.061,  $p < .05$ ), providing strong support for our assumption that parenting dimensions would have a direct impact on peer relationships. In addition to the direct effects, responsiveness also had mediated effects on RPO via self-esteem (responsiveness  $\rightarrow$  self-esteem: .195,  $p < .05$ ; self-esteem  $\rightarrow$  RPO: -.118,  $p < .05$ ). Therefore, H3 was strongly substantiated. Psychological control, nevertheless, was not found to be significantly linked to self-esteem (-.057,  $p > .10$ ); hence, H4 was not upheld by the Cycle 3 data.

**TABLE 5-1**  
**Results of Invariance Tests of the NLSCY Data**

Causal Paths in the Parent-Self-Peer Model <sup>a</sup>	Unstandardized $\beta$ values			Chi-square (p-value) <sup>b</sup>
	Cycle 1 (10-11)	Cycle 2 (12-13)	Cycle 3 (14-15)	
RES $\rightarrow$ ESTEEM	.381*	.226*	.195*	8.54 (.014)
RES $\rightarrow$ RPO	-.165*	-.126*	-.109*	2.46 (.292)
PSY $\rightarrow$ ESTEEM	-.139*	-.081*	-.057	4.61 (.010)
PSY $\rightarrow$ RPO	-.034	.046*	.061*	4.73 (.094)
ESTEEM $\rightarrow$ RPO	-.089	-.099*	-.118*	0.21 (.90)
<b>Fit Indices</b>	Loglikelihood = -3666.9, df = 11 AIC = 7355.7 BIC = 7402.1	Loglikelihood = -1831.3, df = 11 AIC = 3684.6 BIC = 3722.2	Loglikelihood = -3960.6, df = 11 AIC = 27996.3 BIC = 28133.3	

\* This causal path is statistically significant ( $p < .05$ ).

<sup>a</sup> RES = Responsiveness, PSY = Psychological control, ESTEEM = Self-esteem, RPO = Relative peer orientation.

<sup>b</sup> Small p-values ( $p < .10$ ) indicated significant difference in the causal path across three waves of the data.

### 5.2.2 Examining the Effects of Psychological Control over Time

The non-significant path between psychological control and self-esteem found in both Studies 1 and 2 seemed to suggest that during adolescence, the effects of psychological control on self-esteem were curtailed. At this age, psychological control exerts a direct influence on adolescents' peer relationships instead of having a mediated influence on their peer orientation by affecting their self-concept. This speculation, although convincing, has thus far never been empirically tested by previous researchers. In this research, we examined this conjecture through a two-stage analysis of the three-wave longitudinal data (N = 1,316). The first stage involved an analysis of the three-wave data separately by examining the proposed parent-self-peer linkages in each cycle. In the second stage, we used nested chi-square tests to compare two models, one in which the effects of psychological control were freely estimated in each wave and the other in which the effects of psychological control were constrained to be equal across three waves. A significant chi-square difference would indicate that the effects of psychological control were different across the three waves.

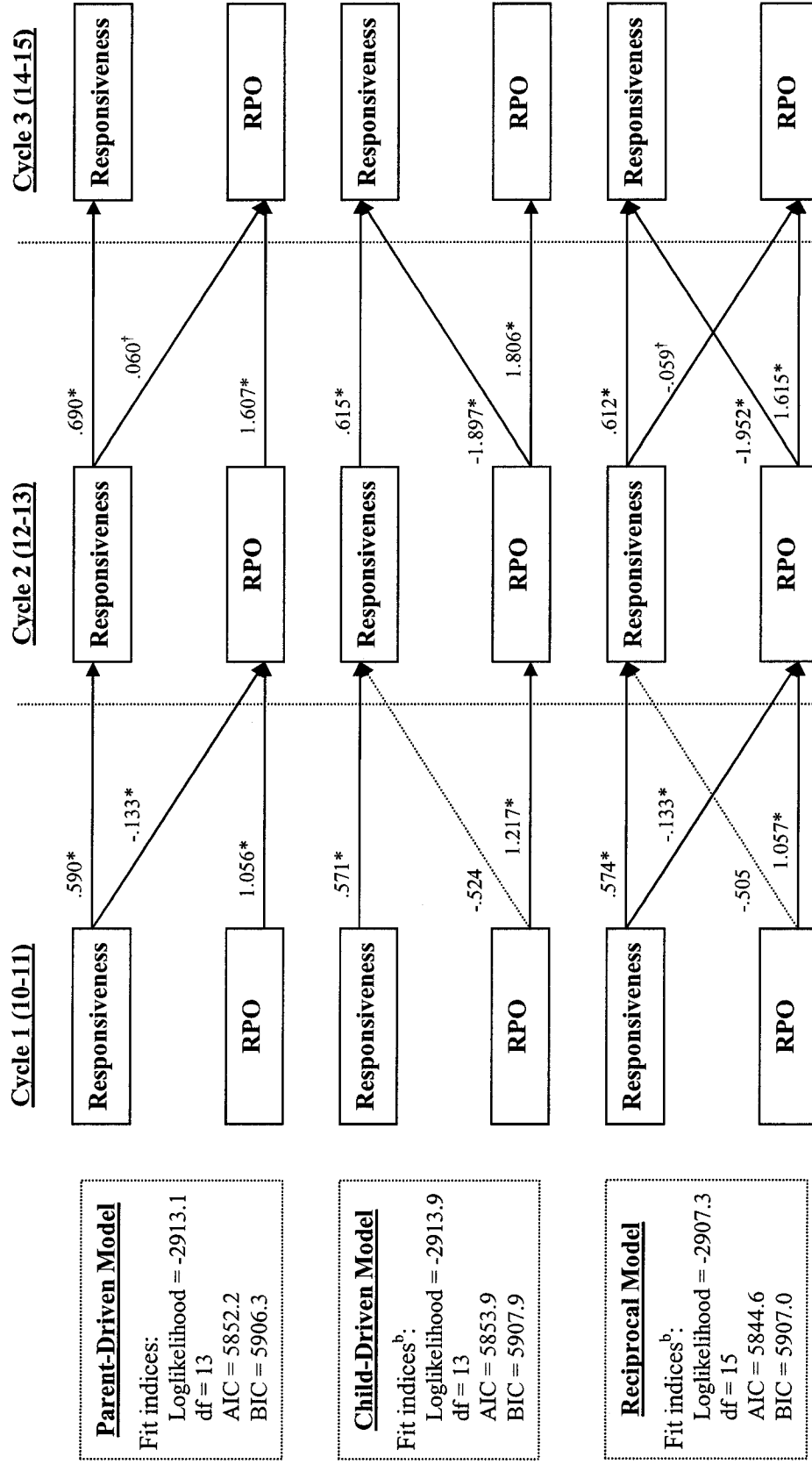
As expected, the effects of psychological control on self-esteem were found to decline over time (Cycle 1:  $-.139$ ,  $p < .05$ ; Cycle 2:  $-.081$ ,  $p < .05$ ; Cycle 3:  $-.057$ ,  $p > .05$ ), whereas the strengths of the link between psychological control and RPO increased simultaneously during this four-year period (Cycle 1:  $-.034$ ,  $p > .10$ ; Cycle 2:  $.046$ ,  $p < .05$ ; Cycle 3:  $.061$ ,  $p < .05$ ). Constraining the effects of psychological control to be equivalent across three waves resulted in a significant decrease in the overall fit of the models that examined the relations between psychological control and self-esteem [ $\chi^2(2, N=1,316) = 4.61$ ,  $p < .10$ ] and between psychological control and RPO [ $\chi^2(2, N=1,316) = 4.73$ ,  $p < .10$ ], indicating that the effects of psychological control were not of equal

magnitude over time. A *post hoc* analysis revealed that significant differences existed between Cycle 1 and Cycle 3. These results not only supported our proposition that the impact of psychological control on self-esteem is lower at adolescence than in childhood, but also substantiated our anticipation that the effects of psychological control on peer relationships are higher over time.

### *5.2.3 Examining the Causal Directions in the Parent-Self-Peer Relationship*

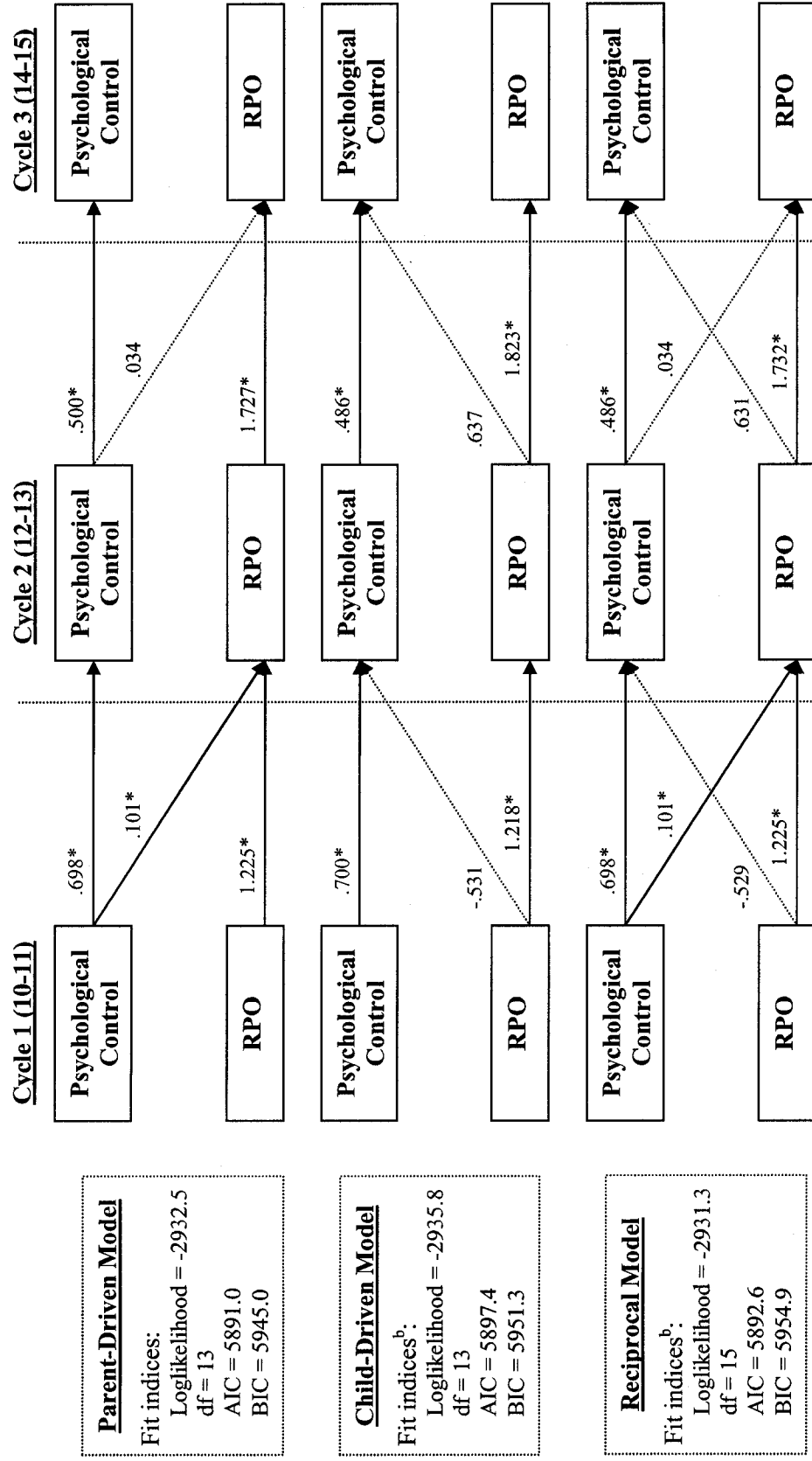
To investigate the causal directions in the relationships between parenting dimensions and RPO within a multivariate framework, we used covariance structural modeling with manifest variables across three waves of the NLSCY data. Following Stice and Barrera's (1995) procedures, the effects of responsiveness and psychological control were analyzed in separate models. To be more specific, for each parenting dimension, we specified three models to examine the causal directions in parent-peer linkages: the parent-driven model, the child-driven model, and the reciprocal model, as shown in Figure 5-1 and Figure 5-2, respectively. The rationale behind using separate model, rather than including both parenting dimensions in the same model, was that if both parenting variables were included in a model simultaneously, the effects of each would be biased low due to the shared variance between these two parenting measures (the correlation was about .43 for the NLSCY). In contrast, the cross-lags manifesting the effects of RPO on parenting dimensions would not be so attenuated.

**FIGURE 5-1**  
**The Relations between Parental Responsiveness and Relative Peer Orientation (RPO)**



*Note:*  
 a. Values associated with each path are unstandardized regression coefficients. \* and a † indicated causal paths significant at  $p < .05$  and at  $p < .10$ , respectively.  
 Dashed lines were insignificant paths ( $p > .10$ ).  
 b. A well-fitting model has a small value for loglikelihood, AIC and BIC (Hair et al. 1998)

**FIGURE 5-2**  
**The Relations between Psychological Control and Relative Peer Orientation (RPO)**



*Note:*  
 a. Values associated with each path are unstandardized regression coefficients. A \* and a † indicated causal paths significant at  $p < .05$  and at  $p < .10$ , respectively.  
 b. Dashed lines were insignificant paths ( $p > .10$ ).  
 c. A well-fitting model has a small value for loglikelihood, AIC and BIC (Hair et al. 1998)

In the parent-driven model, the parental dimension (i.e., responsiveness or psychological control) was specified as the antecedent variable of RPO between adjacent cycles. Significant cross-lags indicated that parenting strategies drive adolescents' peer orientation tendency. A child-driven model was derived by imposing between-time RPO on parenting behaviors. This model asserts that it is adolescents' RPO that elicits parental reactions. Finally, a reciprocal effects model was formed by including all possible cross-lags between RPO and the parenting dimension at adjacent cycles. To avoid misspecification of the models, all three models also included stability coefficients between adjacent cycles from each factor over time. According to Hair et al. (1998), the best-fitting model was determined through  $\chi^2$  tests among these three models.

