THE IMPOSTER PHENOMENON AMONG AMERICAN AND JAPANESE ADOLESCENTS: GENDER, SELF-PERCEPTION, SELF-CONCEPT AND SOCIAL SUPPORT VARIABLES

By

TONIA DENISE CASELMAN

Bachelor of Arts
Oral Roberts University
Tulsa, Oklahoma
1985

Master of Social Work
University of Oklahoma
Norman, Oklahoma
1987

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirement for
the Degree of
DOCTOR OF PHILOSOPHY
December, 2000

THE IMPOSTER PHENOMENON AMONG AMERICAN AND JAPANESE ADOLESCENTS: GENDER, SELF-PERCEPTION, SELF-CONCEPT AND SOCIAL SUPPORT VARIABLES

Dissertation Approved:

Dissertation Advisor

Dean of the Graduate College

ACKNOWLEDGEMENTS

I wish to express my sincere gratitude to Dr. Patricia Self, my advisor, for her wisdom, direction, humor and unending patience throughout my doctoral education and this dissertation. I also want to thank my doctoral planning and dissertation committee members for their insightful suggestions and generous support: Dr. Janice Williams-Miller, Dr. Deborah Norris and Dr. Joe Weber.

I am grateful for the Marguarite Scruggs Research Grant and the John and Sue Taylor Research Grant which covered some of the costs of this research.

I also wish to thank Eiko Hata, Yasuharu Hagiuda, and Hiroko Takata for their generous hospitality to me while I was in Japan and their assistance with entry into the Japanese schools.

Finally, I wish to thank my family for their unending support and encouragement. I am grateful for my parents, Doris and Tom Caselman, who always instilled in me the belief that I could accomplish whatever I set my mind to do and who encouraged me during this entire process; to my stepmother, Suzanne Caselman, who also supported and cheered me along the way. I am thankful for my precious children, Rachel, Joshua and Anna Spicer, for their love, patience and flexibility while Mom studied and wrote. And, finally, I am grateful for my wonderful husband, Steve Jones, who carried more than his fair share of the household responsibilities and never once complained. His love, playfulness, tolerance, and encouragement sustained me throughout my education.

TABLE OF CONTENTS

Chapter Page

I. INTRODUCTION 1

II. REVIEW OF THE LITERATURE 6

Theoretical Conceptualization 7
The Imposter Phenomenon 16
Self Perception 43
Social Support 50
Statement of the Problem 59
Summary 60
Hypotheses 61

III. CHAPTER III: METHOD 64

Subjects 64
Instrumentation 65
Translation Process 73
Reliability Studies 74
Reliability Data from the Current Study 79
Research Procedure 80

IV. RESULTS 82

Statistical Procedures 82
Descriptive Statistics 83
Results from Analysis of Variance and Multiple Regressions 90
Summary of Results 104