As indicated in Figure 5-1, when the causality between responsiveness and RPO was examined, the reciprocal model was better than both the child-driven model [ $\chi_d^2(2, N=1,316) = 6.6, p < .05$ ] and the parent-driven model [ $\chi_d^2(2, N=1,316) = 5.8, p < .10$ ]. However, a closer look at the reciprocal model showed that two of the three significant cross-lags were in the direction from responsiveness to RPO and the only path opposite to this pattern was between Cycle 2 RPO and Cycle 3 responsiveness. A similar phenomenon was observed for the link between psychological control and RPO as well. Specifically, based on the model fit indices, the reciprocal model was superior to both the child-driven model [ $\chi_d^2(2, N=1,316) = 4.5, p > .10$ ] and the parent-driven model [ $\chi_d^2(2, N=1,316) = 1.2, p > .10$ ]. Yet, none of the significant cross-lags was from RPO to psychological control. These results, along with the fact that the child-driven models had the poorest fit indices among the three, led us to conclude that the causal directions in parent-peer linkages are more likely from parenting to peer influence than conversely.



### **5.3 Discussion**

The objective of Study 2 was threefold: 1) to verify if the results found in Study 1 were robust when a more representative sample of respondents from the middle-class intact families was used, 2) to examine the effects of psychological control on self-esteem and peer influence over time, and 3) to determine the causal directions in the parent-self-peer relationships through a longitudinal analysis. The first goal was fulfilled by analyzing the Cycle 3 (14- to 15-year-olds) of the NLSCY data. The patterns emerged from this sample perfectly replicated the relations among responsiveness, self-esteem, and RPO found in Study 1. Specifically, responsiveness was found to be positively associated with self-esteem, which, in turn, was negatively related to RPO. This finding suggested that certain elements of adolescent self-concept serve as important mechanisms through which parenting dimensions affect peer relationships.

The second objective was accomplished by comparing the magnitudes of the links among psychological control, self-esteem, and RPO across Cycles 1, 2, and 3. Results suggested that the impact of psychological control on self-esteem decreased when participants transitioned from late childhood to adolescence. At the same time, the effects of psychological control on RPO became stronger over time. This finding largely confirmed our speculation that psychological controlling strategies impair the development of self-concept for younger children, but are less likely to affect inner resources or attributes among adolescents. At this age, adolescents may regard their parents' coercive parenting as a signal of rejection and react to such parental behaviors with defiance and rebellion, without necessarily hurting their self-concept.

The third purpose was achieved through a simultaneous modeling of three cycles

of the NLSCY data. The results showed that the child-driven models consistently exhibited poorer goodness-of-fit indices than the parent-driven models. Although the reciprocal models better fitted with the NLSCY data than the parent-driven models, most significant responsiveness-RPO cross-lags were in the direction from responsiveness to RPO and none of the cross-lags from RPO to psychological control was found to be statistically significant ( $p < .10$ ). Combined together, these results suggested that parenting is more likely to be the driving factor for peer influence than conversely. In short, Study 2 not only provides further support for our parent-self-peer framework, but also supplies an additional justification of parenting as the antecedent of peer influence.

Although findings in both Studies 1 and 2 largely supported our proposed parent-self-peer model, we do not really know if the patterns that emerged in the English-Canadian setting can be applied to other societies. As previously discussed, culture provides a critical context in understanding the effectiveness of certain aspects of parenting. In addition, the meaning of self-concept and/or interpersonal influence may differ in different cultures. Despite the importance of culture as a contextual factor, little research has been conducted to examine parent-peer linkages in a cross-cultural setting. Even less research has been carried out to examine the effects of Chinese parenting on the peer relationships of their adolescents. This paucity is somewhat surprising given that previous researchers (e.g, Chen, Rubin and Li 1997; Bush et al. 2002) have focused on Chinese children and adolescents to investigate the impact of parenting dimensions on a variety of developmental factors, such as social competence and academic achievement. To fill this void, in Study 3 we will extend the proposed parent-self-peer paradigm from Canada to mainland China in order to investigate the moderating role of culture on the

proposed relationships among parenting, key elements of self, and SPI.

Several reasons justify our selection of Chinese adolescents in this research. The first one is that the English-Canadian culture and the Chinese culture are quite different in their core values and cultural dimensions. Canada is the prototype of individualistic cultures, whereas China has traditionally represented the collectivistic cultures. The second one is that Chinese adolescents form the largest adolescent population in the world. There are approximately 150 million Chinese adolescents between the ages of 13 and 17 (Statistics China 2005), a number that is almost five times the entire population of Canada. The vast population and unfamiliar market situation in China drive international companies to learn more about this group and adjust their marketing strategies accordingly (Brookes 1998). Despite the fact that the behavior of Chinese consumers is increasingly relevant to the global marketplace, there is a dearth of research that has focused on this group of consumers.

Finally, Chinese adolescents not only have tremendous purchasing power by themselves, but they also exert great influence on family spending. It was found that Chinese teenagers spend over 834 million US dollars every month (People's Daily 2004). Their purchases include snacks, school supplies, toys, game players, clothing, etc. (Guan 2003). In addition to their role as independent consumers, Chinese adolescents also impact many household purchases. They have a 68 percent influence on family spending (McNeal and Yeh 1997), compared to a 40 percent influence that American youths have on similar items (McNeal 1992). A list of family purchases on which Chinese adolescents exercise the most influence includes family health goods, service items, household electrical appliances, photo equipment, computers, and furniture (Guan 2003).

## **CHAPTER SIX**

### **STUDY 3: ROLE OF CULTURE ON PARENT-SELF-PEER LINKAGES**

Parenting, as a profile of the social realities, is rooted in the sociocultural soil. Culture is often considered to be a medium in guiding the direction and trend of parental behaviors (Bornstein 1995). An individualism/collectivism continuum has been identified as a manifestation of a culture's preferences and emphasis on particular goals over others (Cai, Wilson and Drake 2000). The goal of socialization in individualistic cultures is to develop an individual sense of identity and self-sufficiency from family members (Triandis 1995). By contrast, the tasks of socialization in collectivistic cultures are: 1) to help adolescents learn to control individualistic acts and to reduce unique individual characteristics, 2) to develop collectivistic ideology and cooperative skills and behaviors including obedience, conformity and interdependence, and 3) to become an integral part of the larger group and to make contributions to the achievement and welfare of the collective (Chen 2000).

The general social orientation toward collectivism or individualism has great impact on parenting. Relative to their Western counterparts, Chinese parents are less likely to use reasoning and induction in parenting (Chen 2000). They are more controlling and protective in childrearing (Kriger and Kroes 1972; Lin and Fu 1990) and use more high-power strategies such as physical punishment and yelling in teaching adolescents (Kelley and Tseng 1992). Love withdrawal (i.e., threats of abandonment), shaming, and guilt induction seem to be a prevalent part of Chinese children's socialization (Olsen et al. 2002).

In spite of these cultural differences in average usage levels of specific parenting

behaviors, a majority of studies among diverse ethnic groups in both Western and non-Western cultures indicated a support for the universal application of the three parental dimensions<sup>2</sup>: responsiveness, behavioral control, and psychological control (Rohner 1986; Barber 1999; Bush et al. 2002). More importantly, the adaptive meanings of these parenting dimensions in collectivistic cultures are also likely to resemble those found in individualistic cultures (Chen 2000). In particular, research on self-esteem among Chinese adolescents has indicated that autonomy-granting behavior and support/acceptance are positive predictors, whereas excessive or dysfunctional parental control such as punitiveness, emotional rejection, and parental love withdrawal are negative predictors of self-esteem (Cheung and Lau 1985; Lau and Cheung 1987; Bush et al. 2002). A further confirmation of this Western pattern was the positive impact of Chinese parents' responsiveness on the adaptive behavior and emotional adjustment of their youngsters (Chen, Liu and Li 2000), as well as the negative impact of psychological control on their children's peer acceptance, sociability-competence, distinguished studentship and school academic achievement (Chen, Dong and Zhou 1997).

The cross-cultural similarities in parenting effects on the development of youngsters found by previous researchers may be attributed to dramatic changes in China after the Chinese government implemented the "opening policy" in 1978. In recent years, more and more Western values that encourage individualism have been imported into China via the Internet, MNC, and the mass media. These Western-based beliefs and

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<sup>2</sup> We acknowledge that this contention has not been shared by all researchers. Chao (1994), for example, argues that psychological control, which has absolutely adverse effects on North American children, may contain a connotation of "to love or care for" and therefore does not seem to hurt Chinese children that much. In line with her reasoning, Chao and her colleagues (Chao 1994; Chao and Sue 1996) found that the Chinese tend to view parental excessive control as a way to foster family cohesion and diminish interpersonal conflict, rather than an expression of hostility, arbitrariness and distance.

values have challenged Chinese parents' traditional values, hierarchical social structure, and excessive bureaucratic control and pushed them to raise their offspring toward a more individualistic way (e.g., Chen and Lan 1998; Liu 2003). Nevertheless, the pace of such changes among Chinese parents varies according to regions of the country and the education levels of the parents. Specifically, greater tolerance of adolescent independence has been observed in highly educated parents living in urban areas (Sun 2003).

Despite these changes in Chinese parenting behaviors, it is generally believed that Chinese cultural traditions are so firmly entrenched that core values will not undergo rapid changes. Traditional values and ideologies, such as those concerning respect for authority figures and parents, behavioral restraint and compliance, should continue to play a significant role in affecting socialization and child development, due to the enduring and resilient nature of the culture (Ho, Peng and Lai 2001). A study by Wu (1996) lent strong support for this argument. Specifically, Chinese parents from Shanghai, Southern Taiwan, Bangkok, Singapore, Honolulu, and Los Angeles were found to share many basic traditional values and socialization goals, despite varying degrees of geographical and ideological differences.

Based on these research findings, we anticipate that the general pattern of parent-peer linkages will be similar across cultures. In other words, peer relationships in China will be negatively influenced by parental responsiveness but positively affected by psychological control, as we established in Study 1. However, the magnitudes of these relationships, as well as the mechanisms through which parenting affects SPI, are likely to be different between Chinese and English-Canadians, due to the disparity in socialization goals of these two societies. Several hypotheses regarding such differences

will be developed in the next section, followed by a report of findings obtained from the comparison of the Chinese and the English-Canadian samples.

### **6.1 Cultural Differences in the Direct Effects of Psychological Control on SPI**

The strength of the positive relationship between psychological control and SPI is expected to be stronger for English-Canadian adolescents than for Chinese adolescents. Parental psychological control or coercion, when used as socialization practices to obtain conformity and obedience in adolescents, is likely to be accompanied by the use of corporal punishment (Ellis and Petersen 1992), which is marked by verbal and/or physical attempts to control behavior without rational explanations (Rollins and Thomas 1979). In Canada, psychological control is not in line with the socialization goals of the society and usually considered as intrusive (Barber and Harmon 2002). Such parenting practices often elicit intergenerational hostility in the family (Rollins and Thomas 1979), which in turn, leads to resistance to parental influence from adolescents (Kandel 1996; Eccles et al. 1991). As a result, adolescents who perceive their parents as psychologically controlling are more likely to orient themselves toward the opinions of their peers rather than those of their parents (Fuligni and Eccles 1993).

In China, conformity and obedience are used as primary standards against which people are judged (Ho 1994). The old saying “Bang xia chu xiao zi” (a filial son is the product of the rod) is still widely accepted as an effective tool of socialization in the Chinese culture. Certain kinds of psychological controlling behaviors, such as shaming, are deeply accepted by the whole population (including youngsters) as a tool for the goodness of society and of youngsters themselves (Fung 1999). Not only do parents shame their children, but primary schools also use shaming (e.g., group ostracism or

abandonment) as a principal moral training technique to correct the misbehavior of children (Fung 1999; Ho 1986). Growing up in such an environment, Chinese adolescents report less hostile attitudes toward coercive parenting than American adolescents (Leung, Lau and Lam 1998) and are more likely to develop the tendency to conform to authority figures rather than to rebel against them (Dien 1999). As the use of psychological control is more consistent with Chinese than with English-Canadian socialization goals, rebellions caused by psychological control found in Canada are expected to be less severe than those found in China.

H7: The positive impact of parental psychological control on SPI is stronger for English-Canadian adolescents than for Chinese adolescents.

## **6.2 Cultural Differences in the Mediated Effects of Responsiveness on SPI via Interdependent-self**

A general viewpoint shows that at the aggregated level, Chinese people tend to have a higher level of interdependent self-construal (Singelis 1994; Yamada and Singelis 1999). Nevertheless, little is known about which parenting elements contribute to the development of such a cognitive self-concept among Chinese. Based on the extant literature, we propose that the interdependent self is fostered by parental responsiveness. Parents socialize their children and adolescents according to their cultural beliefs and values (Harwood et al. 1999). As the socialization goals of the Chinese society are to train youngsters to get along with others (i.e., group harmony), to conform to the group (i.e., family and society), and to be well-behaved (Triandis 1995), adolescents are likely to be directed by their parents to develop interdependent self-construal that is consistent



with the collectivistic values of the larger society.

However, individuals are not born to voluntarily place the interests of others over their own. Responsive parenting, which fosters positive parent-child relationships (Peterson and Hann 1999), makes the intergenerational transmission of such collectivistic norms from parents to their adolescents easier, especially those emphasizing hierarchy in a society, such as obedience to seniors and conformity to authority figures. In line with this reasoning, it has been found that positive parent-adolescent relationships facilitate the identification of adolescents with parental attitudes, values and role expectations and help them incorporate these attitudes into their own value system (Henry, Wilson and Peterson 1989). According to Bretherton, Golby and Cho (1997), “making parental values one’s own is not the result of identification derived from fear of punishment, but is based on an increasing capacity for self-regulation achieved through the supportive quality of parent-child interactions” (p. 104).

H8: Parental responsiveness negatively affects English-Canadian adolescents’ interdependent self-construal, but positively affects Chinese adolescents’ interdependent self-construal.

With regard to the effects of interdependent self-construal on SPI, we expect such a positive relationship to be stronger for English-Canadian adolescents than for Chinese adolescents. The rationale behind this expectation is based on the significant difference in the adolescent developmental timetables across cultures. While the formulation of autonomous identity is a primary task of adolescence for Western adolescents, Chinese adolescents are expected to have a prolonged period of dependency on their parents. In particular, Chinese youths exhibit behavioral autonomy substantially later than their

Western counterparts (Feldman and Rosenthal 1990; Feldman and Quatman 1988; Rose 1999). English-Canadian adolescents, for example, are expected to decide for themselves on a variety of issues, ranging from consumer choices affecting physical appearance to life decisions such as the choice of a boyfriend/girlfriend, marriage, and career. They are also expected to be responsible for any adverse consequences arising from these decisions. In other words, they are literally “free” to be influenced by their peers because they are supposed to be independent decision-makers for all these issues.

Adolescents in collectivistic cultures, however, are not encouraged to make decisions regarding these life events. According to Confucian teaching, it is even immoral for Chinese adolescents to choose a mate or decide a career path without getting prior consent from their parents. Parents are required to protect, govern, teach and discipline their children and have the last say in their children’s life decisions. As a consequence, when adolescents fail in their life or careers, they are normally not the first person blamed; rather, it is their parents who are required by society to take full responsibility for their failures (Ho 1986). Probably because of this, Chinese parents expect their children to have earlier independence in areas such as task-oriented caretaking activities and academic work, but later in areas such as social and self-initiated tasks (Young 1972). Forced compliance is socially accepted and self-sacrifice in life decisions is expected from a filial person (Dien 1999). In such a collectivistic environment, although Chinese adolescents high in interdependent self-construal are willing to sacrifice their personal goals for the good relationship with others, they are less likely to follow the advice of their peers to do things that they perceive their parents may disapprove of. In other words, their loyalty to their parents is so important to them that

even if their parents are not physically present, their behaviors will remain strongly influenced by them. When facing peer pressures, the strong consideration of both parental preferences and peer relationships will drive Chinese adolescents to take a “middle-road” choice decision in order to maintain harmony with both parents and peers.

H9: The positive impact of interdependent self-construal on SPI is stronger for English-Canadian adolescents than for Chinese adolescents.

### **6.3 Cultural Differences in the Mediated Effects of Responsiveness on SPI via Self-Esteem**

Parental responsiveness was found to positively affect self-esteem among English-Canadian adolescents. This pattern is likely to emerge in the Chinese culture as well. Yet, the strength of this link is expected to be stronger for English-Canadian than for Chinese adolescents. In Western cultures, the development of self is more separate, distinct, and independent of others. Therefore, acceptance and support from parents are sufficient for adolescents to establish a strong positive attitude toward themselves (e.g., Gecas, 1971; Hoelter and Harper 1987; Litovsky and Dusek 1985; Peterson, Southworth and Peters 1983).

On the contrary, the Chinese derive their sense of self and self-esteem from their kinship network (Yang 1981). Their construction of the self emphasizes continuity of family, societal roles, supremacy of hierarchical relationships, compliance with authority and maintenance of stability (Pratt 1991). Although parental interactions are an important contributor to their self-worth, parent-adolescent ties do not account for all social relationships that adolescents use to assess themselves. In other words, while positive

feedback from parents can enhance their self-image (Cheung and Lau 1985; Lau and Cheung 1987; Bush et al. 2002), their self-esteem is also influenced by other social contacts. Due to the complex collective attributes involved in this self-evaluation process, it is more difficult for Chinese adolescents to precisely evaluate themselves than for their Western counterparts. In this situation, Chinese people tend to devalue rather than overvalue their levels of self-esteem, because self-effacement and modesty are highly valued in Chinese society (Brand 2004). Consistent with this reasoning, past research has shown that Chinese adolescents appear to show lower levels of self-esteem than American teenagers (Shen 1989). Such a general propensity to devalue self-esteem should deflate the magnitude of the relationship between responsiveness and self-esteem among Chinese adolescents. Therefore,

H10: The positive impact of parental responsiveness on self-esteem is stronger for English-Canadian adolescents than for Chinese adolescents.

Regarding the negative relationship between self-esteem and SPI, we anticipate that the strength of this link is stronger for English-Canadian adolescents than for Chinese adolescents. When receiving negative feedback about themselves (i.e., a threat to self), Westerners with a higher level of self-esteem are more likely to engage in self-esteem reparation at a personal level to reaffirm the self's favorable, individualistic qualities (Leary and Baumeister 2000; Leary et al. 1995). A normally used strategy is to over-evaluate their own intelligence and degrade the intelligence of others (Beauregard and Dunning 1998). Such an enhanced feeling of self-competence serves as an inner resource for English-Canadians to reject the opinions of others that are different from

their own.

By contrast, when facing peer pressures, high self-esteem Chinese adolescents are less likely to use such a self-protection strategy; instead, their self-esteem reparation may involve affirming the self through relationships, a similar pattern as their low self-esteem counterparts. According to the Confucian's moralistic conception of the self, the true meaning of self is attained by sacrificing the "little me" to complete the "big me" (Dien 1983). The use of the self-protection strategy to highlight the "little me" is normally considered as selfish and socially unacceptable. Chinese society emphasizes maintaining harmony and following group norms and expectations; hence, the expression of collective attributes of self (i.e., conformity, obedience, and interdependence) is more likely to be valued. Private sense of social-worth in this context is facilitated through the reflected actions and appraisals of others (Tafarodi, Lang and Smith 1999; Tafarodi and Swann 1995, 1996). Therefore, although high self-esteem adolescents do see their own decisions better than their peers', the tendency to maintain harmony may drive them to integrate the opinions of their peers into their purchasing decisions. Peer pressure in this case may heighten their awareness of the dynamic nature of relationships and alert them to pay attention to relationship concord.

H11: The negative impact of self-esteem on SPI is stronger for English-Canadian adolescents than for Chinese adolescents.

## **6.4 Method**

### *6.4.1 Sample*

A Chinese version of the questionnaire was generated based on the English version used in Study 1. The back translation method, in which the survey was first

translated from English to Chinese and then back again to English, was applied to ensure the idiomatic equivalence of these two versions. Similar to Study 1, we pre-tested the self-administered questionnaire with eight Chinese families to ensure clarity, comprehension and ease of completion. Data collection was conducted with the help of school principals in these six cities. Following the same procedures as in Study 1, teachers of these schools handed out the packages to their students in class. Students completed their surveys at school and brought home two parental surveys for their parents to fill out. Completed parental questionnaires were brought back to the school by the students in the following week. As an incentive, a ¥30 cash reward was given to the school for each set of family triadic data. This money was to benefit the students in whatever way the school saw fit.

Participants consisted of 1,142 adolescents, along with their parents, from six cities in mainland China. Two cities (Nanchang, N = 127; Anyi, N = 130) were located in the South, two (Shijiazhuang, N = 210; Tangshan, N = 193) in the North, and another two (Xuyi, N = 349; Baoying, N = 133) in the central part of China. Analysis of basic demographic information suggested that the sample was representative of the Chinese adolescent population in terms of gender (54% females and 46% males) and age ( $M_{\text{age}} = 15.3$ , ranging from 13 to 17 years). Parental education varied from less than a high school degree to those who had completed college and graduate school. 19% of fathers and 10.2% of mothers had attended or completed college. 96% of the participating fathers in our sample had a level of education that was equal to or greater than their wives.

To examine the possible regional effects in our data, MANOVA was first conducted to test the potential differences in the mean level of parenting dimensions, self-

concept, and SPI across the six cities where the data were collected. The results of MANOVA indicated an equivalence of adolescents' reported parental responsiveness and behavioral control among the six cities; however, significant territorial effects were found in the average levels of psychological control [ $F(5,1136) = 3.41, p < .05$ ], interdependent self-construal [ $F(5,1136) = 2.29, p < .05$ ], self-esteem [ $F(5,1136) = 8.80, p < .05$ ], self-monitoring [ $F(5,1136) = 3.61, p < .05$ ], and SPI [ $F(5,1136) = 11.27, p < .05$ ].

As English-Canadian respondents in Study 1 were mainly recruited from middle-class families, the level of parental education was used as a screening variable to get a subsample of Chinese adolescents with a family profile similar to the Canadian profile. Previous parenting studies have shown that parental education is not only the most important single factor that affects the socialization attitudes of Chinese parents (Bond 1991; Ho 1989), but also a good indicator of family SES (e.g., Dornbusch et al. 1987; Steinberg et al. 1992). A general contention is that highly educated Chinese parents, relative to lowly educated parents, are more likely to adopt individualistic cultural values and tolerate their children's independence (Sun 2003). Furthermore, higher levels of education tend to create more opportunities for parents to succeed in the society and develop financial advantages (cf. Steinberg et al. 1992). This is especially true for the Chinese, because the old saying "Wan ban jie xia pin, wei you du shu gao" (The worth of other pursuits is small, and the study of books excels them all) has been hammered into their heads for 2,000 years.

Based on parental educational levels, the 1,142 participant families were classified into three groups (low-education,  $N=399$ : neither of the parents completed a high school; middle-education,  $N=527$ : at least one of the parents completed a high

school education or an equivalent degree; high-education, N=216: at least one of the parents completed college or a higher degree). Consistent with our expectations, the high-education group, in comparison with both low- and medium-education groups, had more household income [ $F(2,1010) = 37.7, p < .05$ ] and reported a lower level of interdependent self-construal [ $F(2,1078) = 6.36, p < .05$ ]. Other than these two variables, there was no significant cross-city difference in the mean levels of the rest of focal factors within each group.

To examine the moderating effects of culture on parent-self-peer linkages, the high-education group of the Chinese data, rather than the full sample or any other groups, was used to compare with the English-Canadian sample to test our hypotheses. Two reasons substantiated our approach. First, the use of a subsample of Chinese respondents would reduce the difference in sample size across the English-Canadian and the Chinese samples. According to Kaplan and George (1995), the inequality of sample size increases the likelihood of making Type II errors in invariance tests. Second, compared with the other two groups, the high-education group had the most comparable profile to the English-Canadian sample, in terms of parental education, household income and self-construal. Therefore, testing our hypotheses with such a subsample will produce conservative results.

## **6.5 Analyses and Results**

### *6.5.1 Initial analyses*

To make meaningful comparisons across the English-Canadian and the Chinese groups, we should have an identical factor structure that was psychometrically sound in each sample. For this purpose, we imposed the factor structure obtained from the



Canadian data in Study 1 on the Chinese subsample. The results provided seven distinct factors (i.e., three *a priori* parenting dimensions, three aspects of self, and SPI), jointly explaining 69.9% variance of the Chinese data. As shown in Table 6-1, all the extracted factors, except for interdependent self-construal, had strong reliabilities, with all Cronbach's alphas equal to or greater than the 0.70 threshold (Nunnally 1978).

A series of analyses were performed via the EQS program in order to test if the proposed parent-self-peer framework was invariant across the English-Canadian and the Chinese groups. Prior to model invariance tests across groups, it was customary to first establish separate baseline models for each group. Subsequently, two additional levels of constraints (i.e., measurement and structural) were introduced to test their equality simultaneously.

#### *6.5.2 Comparing the English-Canadian and the Chinese Baseline Models*

Following the procedure recommended by Byrne (1994), two baseline structural models were tested, one for the English-Canadians (N = 109) and the other for the Chinese (N = 216). These models, along with corresponding fit indices and standardized parameter estimates, were depicted in Figure 4-1 and Figure 6-1, respectively. The overall goodness-of-fit was excellent for both the English-Canadian model ( $\chi^2/df = 1.25$  and CFI = .944) and the Chinese model ( $\chi^2/df = 1.26$  and CFI = .940). By and large, the standardized results of these models were very good, with all measurement model paths being significant for both groups.

**TABLE 6-1**  
**Results of the Exploratory Factor Analysis for the Chinese Data**

Measure/Item	Cronbach Alpha
<b>Parental Responsiveness (RES)<sup>a</sup></b> 1. My parents take my ideas seriously, when making family decisions. 2. My parents talk it over and reason with me when I misbehave. 3. My parents respect my opinion and encourage me to express it. 4. My parents praise me if I do things well.	.83
<b>Parental Behavioral Control (BEH)<sup>a</sup></b> 1. My parents want to know exactly where I go at night. 2. My parents want to know what I do with my free time. 3. My parents want to know who my friends are.	.70
<b>Parental Psychological Control (PSY)<sup>a</sup></b> 1. My parents will not talk to me when I have displeased them 2. My parents avoid looking at me when I have disappointed them.	.73
<b>Self-Esteem (ESTEEM)<sup>a</sup></b> 1. In general, I like the way I am. 2. Overall I have a lot to be proud of. 3. I feel that I have a number of good qualities. 4. In general, I feel satisfied with myself.	.75
<b>Interdependent Self-Construal (DEPEN)<sup>a</sup></b> 1. It is important to me to follow the decisions made by the group. 2. Even when I strongly disagree with group members, I avoid an argument. 3. I will stay in a group if they need me, even when I am not happy with the group. 4. I go along with what others want to do, even when I would rather do something different.	.65
<b>Self-Monitoring (SMONI)<sup>a</sup></b> 1. I guess I could put on a show to impress or entertain others. 2. At parties, I try to do or say things that other will like. 3. I can trick people by being friendly when I really dislike them. 4. I am not always the person I appear to be.	.71
<b>Susceptibility to Peer Influence (SPI)<sup>a</sup></b> 1. I would like to purchase products and brands my friends will approve of. 2. To maintain a good relationship with friends, I often purchase the same products or brands they purchase. 3. It is important that others like the products and brands I buy. 4. I feel that the purchase or use of a particular brand will enhance my image. 5. If I want to be like someone, I often buy the same products or brands they buy.	.72

<sup>a</sup> Response scale for these items was as follows: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*.