V. DISCUSSION 106

Adolescent IP and Achievement 106
IP and Gender 107
IP and Culture 110

Chapter Page

Harvey IP Scale 123
Implications 128
Conclusions 131
Future Research 132

REFERENCE 136

APPENDIXES

APPENDIX A - PARENT LETTER AND INFORMED CONSENT 150

APPENDIX B - DEMOGRAPHIC DATA FORM 153

APPENDIX C - HARVEY IP SCALE 156

APPENDIX D - THE SELF-PERCEPTION SCALE FOR ADOLESCENTS 162

APPENDIX E - THE MULTIDIMENSIONAL TEST OF SELF- CONCEPT 170

APPENDIX F - THE SOCIAL SUPPORT SCALES FOR CHILDREN AND ADOLESCENTS 173

APPENDIX G - DATA ANALYSIS USING REVISED HARVEY IP SCALE 180

APPENDIX H - IRB APPROVAL 193

LIST OF TABLES

Table Page

1. IP Research Findings.....41-42

2. Findings from Reliability Studies.....77

3. Reliability Findings for English and Japanese Variables.....80

4. Means, Standard Deviations, and Ranges of Harvey IP Scale Scores.....84

5. Means, Standard Deviations and Ranges of the Self-Perception Profile for Adolescents.....86

6. Means, Standard Deviations and Ranges of the Multidimensional Test of Self-Concept.....88

7. Means, Standard Deviations and Ranges of the Social Support Scale for Children and Adolescents.....90

8. Analysis of Variance by Gender and Culture.....91

9. Regression Analyses by Gender for Combined Model Predicting IP.....93

10. Regression Analyses by Culture for Combined Model Predicting IP.....95

11. Regression Analyses by Culture for Self-Perception Variables Predicting IP.....98

12. Regression Analyses by Culture for Self-Concept Variables Predicting IP.....101

13. Regression Analyses by Culture for Social Support Variables Predicting IP.....103

G1. Means, Standard Deviations and Ranges of Revised Harvey IP Scores.....181

Table Page

G2. Analysis of Variance by Gender and Culture (Revised Harvey IP Scale).....182

G3. Regression Analyses by Gender for Combined Model Predicting Revised IP.....184

G4. Regression Analyses by Culture for Combined Model Predicting Revised IP.....186

G5. Regression Analyses by Culture for Self-Perception Variables Predicting Revised IP.....188

G6. Regression Analyses by Culture for Self-Concept Variables Predicting Revised IP.....190

G7. Regression Analyses by Culture for Social Support Variables Predicting Revised IP.....192

CHAPTER I: INTRODUCTION

The Imposter Phenomenon (IP) was first identified in the clinical work of Clance and Imes (1978) as an internal experience of fraudulence despite one's external successes. Harvey and Katz (1985) defined IP as a psychological pattern rooted in intense, concealed feelings of fraudulence when faced with achievement tasks. Initially identified in high achieving women, it was later found to exist among men as well, although the research is contradictory as to whether or not it is more prevalent among women (Cozzarelli & Major, 1990; Harvey, 1981; Topping, 1983; Topping & Kimmel, 1985; King & Cooley, 1995).

Those experiencing IP attribute success and achievement to external sources such as luck, charm, good social contacts, and hard work rather than to internal qualities of intelligence and ability. Imposters do not believe that their successes are warranted; they feel inadequate and undeserving. Despite academic achievements, advanced degrees, and professional status, imposters believe that they have deceived others regarding their intellect and must not allow others to discover their lack of competence (Clance & Imes, 1978; Harvey & Katz, 1985).

Research has supported the theoretical concept of IP. Although its features include introversion (Holmes, 1986), self monitoring and anxiety (Topping, 1983), the Imposter Phenomenon is a distinct construct. It includes the fear of evaluation, the fear of not being able to repeat success and the fear of not being able to perform as well as others. Other characteristics shown in the literature

include poor interpersonal flexibility (Hays & Davis, 1993), fear of success as well as fear of failure (Fried-Buchalter, 1992), defensiveness (Beard, 1990), low self-esteem (Kertay, 1991) and perceptions of a strong family of origin's achievement orientation (King & Cooley, 1995).

IP is undiscriminating in its presence among various groups. It has been identified in the fields of law, nursing, medicine, social work, psychology, academia, and business (Alvarez, 1995; Byrnes & Lester, 1995; Flewelling, 1985; Fried-Buchalter, 1992; Topping, 1983). It has also been identified among undergraduate students (Grays, 1992; King & Cooley, 1995) and graduate students (Ewing, Richardson, James-Myers, & Russell, 1996) and, in two studies, among high school students (Stahl, Turner, Wheeler, & Elbert, 1980; Cromwell, 1990).

It has been hypothesized that IP feelings begin sometime in childhood. Clance and O'Toole (1987) suggested that false and non-affirming family messages contribute to the development of imposter feelings. Grays (1992) found that while living in their families of origin, imposters often felt misunderstood by what they described as emotionally distant parents.

The cost of IP to its sufferers is far reaching. It impacts quality of life through affect, cognition and performance. Anxiety, depression, frustration, poor self-confidence, low self-esteem, and poor interpersonal relationships are a result of chronic feelings of fraudulence (Clance & Imes, 1978; Harvey, 1981; Harvey & Katz, 1985; Topping, 1983).

In view of the fact that the identification of IP feelings requires certain cognitive developmental advances (the ability to be introspective), research has primarily been limited to adults. However, adolescence is a developmental period when much self-reflection takes place. True self-awareness and introspection are poignant during adolescence and play an important role in identity formation and authenticity. Therefore, the study of IP during this developmental period could prove valuable in our understanding of the concepts and etiology of IP.