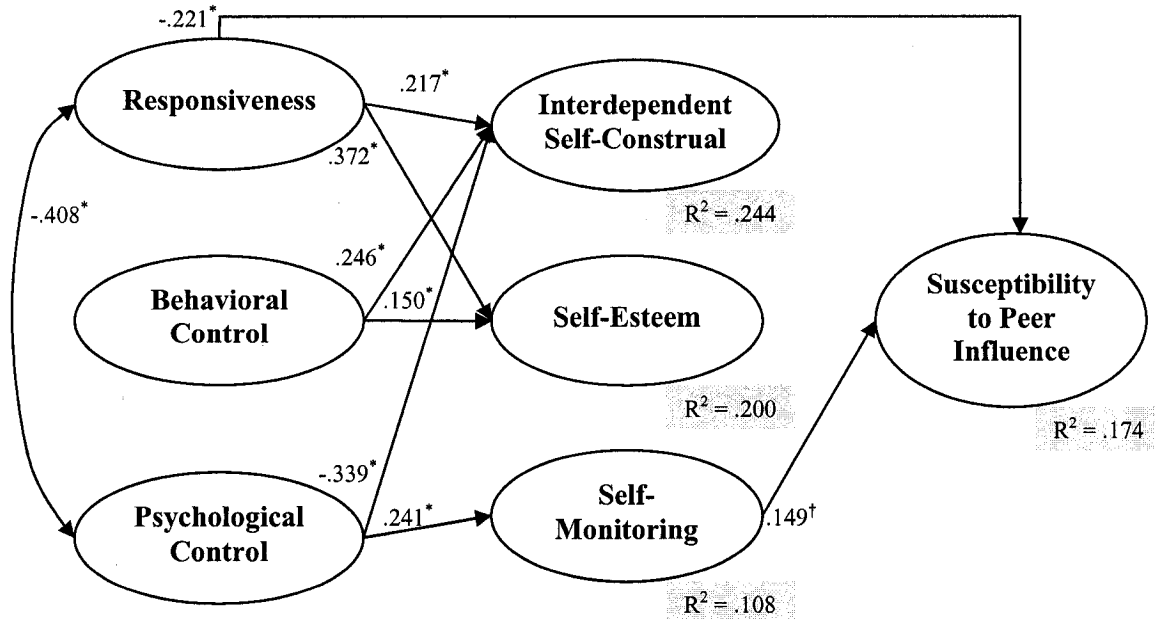
<sup>b</sup> Response scale for these items was as follows: 1 = *never*, 2 = *seldom*, 3 = *sometimes*, 4 = *often*, and 5 = *very often*. A sum of these 5 items was used as the measure of extreme social behaviors.

A close look at these two baseline models indicated that there were some similarities and differences in the parent-self-peer linkages across the English-Canadian and the Chinese models. First of all, a similar trend of parent-peer interconnections was

found in both groups, as there appeared to be a positive influence of psychological control on SPI and a negative influence of responsiveness on it for the Chinese as well. However, the strengths of the estimates were disparate across these two models. For the English-Canadians (see Figure 4-1), a significant association was found between SPI and psychological control (.327,  $p < .05$ ), but the link between SPI and responsiveness did not reach the significant level (-.065,  $p > .10$ ). By contrast, for the Chinese (see Figure 6-1), SPI was not significantly associated with psychological control (.045,  $p > .10$ ); yet, the connection between SPI and responsiveness was statistically significant (-.221,  $p < .05$ ). These cross-cultural differences suggested that psychological control had a stronger influence on Canadians' SPI, whereas responsiveness tended to exert greater impact on Chinese' SPI.

Second, the mediated effects of parental responsiveness on SPI were also not the same across these two groups. In the English-Canadian model, it was found that the impact of parental responsiveness on SPI was fully mediated by their interdependent self-construal, self-esteem, and self-monitoring; thus providing strong support for H1, H3, and H5, respectively. Nonetheless, there was a different story for the Chinese. As presented in Figure 6-1, although responsiveness was significantly associated with Chinese adolescents' interdependent self-construal (.217,  $p < .05$ ) and self-esteem (.372,  $p < .05$ ), the paths from interdependent self-construal to SPI (-.083,  $p > .10$ ) and from self-esteem to SPI (.142,  $p > .10$ ) were not statistically significant; consequently, H1 and H3 were not supported. Moreover, the link between responsiveness and self-monitoring did not reach the significant level (.024,  $p > .10$ ) either, and therefore H5 was not sustained by our Chinese data.

**FIGURE 6-1**  
**Results<sup>a</sup> of the Parent-Self-Peer Model for the Chinese**



**Fit Indices<sup>b</sup>:**  
 $\chi^2$  (N = 216) = 268.9, df = 213,  $\chi^2/df$  = 1.26, p = .001, CFI = .940, RMSEA = .048

Note:

- All paths among parenting dimensions, self-concept, and peer influence were estimated, but only significant paths (\*, p < .05; †, p < .10) are displayed. Values associated with each path are standardized regression coefficients.
- The cutoff values suggested for an adequate fit are: standardized  $\chi^2$  ( $\chi^2/df$ ) values smaller than 5 (Taylor & Todd 1995), comparative fit index (CFI) greater than 0.90 (Bentler 1992), and the root mean square error of approximation (RMSEA) smaller than .06 (Browne and Cudeck 1989).

Lastly, the mediated effects of psychological control on SPI were dissimilar cross-culturally. For the English-Canadians, psychological control was not found to be significantly related to interdependent self-construal, self-esteem, or self-monitoring. Hence, H2, H4, and H6 were not maintained by the English-Canadian model. Nevertheless, psychological control resulted in unique effects on Chinese adolescents. In the Chinese model, psychological control was significantly associated with interdependent self-construal (-.339, p < .05) and self-monitoring (.241, p < .05). As the relationship between self-monitoring and SPI was also significant (.149, p < .10), H6 was

upheld. Conversely, no significant association was found on the links between SPI and interdependent self-construal ( $-.083, p > .10$ ) or between psychological control and self-esteem ( $.095, p > .10$ ); therefore, H2 and H4 were not substantiated by our Chinese data.

### *6.5.3 Testing hypotheses 7 to 11*

In hypotheses 7 to 11, it was anticipated that the strengths of the parent-self-peer linkages would be different across the English-Canadian and the Chinese groups in the following aspects: a) H7: psychological control  $\rightarrow$  SPI, b) H8: responsiveness  $\rightarrow$  interdependent self-construal, c) H9: interdependent self-construal  $\rightarrow$  SPI, d) H10: responsiveness  $\rightarrow$  self-esteem, and e) H11: self-esteem  $\rightarrow$  SPI. The preliminary results of the baseline-model comparisons seemed to be in line with these hypotheses. This conclusion, however, might be misleading since we did not know if the Canadian and the Chinese adolescents perceived the indicators in the same way. If no sufficient evidence supports measures' invariance, conclusions drawn from these scales are not trustworthy (Steenkamp and Baumgartner 1998). Therefore, we conducted invariance tests to examine the equivalence of the measurement model across the Canadian and Chinese groups before testing the hypothesized moderating effects of culture on parent-self-peer linkages.

Following Byrne's (1994) approach, we first introduced measurement-level constraints (i.e., configural invariance, metric invariance, factor covariance invariance, and error variance invariance) to test the equality across the Canadian model and the Chinese model simultaneously. After the measures' invariance was established, the structural level constraints (i.e., causal path invariance) were then imposed to test hypotheses 7 to 11.

Model 1: *Configural Invariance*. The factor loadings matrix ( $\Lambda$ ), the factor covariance matrix ( $\Phi$ ), and the error variance matrix ( $\Theta$ ) are all of the same order, but freely estimated without restriction in each of the two groups.

Model 2: *Metric Invariance*.  $\Lambda(\text{Canadians}) = \Lambda(\text{Chinese})$ , but  $\Phi$  and  $\Theta$  are freely estimated without restriction in each of the two groups.

Model 3: *Factor Covariance Invariance*.  $\Phi(\text{Canadians}) = \Phi(\text{Chinese})$ , but  $\Lambda$  and  $\Theta$  are freely estimated without restriction in each of the two groups.

Model 4: *Error Variance Invariance*.  $\Theta(\text{Canadians}) = \Theta(\text{Chinese})$ , but  $\Lambda$  and  $\Phi$  are freely estimated without restriction in each of the two groups.

Model 5: *Models 2 and 3*.  $\Lambda(\text{Canadians}) = \Lambda(\text{Chinese})$ , and  $\Phi(\text{Canadians}) = \Phi(\text{Chinese})$ , but  $\Theta$  is freely estimated without restriction in each of the two groups.

Model 6: *Models 2 and 4*.  $\Lambda(\text{Canadians}) = \Lambda(\text{Chinese})$ , and  $\Theta(\text{Canadians}) = \Theta(\text{Chinese})$ , but  $\Phi$  is freely estimated without restriction in each of the two groups.

Model 7: *Models 2, 3 and 4*.  $\Lambda(\text{Canadians}) = \Lambda(\text{Chinese})$ ,  $\Phi(\text{Canadians}) = \Phi(\text{Chinese})$ , and  $\Theta(\text{Canadians}) = \Theta(\text{Chinese})$ .

The results were summarized in Table 6-2. Given that Model 1 was the least restrictive among the seven, Models 2-7 which contained different sets of constraints were nested in Model 1.  $\chi^2$  difference tests were used to identify the best model that could represent common measurement properties for the two groups. As indicated in Table 6-2, Model 2, 3, and 5 were not significantly different from the baseline:  $\chi_d^2(13) = 19.48$ ,  $p = .11$ ;  $\chi_d^2(3) = 4.25$ ,  $p = .24$ ;  $\chi_d^2(16) = 25.24$ ,  $p = .07$ , respectively. Among these three models, Model 5 was nested in Model 2 and Model 3. Additional model comparisons presented no significant  $\chi^2$  difference between Model 2 and Model 3 [ $\chi_d^2(10) = 15.23$ ,  $p$

= .12], Model 2 and Model 5 [ $\chi^2(3) = 5.76, p = .12$ ], or between Model 3 and Model 5 [ $\chi^2(13) = 20.99, p = .07$ ]. Taken together, Model 5, which hypothesized both metric invariance and factor covariance invariance, best represented the common measurement properties for the two groups, lending strong support that these seven factors in our parent-self-peer model had at least the same factor patterns, factor structure, and factor covariances across the two samples. The measurement invariance model fitted the data very well, with  $\chi^2(398) = 544.75, p < .001; \chi^2/df = 1.37; CFI = .92$ .

**TABLE 6-2**  
**Results of Multisample CFA**

Models	Goodness-of-Fit Indices			
	$\chi^2$	df	p-value	CFI
M1: Configural Invariance	519.51	382	.000	.93
M2: $\Lambda(\text{Canadians}) = \Lambda(\text{Chinese})$	538.99	395	.000	.92
M3: $\Phi(\text{Canadians}) = \Phi(\text{Chinese})$	523.76	385	.000	.92
M4: $\Theta(\text{Canadians}) = \Theta(\text{Chinese})$	654.54	407	.000	.88
M5: $\Lambda(\text{Canadians}) = \Lambda(\text{Chinese})$ $\Phi(\text{Canadians}) = \Phi(\text{Chinese})$	544.75	398	.000	.92
M6: $\Lambda(\text{Canadians}) = \Lambda(\text{Chinese})$ $\Theta(\text{Canadians}) = \Theta(\text{Chinese})$	694.05	420	.000	.86
M7: $\Lambda(\text{Canadians}) = \Lambda(\text{Chinese})$ $\Phi(\text{Canadians}) = \Phi(\text{Chinese})$ $\Theta(\text{Canadians}) = \Theta(\text{Chinese})$	700.52	423	.000	.85
Model Comparisons	Difference in			
	$\chi^2$	df	p-value	
M2 vs. M1	19.48	13	.11	
M3 vs. M1	4.25	3	.24	
M4 vs. M1	135.03	25	.00	
M5 vs. M1	25.24	16	.07	
M6 vs. M1	174.54	38	.00	
M7 vs. M1	181.01	41	.00	
M2 vs. M3	15.23	10	.12	
M2 vs. M5	5.76	3	.12	
M3 vs. M5	20.99	13	.07	

To test H7 to H11, we conducted a multiple-group analysis using the EQS program, where we tested the equality of both measurement and structural paths across cultures, by imposing equality constraints on parameters of the Canadian and Chinese

models (Byrne 1994). As shown in Table 6-3, the results suggested that all of the hypothesized causal paths were noninvariant between the Canadian and Chinese models: (1) the path between psychological control and SPI ( $\chi^2 = 2.89, p < .10$ ), (2) the path between responsiveness and interdependent self ( $\chi^2 = 19.39, p < .05$ ), (3) the path between interdependent self and SPI ( $\chi^2 = 8.11, p < .05$ ), (4) the path between responsiveness and self-esteem ( $\chi^2 = 2.87, p < .10$ ), and (5) the path between self-esteem and SPI ( $\chi^2 = 7.16, p < .05$ ). Therefore, H7, H8, H9, H10, and H11 were supported.

**TABLE 6-3**  
**Invariance of Paths between the Canadian and Chinese Models**

<b>Causal Paths in the Parent-Self-Peer Model<sup>a</sup></b>	<b>Canadians (N = 109)</b>	<b>Chinese (N = 216)</b>	<b>Chi-square</b>	<b>p-value</b>
<b>Parent → Peer</b>				
RES → SPI	-.065	-.221*	1.13	.29
PSY → SPI	.327*	.045	2.89	.09
BEH → SPI	.049	.131	.52	.47
<b>Parent → Self</b>				
RES → DEPEN (H1)	-.282*	.217*	19.39	.00
PSY → DEPEN (H2)	.088	-.339*	14.13	.00
RES → ESTEEM (H3)	.578*	.372*	2.87	.09
PSY → ESTEEM (H4)	.030	.095	.22	.64
RES → SMONI (H5)	-.312*	.024	2.55	.11
PSY → SMONI (H6)	-.037	.241*	2.17	.14
BEH → ESTEEM	.106	.150*	.31	.58
BEH → DEPEN	.099	.246*	.94	.33
BEH → SMONI	-.144	-.065	.40	.53
<b>Self → Peer</b>				
ESTEEM → SPI	-.236 <sup>†</sup>	.142	7.16	.01
DEPEN → SPI	.347*	-.083	8.11	.00
SMONI → SPI	.365*	.149 <sup>†</sup>	2.19	.14

**Fit indices<sup>b</sup> of the invariance test**

$\chi^2 = 558.3, df = 413, \chi^2/df = 1.35, p = .000, CFI = .933$

<sup>a</sup> RES = Responsiveness, PSY = Psychological control, BEH = Parental behavioral control, ESTEEM = Self-esteem, DEPEN = Interdependent self-construal, SMONI = Self-monitoring, SPI = Susceptibility to peer influence.

<sup>b</sup> The cutoff values suggested for an adequate fit are: standardized  $\chi^2$  ( $\chi^2/df$ ) values smaller than 5 (Taylor & Todd 1995) and comparative fit index (CFI) greater than 0.90 (Bentler 1992).



An unanticipated but significant cross-cultural difference also emerged from our data. Specifically, psychological control was found to be negatively associated with interdependent self-construal for Chinese adolescents, but not for English-Canadian adolescents. The results of an invariance test showed that such a difference was statistically significant ( $\chi^2 = 14.13, p < .05$ ). This finding was somewhat surprising given that psychological control is relatively consistent with the socialization goals of Chinese society. Since our results also supported H7, which states that the direct impact of psychological control on SPI is weaker for the Chinese than for the Canadians, it seems that Chinese adolescents with well-educated parents may respond to coercive parenting through developing more self-reliance and individual responsibility, rather than relying on peers. This may be due to the high level of tolerance exhibited by their well-educated parents to their independence (Sun 2003). Such psychological controlling practices, however, still impair parent-adolescent relationships and generate psychological distance between parents and adolescents, which, in turn, makes the intergenerational transmission of the collectivistic norms less effective in these families.

## **6.6 Discussion**

The purpose of Study 3 was to investigate the moderating effects of culture on our proposed parent-self-peer linkages. Using a subsample selected from 1,142 Chinese families, we conducted invariance tests to examine the hypothesized differences across Chinese adolescents and English-Canadian adolescents. Even if our Chinese subsample had a profile most comparable with our Canadian sample, the conservative tests still showed that these two groups had noticeable differences in the magnitudes of the relationships among parenting, self-concept, and SPI. These cross-cultural distinctions

found in our study were relatively robust because our samples had exactly the same factor structure, factor patterns and factor covariances.

The first difference is in the effects of psychological control on SPI. Our results suggest that psychological control in Canada has a higher possibility than in China to directly drive adolescents away from home to stay closer to their friends. This finding makes sense since Canadian adolescents are expected by the society to follow their own initiatives to make decisions and achieve their personal goals. Yet, psychological controlling practices are not in line with such socialization goals and therefore tend to generate intergenerational conflict in the family, which, in turn, propel the youth to resist parental influence and orient more toward their peers.

Second, parental responsiveness is more effective in influencing English-Canadians' vis-à-vis Chinese's self-concept in general, self-esteem in particular. A major reason is that the Western self-concept development is more of a private issue and less affected by a larger scope of social networks. However, the development of self in China is more oriented toward the collective attributes, with more socialization agents being involved in this process. For example, group structure in the Chinese schools (from preschool to high school) tends to be more vertical and teacher-oriented than in Western schools, where group-oriented means peer-group-oriented. For this reason, school teachers may play more important roles in affecting adolescents' self-development in China than in Canada. In addition, as adolescents are often judged on their peer relationships in the Chinese society, acceptance by peers is likely to affect their self-concept as well.

Our results also indicated that responsive parenting is an effective tool in both

cultures to transmit cultural priorities from one generation to another. To be more specific, parental responsiveness in the individualistic cultures tends to discourage the development of interdependent self-construal that is inconsistent with the individualistic values held by the larger society. By contrast, parental responsiveness in the collectivistic cultures is likely to promote values of interdependent self-construal that is in accord with the collectivistic values of the larger society. This is mainly due to the fact that responsiveness fosters positive parent-child relationships (Peterson and Hann 1999), which lubricate the cultural transmission and drive young people to better identify with parents and incorporate parents' attitudes, values and role expectations into their own value system (Henry, Wilson and Peterson 1989).

Fourth, relative to their English-Canadian counterparts, Chinese adolescents with a higher level of interdependent self-construal are less likely to follow the advice of peers. This finding suggests that the prolonged dependency training in China may open less room for Chinese adolescents to be influenced by peers to go to the direction that their parents may disapprove of. Instead, interdependent self-construal may impel Chinese adolescents to be involved in activities that are consistent with the expectations of their parents, and to be more accepting of norms that match with their preferences. Therefore, in face of peer pressures, Chinese adolescents tend to take a compromise approach that takes into account both parents' and peers' views. Consistent with this reasoning, Iyengar, Lepper and Ross (1999) found that there is a discrete and salient ingroup-outgroup frontier but a weak self-ingroup boundary in collectivistic cultures. This is not the case for the English-Canadians though, because there is a strong self-other distinction but no significant ingroup-outgroup boundary in individualistic cultures (Iyengar, Lepper and

Ross 1999). Probably because of this, the Chinese often take a dialectical, or compromise, approach that retains basic elements of opposing perspectives, rather than polarizing the contradictions as in Western thought (Peng and Nisbett 1999).

In short, of these two cultures, parenting in general plays a more important role in influencing Canadian adolescents' self-concept and SPI. This is mainly due to the prolonged dependency training in the Chinese society. Chinese youth are expected by the society and the family to concentrate on their school performance and are not encouraged to be distracted by other issues, such as performing household chores, purchasing groceries, and social tasks. This is especially true for adolescents, as they are facing the challenges to excel in regional or national entrance exams to get access to better schools or colleges. Their parents (usually mothers) take on all household responsibilities in part to free them to focus on scholastic achievement. Congruent with this reasoning, none of the Chinese respondents in our data was found to have a part-time job, whereas 37.6% of the English-Canadian respondents worked part-timely. Additionally, Chinese parents usually require their children to hand in the pocket money they get from other resources (e.g., grandparents, great-grandparents, aunts, uncles) in order to better supervise them. With limited resources to get disposable money, as well as the prolonged training of dependency, Chinese adolescents have fewer opportunities to be influenced by their peers in choice decisions. In line with this reasoning, our data showed that Chinese adolescents exhibited a significantly lower level of SPI than their Canadian counterparts ( $M_{\text{Chinese}} = 2.17$  vs.  $M_{\text{Canadian}} = 2.59$ ,  $t = 4.43$ ,  $p < .05$ ), as indicated in Table 6-4.

**TABLE 6-4**  
**Mean Scores of the Model Variables<sup>a</sup>**

	Canadians <sup>b</sup> (n = 109)	Chinese <sup>b</sup> (n = 216)	t-value	p-value
RES	3.73 (.82)	3.66 (.92)	.67	.51
PSY	2.19 (1.08)	2.41 (1.23)	-1.70	.09
BEH	3.76 (.91)	3.74 (1.03)	.18	.86
ESTEEM	3.89 (.61)	3.25 (.85)	6.92	.00
DEPEN	2.93 (.75)	3.71 (.77)	-8.71	.00
SMONI	3.15 (.77)	3.27 (.95)	-.90	.37
SPI	2.59 (.80)	2.17 (.82)	4.43	.00

<sup>a</sup> RES = Responsiveness, PSY = Psychological control, BEH = Parental behavioral control, ESTEEM = Self-esteem, DEPEN = Interdependent self-construal, SMONI = Self-monitoring, SPI = Susceptibility to peer influence.

<sup>b</sup> Standard deviations are in parentheses.

Although the strengths of some aspects of parent-self-peer linkages are quite different across these two cultures, our results also suggest that parental behaviors serve virtually identical functions for peer influence in adolescents. Specifically, similar to the pattern prevalent in Canada, SPI in China is also likely to be negatively associated with parental responsiveness and positively associated with psychological control. This finding is very encouraging since it indicates that investigating the underlying mechanisms through which parents affect peer influence are more important than studying the parent-peer linkages per se.

To summarize, the findings of Study 3 provide further support of our framework. In addition, they offer an explanation for the asymmetric causal paths found in the parent-self-peer model across cultures.

**TABLE 7-1**  
**Overall Results of the Hypotheses Testing**

Hypotheses	English Canadians <sup>a</sup>				Chinese (N = 216)
	AA-SPI (N = 109)	PA-SPI (N = 109)	AA-RPO (N = 109)	NLSCY (Cycle 3) (N = 1,316)	
H1	Supported	Supported	Supported	Not tested	Not supported
H2	Not supported	Not supported	Not supported	Not tested	Not supported
H3	Supported	Supported	Supported	Supported	Not supported
H4	Not supported	Not supported	Not supported	Not supported	Not supported
H5	Supported	Supported	Not Supported	Not tested	Not supported
H6	Not supported	Not supported	Not supported	Not tested	Supported
H7	Supported	Not tested	Not tested	Not tested	Supported
H8	Supported	Not tested	Not tested	Not tested	Supported
H9	Supported	Not tested	Not tested	Not tested	Supported
H10	Supported	Not tested	Not tested	Not tested	Supported
H11	Supported	Not tested	Not tested	Not tested	Supported

<sup>a</sup> AA-SPI = Adolescents' Assessments, with SPI as the measure of peer influence; PA-SPI = Parents' Assessments, with SPI as the measure of peer influence; AA-RPO = Adolescents' Assessments, with RPO as the measure of peer influence.

## **CHAPTER SEVEN**

### **GENERAL DISCUSSION**

This research investigates an important but largely neglected mechanism through which parents affect adolescents' SPI: the adolescent self-concept. To the best of our knowledge, this research is the first to simultaneously examine the relationships among parenting, self-concept, and peer influence. Moreover, this research contributes to the existing literature by extending the proposed parent-self-peer model from the English-Canadian context to Chinese society so that the moderating role of culture in the process of parental influence on SPI could be examined. The results clearly suggest that parenting dimensions, especially parental responsiveness, affect SPI by influencing three key elements of self, namely self-construal, self-esteem, and self-monitoring. The magnitudes of these relationships, however, vary across different cultures with distinct socialization goals and cultural priorities. A summary of the hypotheses testing outcomes is presented in Table 7-1.

#### **7.1 Theoretical Implications**

Many facets of the results show that parenting has a great influence on adolescents' SPI. Specifically, responsiveness negatively affects SPI, whereas psychological control positively impacts it. This finding is largely consistent with previous studies in the psychology literature that have associated parenting with susceptibility to negative peer pressures (e.g., Bogenschneider et al. 1998; Oxford et al. 2000). These results, together with the greater power of SPI in explaining extreme social behaviors, indicate that SPI is reflective of both negative and normative peer pressures. Therefore, researchers in future studies can use SPI to better capture the level of peer

orientation tendency of adolescents.

Another important finding pertains to the mediating effects of self-concept on the relationships between parenting and SPI. This is especially true for parental responsiveness, as responsive parenting impacts SPI mainly through its influence on the inner resources of adolescents, including interdependent self-construal, self-esteem and self-monitoring. In particular, responsiveness affects the key elements of the adolescent self by undermining interdependent self-construal, fostering self-esteem, and impairing self-monitoring. Individuals with a higher level of interdependent self, a higher level of self-monitoring, or a lower level of self-esteem tend to be more susceptible to peer pressures.

Finally, the exploration of the moderating role of culture is also particularly fruitful. Introducing the same set of measures of parenting behaviors developed in Western cultures into the Chinese context, we found that the factor structure emerged from the Canadian data fitted with the Chinese data very well. In addition, the Chinese and Canadian samples also exhibited identical factor patterns and factor covariances. A further corroboration of this Western pattern was the negative effects of parental responsiveness and the positive effects of psychological control on Chinese adolescents' SPI. These findings indicate that the parenting dimensions are universally significant.

Although the valence of parent-peer linkages is apparently similar in both Canada and China, the magnitudes of these relationships and the way through which parents affect SPI are not the same in different cultures with distinct cultural priorities and socialization goals. The major cross-cultural disparities discovered by our research can be summarized as follows. First, psychological controlling strategies are less likely to drive



the Chinese youth closer to their peers, due to the relative consistency between the use of psychological control and the collectivistic socialization goals of the Chinese society. Second, parental responsiveness tends to foster adolescents' interdependent self-construal in China but to undermine the development of the interdependent self in Canada. A higher level of interdependent self-construal, yet, increases the Canadians' but not the Chinese's SPI. Lastly, responsiveness has a stronger influence on adolescent self-esteem in the Canadian society than in the Chinese society. Armed with a higher level of self-esteem, English-Canadian adolescents are less susceptible to peer influence; however, this is not the case for Chinese adolescents. These cross-cultural differences can be largely attributed to the unique characteristics and priorities of each society.

## **7.2 Methodological Implications**

From a methodological perspective, this research contributes to the literature by triangulating our findings with multiple-informant data, rather than gathering data only from mothers that has been widespread in past parenting research. In the literature, although some researchers (e.g., Minuchin 1985) have warned that collecting parenting data from one parent may result in biased views, no empirical research has yet been conducted to examine the extent to which the results are distorted if such data are used. Our study fills this gap through collecting parenting information from three members in every family (i.e., father, mother, child) and compared the results of parenting measures derived from four resources: adolescents' reports of parenting, fathers' self-reported paternal parenting, mothers' self-reported maternal parenting, and a combination of both parents' self-reported parenting. The results revealed two important issues. First, collecting data from one single parent but interpreting the results at the parent level is

misleading. So, future researchers need to collect childrearing information from both parents, rather than barely from one parent. Second, adolescents' reports of parenting tend to have a greater predictive power than one single parent's self-reported parenting in studying the adolescent self. Therefore, gathering adolescents' reports of parenting is a pertinent and easier alternative to study parent-self-peer linkages.

Another methodological contribution of this research is the use of longitudinal analyses to provide more robust evidence in support of the causal directions proposed in the parent-self-peer model. Previous studies on parent-peer linkages (e.g., Bogenschneider et al. 1998; Oxford et al. 2000) assume that susceptibility to peer pressures is the result, rather than the cause, of parental behaviors. However, such an assumption has yet not been tested by empirical data. This research fills this void through the analysis of parent-peer linkages during a four-year period. Our results established that childrearing behaviors are indeed more likely to be the antecedent of adolescents' peer relationships, rather than conversely.

Such a longitudinal examination of the NLSCY data also revealed that the effects of psychological control on peer influence were not stable over time. During childhood (from 10 to 11 years of age), psychological control is likely to undermine the self-esteem of children but does not impact their peer relationships. However, when they get older (between 12 and 15 years of age), psychological controlling practices have a direct influence on their peer orientation, without affecting their self-esteem. In other words, teenagers tend to respond to coercive parental strategies by rebelling, with a manifestation of staying closer to their peers and resisting parental influence, while keeping their self-esteem unchanged.

### **7.3 Managerial and Social Implications**

Applications of interpersonal influence are frequently seen in marketing strategies, such as portraying products being consumed in socially pleasant situations, using celebrities to endorse a brand, and using obvious group members as spokespersons. Acknowledging the importance of interpersonal influence in the decision-making process of adolescents, marketing practitioners tend to use interpersonal communication strategies (e.g., buzz marketing, opinion leaders, reference groups, spokespeople or celebrities) somewhat more frequently than any other means to target at adolescent consumers (Kotler, Armstrong, Cunningham 2005). Every year, American marketers spend over \$1 billion on media advertising to children through youth-oriented marketing channels that include television advertising, in-school marketing, the Internet, product placements, kids clubs, and toys/products (Austin and Reed 1999).

From a managerial perspective, this research informs managers that certain parenting practices and self-concept may foster the orientation of adolescents toward peers, while others may not. Armed with this information, marketing practitioners can identify peer-oriented adolescents through their parents' parenting behaviors or their key elements of self, and then design more effective marketing strategies accordingly. Marketers could also sell adolescent-related products more efficiently by targeting parents with certain types of parenting characteristics. In addition, this research provides information about cultural differences in parent-self-peer linkages. Based on our findings, international business players need to assign larger budgets to marketing programs that involve opinion leaders and reference groups when targeting adolescents living in individualistic cultures. These strategies, however, may not be so effective in

collectivistic cultures such as China, Korea and Japan. Because of prolonged dependency training in these societies, adolescents mainly follow the preferences of their parents to make purchases. Thus, marketers in such cultures need to pay more attention to the parents rather than the adolescents in a variety of marketing campaigns.

For social workers, our research finding raises a significant warning flag about the use of parental psychological control in the childrearing process, especially to parents who rely heavily on coercive parenting behaviors to inhibit the development of psychological autonomy in their adolescents and keep their youngsters dependent on them. Our results showed that in contrast to their expectations, their adolescents may actually be pushed away from home and could instead stay closer to their peers. Therefore, a more balanced parenting style is very important to socialize their adolescents. This is especially true for English-Canadian parents.

#### **7.4 Limitations and Directions for Future Research**

The present results have to be interpreted in the context of the study limitations. The first limitation is tied to the focus of middle-class intact families in our research. Even though the use of such a sample is pertinent to our research questions and allows us to triangulate the findings with three family members, this sample does not amply reflect a larger population with non-intact families. Therefore, further research should look at testing the parent-self-peer linkages using respondents from different social classes and with different family structures.

Another issue that was not examined in the present research was the potential difference in the effects of paternal and maternal childrearing practices. Looking back at Table 4-3, we found that self-esteem was marginally associated with maternal

responsiveness (.203,  $p < .10$ ), but not with paternal responsiveness (.003,  $p > .10$ ), indicating that paternal and maternal childrearing strategies may have different impact on the psychological well-being of adolescents. As our data only included the self-reported parental behaviors of fathers and the self-reported maternal behaviors of mothers, without assessing the perceptions of adolescents of paternal and maternal parental behaviors separately, it was impossible to conduct meaningful tests to examine these differences in this research. Future researchers should obtain adolescents' assessments of paternal and maternal parenting behaviors, as well as both fathers' and mothers' self-reported parenting strategies, so that they could evaluate not only the congruency between parent-adolescent perceptions, but also the disparities in the functions of paternal and maternal parenting behaviors on adolescent self-development and SPI.

A third limitation is related to the gender of adolescents. Previous research suggests that parents treat girls and boys differently. Parents tend to use power-assertive discipline (e.g., physical punishment, threats, stating directives with little or no justification) more frequently with sons than daughters (Hart et al. 1992; Lytton and Romney 1991). In contrast, daughters are more likely to be parented with inductive discipline (e.g., providing rationales for claims and consequences, explaining, and eliciting ideas from the child to regulate behaviors) (Chipman et al. 2000; Hart et al. 1992). However, little is known about if the same paternal/maternal parenting behaviors may affect girls and boys in a different way. To uncover the interactive effects of both parents' and adolescents' gender on parent-self-peer linkages, future researchers need to include a larger number of respondent families and divide them into father-son, father-daughter, mother-son, and mother-daughter groups so that a series of multi-group

analyses can be conducted.

A final issue is the use of pencil-and-paper survey method in our data collection process. In future research, it would be ideal to have both qualitative and quantitative data to further cross-validate the findings. The integration of divergent procedures for testing the same hypothesis helps factor out any possibility of bias from particular weaknesses pertaining to a given method of investigation. Furthermore, qualitative approach, such as ethnographic studies, interviews, and/or participant-observation, may assist us to uncover more contextualized information about parent-self-linkages. In addition to applying cross-validation via a combination of qualitative and quantitative paradigms, methodological triangulation can also be used within each paradigm to preclude bias through different data collection modes (interview, questionnaire, observation, etc.) and multiple sources (different samples of the same information).

## References

- Allen, J.P., and Hauser, S.T. (1994), "Longitudinal Assessment of Autonomy and Relatedness in Adolescent-family Interactions as Predictors of Adolescents' Ego Development and Self-Esteem," *Child Development*, 65, 179-194.
- Anderson, J., and Gerbing, D. (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two Step Approach," *Psychological Bulletin*, 103(May), 411-23.
- Austin, M.J., and Reed, M.L. (1999), "Targeting Children Online: Internet Advertising Ethics Issues," *Journal of Consumer Marketing*, 16(6), 590-602.
- Bachmann, G.R., John, D.R., and Rao, A.R. (1993), "Children's Susceptibility to Peer Group Purchase Influence: An Exploratory Investigation," *Advances in Consumer Research*, 20, 463-468.
- Barber, B.K. (1997), "Introduction: Adolescent Socialization in Context – The Role of Connection, Regulation, and Autonomy in the Family," *Journal of Adolescent Research*, 12(1), 5-11.
- Barber, B.K. (1999), "Political Violence, Family Relations, and Palestinian Youth Functioning," *Journal of Adolescent Research*, 14, 206-230.
- Barber, B.K., Chadwick, B.A., and Oerter, R. (1992), "Parental Behaviors and Adolescent Self-Esteem in the United States and Germany," *Journal of Marriage and Family*, 54, 128-141.
- Barber, B.K., and Harmon, E.L. (2002), "Violating the Self: Parental Psychological Control of Children and Adolescents," In B.K. Barber (Ed.), *Intrusive Parenting* (pp. 15-52). Washington, DC: American Psychological Association.

- Barnes, G.M., and Farrell, M.P. (1992), "Parental Support and Control as Predictors of Adolescent Drinking, Delinquency, and Related Problem Behaviors," *Journal of Marriage and the Family*, 54, 763-776.
- Bateson, M.C. (1991), "Reflections on Risk and Calibration," In L.P. Lipsitt and L.L. Mitnick (Eds.), *Self-regulatory Behaviors and Risk Taking: Causes and Consequences*. Norwood, NJ: Ablex Publishing Corporation.
- Baumeister, R.F., and Leary, M.R. (1995), "The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation," *Psychological Bulletin*, 117, 497-529.
- Baumeister, R.F., and Tice, D.M. (1990), "Anxiety and Social Exclusion," *Journal of Social and Clinical Psychology*, 9, 165-195.
- Baumrind, D. (1971), "Current Patterns of Parental Authority," *Developmental Psychology Monograph*, 4 (January), 1-103.
- Baumrind, D. (1987), "A Developmental Perspective on Adolescent Risk-taking in Contemporary America," In C.E. Irwin (Ed.), *Adolescent Social Behavior and Health: New Directions for Child Development* (pp. 93-125). Social and Behavioral Science Series, 37(fall). San Francisco: Jossey Bass.
- Bearden, W.O., Netemeyer, R.G., and Teel, J.E. (1989), "Measurement of Consumer Susceptibility to Interpersonal Influence," *Journal of Consumer Research*, 15(March), 473-481.
- Bearden, W.O., Netemeyer, R.G., and Teel, J.E. (1990), "Further Validation of the Consumer Susceptibility to Interpersonal Influence Scale," *Advances in Consumer Research*, 17, 770-776.



- Bearden, W.O., and Rose, R.L. (1990), "Attention to Social Comparison Information: An Individual Difference Factor Affecting Consumer Conformity," *Journal of Consumer Research*, 16(March), 461-471.
- Beauregard, K.S., and Dunning, D. (1998), "Turning Up the Contrast: Self-enhancement Motives Prompt Egocentric Contrast Effects in Social Judgments," *Journal of Personality and Social Psychology*, 74, 606-621.
- Bentler, P. (1992), *EQS Structural Equations Program Manual*. Los Angeles, CA: BMDP Statistical Software.
- Bogensneider, K., Wu, M., Raffaelli, M., and Tsay, J.C. (1998), "Parent Influences on Adolescent Peer Orientation and Substance Use: The Interface of Parenting Practices and Values," *Child Development*, 69(6), 1672-1688.
- Bond, M.H. (1991), *Beyond the Chinese Face: Insights from Psychology*. Hong Kong: Oxford University Press.
- Bornstein, M.H. (1995), "Parenting Infants," In M.H. Bornstein (Ed.), *Handbook of Parenting: Vol. 1. Children and Parenting* (pp. 3-39). Hillsdale, NJ: Erlbaum.
- Brand, M. (2004), "Collectivistic versus Individualistic Cultures: A Comparison of American, Australian and Chinese Music Education Students' Self-esteem," *Music Education Research*, 6(1), 57-66.
- Bretherton, I., Golby, B., and Cho, E. (1997), "Attachment and the Transmission of Values," In L. Kuczynski (Ed.), *Parenting and Children's Internalization of Values: A Handbook of Contemporary Theory*. New York: John Wiley and Sons.
- Bristol, T., and Mangleburg, T.F. (2005), "Not Telling the Whole Story: Teen Deception in Purchasing," *Journal of the Academy of Marketing Science*, 33(1), 79-95.

- Brockner, J. (1988), *Self-Esteem at Work: Research, Theory, and Practice*. Lexington, MA: Lexington Books.
- Bronfenbrenner, U. (1992), "Ecological Systems Theory," In R. Vasta (Ed.), *Six Theories of Child Development: Revised Formulations and Current Issues* (pp. 187-249). Bristol, PA: Jessica Kingsley Publishers.
- Brookes, A. (1998), "Perception and Profit," *Far Eastern Economic Review*, 161, 42-46.
- Browne, M., and Cudeck, R. (1989), "Single Sample Cross Validation Indices for Covariance Structures," *Multivariate Behavioral Research*, 24, 445-455.
- Buri, J.R. (1989), "Self-Esteem and Appraisals of Parent Behavior," *Journal of Adolescent Research*, 4, 33-39.
- Buri, J.R. (1991), "Parental Authority Questionnaire," *Journal of Personality and Assessment*, 57, 110-119.
- Burnkrant, R.E., and Cousineau, A. (1975), "Informational and Normative Social Influence in Buyer Behavior," *Journal of Consumer Research*, 2(December), 206-215.
- Bush, K.R. (2000), "Separateness and Connectedness in the Parent/Adolescent Relationship as Predictors of Adolescent Self-esteem among U.S. and Chinese Samples," *Marriage and Family Review*, 30, 153-173.
- Bush, K.R., Peterson, G.W., Cobas, J.A., and Supple, A.J. (2002), "Adolescents' Perceptions of Parental Behaviors as Predictors of Adolescent Self-Esteem in Mainland China," *Sociological Inquiry*, 72, 503-526.
- Byrne, B.M. (1994), *Structural Equation Modeling with EQS*. Sage Publications.
- Cai, C.A., Wilson, S.R., and Drake, L.E. (2000), "Culture in the Context of Intercultural

- Negotiation Individualism-Collectivism and Paths to Integrative Agreements,”  
*Human Communication Research*, 26, 591-615.
- Chao, R.K. (1994), “Beyond Parental Control and Authoritarian Parenting Style: Understanding Chinese Parenting through the Cultural Notion of Training,” *Child Development*, 65, 1111-1119.
- Chao, R.K., and Sue, S. (1996), “Chinese Parental Influence and Their Children’s School Success: A Paradox in the Literature on Parenting Styles,” In S. Lau (Ed.), *Growing Up the Chinese Way* (pp. 93-120). Hong Kong: The Chinese University Press.
- Chen, X. (2000), “Growing Up in a Collectivist Culture: Socialization and Socioemotional Development in Chinese Children,” In A.L. Comunian and U.P. Gielen (Eds.), *International Perspectives on Human Development* (pp. 331-353). Lengerich, Germany: Pabst Science Publishers.
- Chen, X., Dong, Q., and Zhou, H. (1997), “Authoritative and Authoritarian Parenting Practices and Social and School Performance in Chinese Children,” *International Journal of Behavioral Development*, 21, 855-874.
- Chen, H., and Lan, W. (1998), “Adolescents’ Perceptions of Their Parents’ Academic Expectations: Comparison of American, Chinese-American, and Chinese High School Students,” *Adolescence*, 33(130), 385-390.
- Chen, X., Liu, M.W., and Li, B. (2000), “Parental Warmth, Control, and Indulgence and Their Relations to Adjustment in Chinese Children: A Longitudinal Study,” *Journal of Family Psychology*, 14, 401-419.
- Chen, X., Rubin, K.H., and Li, B. (1997), “Maternal acceptance and Social and School

- Adjustment in Chinese Children: A Four-year Longitudinal Study,” *Merrill-Palmer Quarterly*, 43(4), 663-681.
- Cheung, P.C., and Lau, S. (1985), “Self-Esteem: Its Relationship to the Family and School Social Environments among Chinese Adolescents,” *Youth and Society*, 16, 438-456.
- Chipman, S., Olsen, S.F., Klein, S., Hart, C.H., and Robinson, C.C. (2000), “Differences in Retrospective Perceptions of Parenting of Male and Female Inmates and Non-Inmates,” *Family Relations*, 49, 5-11.
- Churchill, G. (1979), “A Paradigm for Constructing Better Measures of Marketing Concepts,” *Journal of Marketing Research*, 16(1): 64-73.
- Churchill, G.A., Jr., and Moschis, G.P. (1979), “Television and Interpersonal Influences on Adolescent Consumer Learning,” *Journal of Consumer Research*, 6(June), 23-35.
- Coie, J.K., and Dodge, K.A. (1998), “Aggression and Antisocial Behavior,” In W. Damon (Ed.), *Handbook of Child Psychology, 5th edition. Volume 3: Social, Emotional, and Personality Development*. NY: John Wiley and Sons.
- Cooley, C.H. (1902), *Human Nature and the Social Order*. New York: Scribner’s.
- Cox, D., and Bauer, R. (1964), “Self-Confidence and Persuasibility in Women,” *Public Opinion Quarterly*, 453-466.
- Cross, S.E., and Madson, L. (1997), “Models of the Self: Self-Construals and Gender,” *Psychological Bulletin*, 122, 5-37.
- Curtner-Smith, M.E., and Mackinnon-Lewis, C.E. (1994), “Family Process Effects on Adolescent Males’ Susceptibility to Antisocial Peer Pressure,” *Family Relations*,

43, 462-468.

- Darling, N., and Steinberg, L. (1993), "Parenting Style as Context: An Integrative Model," *Psychological Bulletin*, 113(3), 487-496.
- Dien, D.S. (1983), "Big Me and Little Me: A Chinese Perspective on Self," *Psychiatry*, 46, 281-286.
- Dien, D.S. (1999), "Chinese Authority-Directed Orientation and Japanese Peer-group Orientation: Questioning the Notion of Collectivism," *Review of General Psychology*, 3, 372-385.
- Dornbusch, S.M., Ritter, P.L., Leiderman, P.H., Roberts, D.F., and Fraleigh, M.J. (1987), "The Relation of Parenting Style to Adolescent School Performance," *Child Development*, 58, 1244-1257.
- Eccles, J.S., Buchanan, C.M., Midgley, C., Fulligni, A.J., and Flanagan, C. (1991), "Control versus Autonomy during Early Adolescence," *Journal of Social Issues*, 47, 53-68.
- Eckenrode, J., and Laiard, M. (1993), "School Performance and Disciplinary Problems among Abused and Neglected Children," *Developmental Psychology*, 29, 53-63.
- Eisenberg, N., Fabes, R.A., Schaller, M., Carlo, G., and Miller, P.A. (1991), "The Relations of Parental Characteristics and Practices to Children's Vicarious Emotional Responding," *Child Development*, 62, 1393-1408.
- Elliott, D.S., Huizinga, D., and Manard, S. (1989), *Multiple Problem Youth: Delinquency, Substance Use, and Mental Health Problems*. New York: Springer-Verlag.
- Elliott, G.C. (1979), "Some Effects of Deception and Level of Self-Monitoring on Planning and Reacting to a Self-Presentation," *Journal of Personality and Social*

*Psychology*, 37, 1282-1292.

- Ellis, G.J., and Petersen, L.R. (1992), "Socialization Values and Parental Control Techniques: A Cross-Cultural Analysis of Child-Rearing," *Journal of Comparative Family Studies*, XXIII, 39-54.
- Ennett, S.T., and Bauman, K.E. (1991), "Mediators in the Relationship between Parental and Peer Characteristics and Beer Drinking by Early Adolescents," *Journal of Applied Social Psychology*, 21, 1699-1711.
- Enright, R.D., Lapsley, D.K., Drivas, A.E., and Fehr, L.A. (1980), "Parental Influences on the Adolescent Autonomy and Identity," *Journal of Youth and Adolescence*, 9(6), 529-546.
- Epstein, S. (1973), "The Self-Concept Revisited or a Theory of a Theory," *American Psychologist*, 28, 405-416.
- Escalas, J.E., and Bettman, J.R. (2005), "Self-Construal, Reference Groups, and Brand Meaning," *Journal of Consumer Research*, 32(3), 378-389.
- Feldman, S.S., and Rosenthal, D.A. (1990), "The Acculturation of Autonomy Expectations in Chinese High Scholars Residing in Two Western Nations," *International Journal of Psychology*, 25(3), 259-281.
- Feldman, S.S., and Quatman, T. (1988), "Factors Influencing Age Expectations for Adolescent Autonomy: A Study of Early Adolescents and Parents," *Journal of Early Adolescence*, 8(4), 325-343.
- Flay, B.R., Hu, F.B., Siddiqui, O., Day, L.E., Hedeker, D., Petraitis, J., Richardson, J., and Sussman, S. (1994), "Differential Influence of Parental Smoking and Friends' Smoking on Adolescent Initiation and Escalation of Smoking," *Journal of Health*

*and Social Behavior*, 35, 248-265

- Fornell, C., and C. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18(1), 39-50.
- Fuligni, A.J., and Eccles, J.S. (1993), "Perceived Parent-Child Relationships and Early adolescents' Orientation towards Peers," *Developmental Psychology*, 29, 622-632.
- Fung, H. (1999), "*Becoming a Moral Child: The Socialization of Shame among Young Chinese Children*," Unpublished manuscript.
- Furstenburg, F.F., Jr. (1971), "The Transmission of Mobility Orientation in the Family," *Social Forces*, 49, 596-603.
- Gardner, W.L., Gabriel, S., and Lee, A.Y. (1999), "'I' Value Freedom but 'We' Value Relationships: Self-Construal Priming Mirrors Cultural Differences in Judgment," *Psychological Science*, 10, 321-326.
- Gecas, V. (1971), "Parental Behaviors and Dimensions and Dimensions of Adolescent Self-Esteem," *Sociometry*, 35, 466-482.
- Gecas, V., and Schwalbe, M. (1986), "Parental Behavior and Adolescent Self-Esteem," *Journal of Marriage and the Family*, 48, 37-46.
- Geizer, R.S., Parick, D.C., and Soldow, G.F. (1977), "Deception and Judgment Accuracy: A Study in Person Perception," *Personality and Social Psychology Bulletin*, 3, 467-482.
- Geppert, U., and Kuster, U. (1983), "The Emergence of 'Wanting To Do It Oneself': A Precursor of Achievement Motivation," *International Journal of Behavioral Development*, 6, 355-370.

- Graziano, W.G., and Waschull, S.B. (1995), "Social Development and Self-Monitoring," In N. Eisenberg (Ed.), *Social Development* (pp. 233-260). Thousand Oaks, CA: Sage.
- Guan, Y. (2003), "Consumption Patterns of Chinese Children," *Journal of Family and Economic Issues*, 24(4), 373-379.
- Hair, J.F., Tatham, R.L., Anderson, R.E., and Black, W. (1998), *Multivariate Data Analysis (5th Edition)*. Upper Saddle River, NJ: Prentice Hall.
- Hart, C.H., DeWolf, M., Wozniak, P., and Burts, D.C. (1992), "Maternal and Paternal Disciplinary Styles: Relations with Preschoolers' Playground Behavioral Orientation and Peer Status," *Child Development*, 63, 879-892.
- Hart, D., and Fegley, S. (1997), "The Development of Self-Awareness and Self-Understanding in Cultural Context," In U. Neisser and D. Jopling (Eds.), *Culture, Experience, and the Conceptual Self* (pp. 128-153). New York: Cambridge University Press.
- Hawkins, J.D., and Weis, J.G. (1985), "The Social Development Model: An Integrated Approach to Delinquency Prevention," *Journal of Primary Prevention*, 6, 73-97.
- Harwood, R.L., Schoelmerich, A., Schulze, P.A., and Gonzalez, Z. (1999), "Cultural Differences in Maternal Beliefs and Behaviors: A Study of Middle-Class Anglo and Puerto Rican Mother-infant Pairs in Four Everyday Situations," *Child Development*, 70, 1005-1016.
- Henry, C.L., Wilson, S.M., and Peterson, G.W. (1989), "Parental Competence Bases and Processes as Predictors of Adolescent Conformity," *Journal of Adolescent Research*, 4, 15-32.



- Herman, M.R., Dornbusch, S.M., Herron, M.C., and Herting, J.R. (1997), "The Influence of Family Regulation, Connection, and Psychological Autonomy on Six Measures of Adolescent Functioning," *Journal of Adolescence Research*, 12, 34-67.
- Ho, D.Y.F. (1986), "Chinese Pattern of Socialization: A Critical Review," In M.H. Bond (Ed.), *The Psychology of the Chinese People* (pp. 1-37). New York: Oxford University Press.
- Ho, D.Y.F. (1989), "Continuity and Variation in Chinese Patterns of Socialization," *Journal of Marriage and the Family*, 51(1), 149-163.
- Ho, D.Y.F., Peng, S.Q., and Lai, A.C. (2001), "Parenting in Mainland China: Culture, Ideology, and Policy," *International Society for the Study of Behavioral Development Newsletter*, 38, 7-9.
- Hobfoll, S.E., Nadler, A., and Leiberian, J. (1986), "Satisfaction with Social Support during Crisis: Intimacy and Self-Esteem as Critical Determinants," *Journal of Personality and Social Psychology*, 51, 296-304.
- Hoffman, J.P. (1993), "Exploring the direct and indirect family effects on adolescent drug use," *Journal of Drug Issues*, 23, 535-557.
- Hofstede, G. (1980), *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills: Sage.
- Hoelter, J., and Harper, L. (1987), "Structural and Interpersonal Family Influences on Adolescent Self-Concept," *Journal of Marriage and the Family*, 49, 129-139.
- Iyengar, S.S., Lepper, M.R., and Ross, L. (1999), "Independence from Whom? Interdependence from Whom? Cultural perspectives on Ingroups versus Outgroups," In D.A. Prentice and D.T. Miller (Eds.), *Cultural Divides:*

*Understanding and Overcoming Group Conflict*. New York: Russell Sage Foundation.

John, R.D. (1999), "Consumer Socialization of Children: A Retrospective Look at Twenty-Five Years of Research," *Journal of Consumer Research*, 26(December), 183-213.

Kandel, D.B. (1996), "The Parental and Peer Contexts of Adolescent Deviance: An Algebra of Interpersonal Influences," *Journal of Drug Issues*, 26(2), 289-315.

Kandel, D.B., and Andrews, K. (1987), "Processes of Adolescent Socialization by Parents and by Peers," *International Journal of the Addictions Special Issue*, 22, 319-342.

Kaplan, D., and George, R. (1995), "A Study of the Power Associated With Testing Factor Mean Differences under Violations of Factorial Invariance," *Structural Equation Modeling: A Multidisciplinary Journal*, 2, 101-118.

Keith, L., and Bracken, B.A. (1996), "Self-concept Instrumentation: A Historical and Evaluative Review," In B.A. Bracken (Ed.), *Handbook of Self-Concept: Developmental, Social and Clinical Considerations* (pp. 91-170). New York: Wiley.

Kelley, M. L., and Tseng, H.M. (1992), "Cultural Differences in Child Rearing: A Comparison of Immigrant Chinese and Caucasian American Mothers," *Journal of Cross-Cultural Psychology*, 23, 444-455.

Kilduff, M. (1992), "The Friendship Network as A Decision-Making Resource: Dispositional Moderators of Social Influences on Organizational Choice," *Journal of Personality and Social Psychology*, 62, 168-80.

- Koestner, R., Bernieri, F., and Zuckerman, M. (1992), "Self-Regulation and Consistency between Attitudes, Traits, and Behaviors," *Personality and Social Psychology Bulletin*, 18(1), 52-59.
- Kotler, P., Armstrong, G., and Cunningham, P.H. (2005), *Principles of Marketing* (6th ed.). Toronto: Prentice Hall.
- Kruger, S.F., and Kroes, W.H. (1972), "Child-rearing Attitudes of Chinese, Jewish, and Protestant Mothers," *Journal of Social Psychology*, 86, 205-210.
- Kuczynski, L., and Kochanska, G. (1995), "Function and Content of Maternal Demands: Developmental Significance of Early Demands," *Child Development*, 66, 616-628.
- Kurdek, L.A., Fine, M.A., and Sinclair, R.J. (1995), "School Adjustment in Sixth Graders: Parenting Transitions, Family Climate, and Peer Norm Effects," *Child Development*, 66, 430-445.
- Lau, S., and Cheung, P.C. (1987), "Relations between Chinese Adolescents' Perception of Parental Control and Organization and Their Perception of Parental Warmth," *Developmental Psychology*, 23(5), 726-729.
- Leary, M.R. (1999), "The Social and Psychological Importance of Self-Esteem," In R.M. Kowalski and M.R. Leary (Eds.), *The Social Psychology of Emotional and Behavioral Problems: Interfaces of Social and Clinical Psychology* (pp. 197-221). Washington DC: American Psychological Association.
- Leary, M.R., and Downs, D.L. (1995), "Interpersonal Functions of the Self-esteem Motive: The Self-Esteem System as a Sociometer," In M.H. Kernis (Ed.), *Efficacy, Agency, and Self-Esteem: Plenum Series in Social/Clinical Psychology* (pp. 123-144). New York: Plenum Press.

- Leary, M.R., and Baumeister, R.F. (2000), "The Nature and Function of Self-Esteem: Sociometer Theory," In M.P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 32, pp. 1-62). New York: Academic Press.
- Leary, M.R., Tambor, E.S., Terdal, S.K., and Downs, D.L. (1995), "Self-Esteem as an Interpersonal Monitor: The Sociometer Hypothesis," *Journal of Personality and Social Psychology*, 68, 518-530.
- Lennox, R. and Wolfe, R. (1984), "Revision of the Self-Monitoring Scale," *Journal of Personality and Social Psychology*, 46, 1349-1364.
- Leung, K., Lau, S., and Lam, W.L. (1998), "Parenting Styles and Academic Achievement: A Cross-Cultural Study," *Merrill-Palmer Quarterly*, 44, 157-172.
- LeVine, R.A., Dixon, S., Levine, S., Richman, A., Leiderman, P.H., Keefer, C.H., and Braxelton, T.B. (1994), *Childcare and Culture: Lessons from Africa*. New York: Cambridge University Press.
- Lin, C.C., and Fu, V.R. (1990), "A Comparison of Child-rearing Practices among Chinese, Immigrant Chinese, and Caucasian-American Parents," *Child Development*, 61, 429-528.
- Litovsky, G.V., and Dusek, J. (1985), "Perceptions of Child Rearing and Self-Concept Development during the Early Adolescent Years," *Journal of Youth and Adolescence*, 14, 373-387.
- Liu, M. (2003), *Autonomy- vs. Connectedness-oriented Parenting Behaviors in Chinese and Canadian Mothers*, Unpublished Dissertation, University of Western Ontario.
- Locander, W., and Hermann, P. (1979), "The Effects of Self-Confidence and Anxiety on Information Seeking in Consumer Risk Reduction," *Journal of Marketing*

- Research*, 16, 268-274.
- Lord, K.R., Lee, M., and Choong, P. (2001), "Differences in Normative and Informational Social Influence," *Advances in Consumer Research*, 28, 280-285.
- Lytton, H., and Romney, D.M. (1991), "Parents' Differential Socialization of Boys and Girls: A Meta-Analysis," *Psychological Bulletin*, 109, 267-296.
- Markus, H.R., and Kitayama, S. (1991), "Culture and The Self: Implications For Cognition, Emotion, and Motivation," *Psychological Review*, 98, 224-253.
- Markus, H.R., and Kitayama, S. (1994), "The Cultural Construction of Self and Emotion: Implications for Social Behavior," In S. Kitayama and H.R. Markus (Eds.), *Emotion and Culture: Empirical Studies of Mutual Influence* (pp. 89-130). Washington, DC: American Psychological Association.
- Mascarenhas, O.A.J., and Higby, M.A. (1993), "Peer, Parent, and Media Influences in Teen Apparel Shopping," *Journal of the Academy of Marketing Science*, 21(Winter), 53-58.
- McNeal, J.U. (1992), *Kids as Consumers: A Handbook of Marketing to Children*. New York, NY: Lexington Books.
- McNeal, J.U., and Yeh, C. (1997), "Development of Consumer Behavior Patterns Among Chinese Children," *Journal of Consumer Marketing*, 14(1), 45-59.
- Mead, G.H. (1934), *Mind, Self, and Society*. Chicago, IL: University of Chicago Press.
- Mehra, A., Kilduff, M., and Brass, D.J. (2001), "The Social Networks Of High and Low Self-Monitors: Implications for Workplace Performance," *Administrative Science Quarterly*, 46, 121-46.
- Mill, J. (1984), "High and Low Self-Monitoring Individuals: Their Decoding Skills and

- Empathic Expression,” *Journal of Personality*, 52(4), 372–388.
- Miller, B.C. (1993), “Families, Science, and Values: Alternative Views of Parenting Effects and Adolescent Pregnancy,” *Journal of Marriage and the Family*, 55, 7-21.
- Minuchin, P. (1985), “Families and Individual development: Provocations from the Field of Family Therapy,” *Child Development*, 56, 289-302.
- Nunnally, J. (1978), *Psychometric Theory*, 2<sup>nd</sup> edition. New York: McGraw-Hill.
- Olsen, S.F., Yang, C., Hart, C.H., Robinson, C.C, Wu, P., Nelson, D.A., Nelson, L.J., Jin, S., and Wo, J. (2002), “Maternal Psychological Control and Preschool Children’s Behavioral Outcomes in China, Russia, and the United States,” In B.K. Barber (Ed.), *Intrusive Parenting* (pp.235-262). Washington, DC: American Psychological Association.
- Openshaw, D.K., Thomas, D.L., and Rollins, B.C. (1983), “Socialization and Adolescent Self-Esteem: Symbolic Interaction and Social Learning Explanations,” *Adolescence*, 18, 317-329.
- Openshaw, D.K., Thomas, D.L., and Rollins, B.C. (1984), “Parental Influences on Adolescent Self-Esteem,” *Journal of Early Adolescence*, 4, 259-274.
- Oppenheimer, L. (1990), *The Self-Concept: European Perspectives on Its Development, Aspects and Applications*. New York: Springer Verlag.
- Oxford, M.L., Harachi, T.W., Catalano, R.F., and Abbott, R.D. (2000), “Preadolescent Predictors of Substance Initiation: A Test of Both the Direct and Mediated Effects of Family Social Control Factors on Deviant Peer Associations and Substance Initiation,” *American Journal of Drug and Alcohol Abuse*, 27(4), 599-616.

- Park, C.W., and Lessig, V.P. (1977), "Students and Housewives: Differences in Susceptibility to Reference Group Influence," *Journal of Consumer Research*, 4(September), 102-110.
- Pavis, S., Masters, H., and Cunningham-Burley, S. (1996), *Lay Concepts of Positive Mental Health and How it can be Maintained*. Edinburgh: University of Edinburgh.
- Pavis, S., Cunningham-Burley, S., and Amos, A. (1997), "Alcohol Consumption and Young People: Exploring Meaning and Social Context," *Health Education Research: Theory and Practice*, 12(3), 311-322.
- Pedhazur, E., and Schmelkin, L. (1991), *Measurement, Design and Analysis: An Integrated Approach*. Hillsdale, NJ: Lawrence Erlbaum Associate Publishers.
- Peng, K., and Nisbett, R.E. (1999), "Culture, Dialectics, and Reasoning about Contradiction," *American Psychologist*, 54, 741-754.
- People's Daily (Overseas Edition), "Consumption Trend," October 16, 2004.
- Peterson, G.W., Bush, K.R., and Supple, A.J. (1999), "Predicting Adolescent Autonomy from Parents: Relationship Connectedness and Restrictive," *Sociological Inquiry*, 69, 431-457.
- Peterson, G.W., and Hann, D. (1999), "Socializing Parents and Children in Families," In S. Steinmetz, M. Sussman, and G.W. Peterson (Eds.), *Handbook of Marriage and the Family* (pp. 327-370). New York: Plenum Press.
- Peterson, G.W., and Leigh, G.K. (1990), "The Family and Social Competence in Adolescents," In T.P. Gullotta, G.R. Adams, and R. Montemayor (Eds.), *Developing Social Competence in Adolescents* (pp. 97-138). Newbury Park, CA:

Sage.

- Peterson, G.W., Rollins, B.C., and Thomas, D.L. (1985), "Parental Influence and Adolescents' Conformity: Compliance and Internalization," *Youth and Society*, 16, 397-420.
- Peterson, G.W., Southworth, L.E., and Peters, D.F. (1983), "Children's Self-Esteem and Maternal Behavior in Three Low-Income Samples," *Psychological Report*, 52, 79-86.
- Phalet, K., and Schönplflug, U. (2001), "Intergenerational Transmission of Collectivism and Achievement Values in Two Acculturation Contexts: The Case of Turkish Families in Germany and Turkish and Moroccan Families in the Netherlands," *Journal of Cross-Cultural Psychology*, 32(2), 186-201.
- Pratt, D.D. (1991), "Conceptions of self within China and the United States," *International Journal of Intercultural Relations*, 15, 285-310.
- Premeaux, S.F., and Bedeian, A.G. (2003), "Breaking the Silence: The Moderating Effects of Self-Monitoring in Predicting Speaking Up in the Workplace," *Journal of Management Studies*, 40(6), 1537-1562.
- Rarick, D.L., Soldow, G.F., and Geizer, R.S. (1976), "Self-Monitoring as a Mediator of Conformity," *General States Speech Journal*, 27, 267-271.
- Raudenbush, Stephen W. and Anthony S. Bryk. 2002. *Hierarchical Linear Models: Applications and Data Analysis Models*. Sage Publications.
- Rohner, R.P. (1986), *The Warmth Dimension: Foundation of Parental Acceptance-Rejection Theory*. Newbury Park, CA: Sage.
- Rollins, B.C., and Thomas, D.L. (1979), "Parental Support, Power, and Control



- Techniques in the Socialization of Children,” In W.R. Burr, R. Hill, F.I. Nye, and I.L. Reiss (Eds.), *Contemporary Theories about the Family: Vol. 1. Research Based Theories* (pp. 317-364). New York: Free Press.
- Rose, G.M. (1999), “Consumer Socialization, Parental Style, and Development Timetables in the United States and Japan,” *Journal of Marketing*, 63(July), 105-119.
- Rose, G.M., Boush, D.M., and Friestad, M. (1998), “Self-Esteem, Susceptibility to Interpersonal Influence, and Fashion Attribute Preference in Early Adolescents,” *European Advances in Consumer Research*, 3, 197-203.
- Rosenberg, Morris (1986), *Conceiving the Self*. Florida: R.E. Krieger.
- Schoenrock, C.J., Bell, N.J., Sun, S.W., and Avery, A.W. (1999), “Family Correlates of Adolescent Self-Monitoring and Social Competence,” *Journal of Psychology*, 133(4), 377-393.
- Shen, E.C. (1989) Differences between Chinese and American reactions to the Bernreuter Personality Inventory, *Journal of Social Psychology*, 7, 471–474.
- Silk, J.S., Morris, A.S., Kanaya, T., and Steinberg, L. (2003), “Psychological Control and Autonomy Granting: Opposite Ends of a Continuum or Distinct Constructs?” *Journal of Research on Adolescence*, 13, 113-128.
- Simons, R.L., Chao, W., Conger, R.D., and Elder, G.H., Jr. (2001), “Quality of Parenting as a Mediator of the Effect of Childhood Defiance on Adolescent Friendship Choices and Delinquency: A Growth Curve Analysis,” *Journal of Marriage and the Family*, 63, 63-79.
- Singelis, T.M. (1994), “The Measurement of Independent and Interdependent Self-

- Construals,” *Personality and Social Psychology Bulletin*, 20(5), 580-591.
- Skinner, E.A. (1998), “Commentary: Strategies for Studying Social Influences on Motivation,” In J. Heckhausen and C.S. Dewck (Eds.), *Motivation and Self-regulation across the Life-span* (pp. 216-234). New York, NY: Cambridge University Press.
- Smetana, J.G. (1995), “Parenting Styles and Conceptions of Parenting Authority during Adolescence,” *Child Development*, 66, 299-316.
- Smetana, J.G., and Daddis, C. (2002), “Domain Specific Antecedents of Psychological Control, Parental Monitoring, and Adolescent Autonomy: The Role of Parenting Beliefs and Practices,” *Child Development*, 73, 563-580.
- Snyder, M. (1974), “Self-Monitoring of Expressive Behavior,” *Journal of Personality and Social Psychology*, 30(4), 526-537.
- Snyder, M. (1983), “The Influence of Individuals on Situations: Implications for Understanding the Links between Personality and Social Behavior,” *Journal of Personality*, 51(3), 497-516.
- Snyder, M. (1987), *Public Appearances/Private Realities: The Psychology of Self-Monitoring*. New York: W.H. Freeman.
- Statistics China (2005), <http://www.stats.gov.cn>
- Steenkamp, J-B., and Baumgartner, H. (1998), “Assessing Measurement Invariance in Cross-National Consumer Research,” *Journal of Consumer Research*, 25(June), 78-90.
- Steinberg, L. (1990), “Autonomy, Conflict, and Harmony in the Family Relationship,” In S.S. Feldman and G.R. Elliott (Eds.), *At the Threshold: The Developing*

*Adolescent* (pp. 255-276). Cambridge, MA: Harvard University Press.

Steinberg, L., Lamborn, S.D., Darling, N., Mounts, N.S., and Dornbusch, S.M. (1994), "Over-time Changes in Adjustment and Competence among Adolescents from Authoritative, Authoritarian, Indulgent, and Neglectful Families," *Child Development*, 65, 754-770.

Steinberg, L., Lamborn, S.D., Dornbusch, S.M., and Darling, N. (1992), "Impact of Parenting Practices on Adolescent Achievement: Authoritative Parenting, School Involvement, and Encouragement to Succeed," *Child Development*, 63, 1266-1281.

Stevenson, H.W., Chen, C., and Uttal, D.H. (1990), "Beliefs and Achievement: A Study of Black, White, and Hispanic Children," *Child Development*, 61(2), 508-523.

Stice, E. and Barrera, M., Jr. (1995), "A Longitudinal Examination of the Reciprocal Relations between Perceived Parenting and Adolescents' Substance Use and Externalizing Behaviors," *Developmental Psychology*, 31(2), 322-334.

Tafarodi, R.W., Lang, J.M., and Smith, A.J. (1999), "Self-Esteem and the Cultural Trade-off: Evidence for the Role of Individualism-Collectivism," *Journal of Cross-Cultural Psychology*, 30(5), 620-640.

Tafarodi, R.W., and Swann, W.B. (1995), "Self-liking and Self-competence as Dimensions of Global Self-esteem: Initial Validation of a Measure," *Journal of Personality Assessment*, 65(2), 322-342.

Tafarodi, R.W., and Swann, W.B. (1996), "Individualism-Collectivism and Global Self-Esteem: Evidence for a Cultural Trade-off," *Journal of Cross-Cultural Psychology*, 27(6), 651-672.

- Taylor, S. and P. A. Todd (1995), "Understanding Information Technology Usage: A Test of Competing Models," *Information Systems Research*, 6(June), 144-176.
- Triandis, H.C. (1989), "The Self and Social Behavior in Differing Cultural Contexts," *Psychological Review*, 96(3), 506-520.
- Triandis, H.C. (1994), *Culture and Social Behavior*. New York: McGraw-Hill.
- Triandis, H.C. (1995), *Individualism and Collectivism*. Boulder, CO: Westview Press.
- Vroom, V. (1964), *Work and Motivation*. New York: Wiley.
- Wu, D.Y.H. (1996), "Parental Control: Psychocultural Interpretations of Chinese Patterns of Socialization," In S. Lau (Ed.), *Growing Up the Chinese Way: Chinese Child and Adolescent Development* (pp. 1-28). Hong Kong: Chinese University Press.
- Yamada, A.M., and Singelis, T.M. (1999), "Biculturalism and Self-construal," *International Journal of Intercultural Relations*, 23, 697-709.
- Yang, K.S. (1981), "Social Orientation and Modernity among Chinese Students in Taiwan," *Journal of Social Psychology*, 113(2), 159-170.
- Young, N.F. (1972), "Independence Training from a Cross-Cultural Perspective," *American Anthropologist*, 74(3), 629-638.
- Youniss, J., and Smollar, J. (1985), *Adolescent Relations with Mothers, Fathers, and Friends*. Chicago: University of Chicago Press.