Only one study has examined the presence of IP in a non-Western culture (Chae, Piedmont, Estadt, & Wicks, 1995). This study found IP to be present among Korean Catholic adults but to a lesser degree than Western populations. It was hypothesized that a more rigidly defined hierarchical system helps individuals to maintain a better sense of identity and authenticity. However, it may be that the more sociocentric nature of Eastern cultures creates a more interdependent (and less isolated) self-perception.

The exploration of IP in varying cultures helps us to study how an authentic or fraudulent self is constructed through acceptance of cultural norms and participation in cultural practices. One's region of origin is an important source of self-structures and self-processes (Markus, Mullally, & Kitayama, 1997). It is therefore valuable to, not only examine the prevalence of IP cross-culturally, but to identify both universal and unique variables which contribute to its development and maintanence.

Although low self-esteem and IP have been identified as related constructs (Harvey, 1981; Topping, 1983), no study has specifically examined the relationships between IP and the multiple domains of self-perception or self-concept. Harvey and Katz (1985) suggested that imposters tend to compartmentalize various aspects of the self and harbor imposter feelings in only selected areas of their lives. Clance and Imes (1978) suggested that an imposter's sense of intelligence or competence is the primary domain in which the imposter feels like a fraud. However, other specific areas of self-perception and self-concept have not been examined.

Imposters have been identified as introverts (Lawler, 1984; Prince, 1989) and as being indifferent and inattentive to the thoughts and feelings of others (Cromwell, 1990). They see themselves as socially inadequate (Grays, 1992). A similar construct to IP is "false self" behavior which has been identified in adolescents who do not have significant others to validate and support their thoughts and experiences (Harter, Waters, Whitesell, & Kastelic, 1998). These findings support symbolic interaction theory which maintains that self perceptions are socially constructed (Baldwin, 1897; Cooley, 1902; Mead, 1934). They also suggest that an inner sense of connection to others may be an organizing feature of the development of an authentic sense of self (Miller & Stiver, 1997). Although it is accepted that imposters limit their social interactions, it is not clear if they do so in limited settings or in all of their environments.

This study focuses on the vulnerability of high school juniors and seniors to IP. It contributes to the existing research in that it expands the study of IP to a

younger, more average population and examines various domains of self-perception, self-concept and social support as influences on IP. In addition, it expands the study of IP to an Eastern culture in order to examine the generalizability of the construct and to explore the differing variables which contribute to its development.

CHAPTER II: REVIEW OF THE LITERATURE

The purpose of this critical review of the literature is to examine theory and the empirical research related to the etiology and maintenance of the Imposter Phenomenon (IP). The relationships between IP, gender, self-perception, self-concept and social support serve as the organizing framework for this review. The review is divided into seven sections: Theoretical Conceptualizations, the Imposter Phenomenon, Self Perception, Social Support, Summary, Statement of the Problem, and Hypotheses.

The theoretical conceptualizations section explores theorized determinants of self-perception and self-esteem. It looks at the historical theories of William James and the symbolic interactionists, and highlights newer feminist self-in-relation theory as conceptual models for this research. Attention is also given to theories of cultures' influence on self-perception.

The second section focuses on the research surrounding IP, as first identified in the clinical observations of Clance and Imes (1978). It examines both consistent and contradictory findings regarding the psychological construct of IP. Specific attention is directed at the empirical research around gender, achievement and personality variables. Note is given to the only cross-cultural study done examining IP.

The third section of the review focuses on the empirical research around self perception. It examines the literature regarding multidimensional models of self perception, along with how importance ratings of particular domains effects

overall self-esteem. It cites the research regarding accuracy of self evaluations and developmental aspects of self-perception. Finally, it examines the empirical research on IP and self perception.

The fourth section of the review focuses on social support. It examines the empirical research regarding the positive outcomes of having social support as well as the various sources and aspects of social support. It focuses on the literature regarding level of social support and authentic vs. false self behavior. Finally it investigates imposters' sense of social support and their social support systems.

The summary brings together IP, self-perception and social support theories, and the statement of the problem addresses gaps in the research regarding IP. Finally the hypotheses section delineates the hypotheses formulated from this critical review of the literature.

Theoretical Conceptualization

Just as humans have needs to find meaning and create theories about our world, we also have needs to make meaning of our own personal experiences - especially as we develop a construction of the self. Self perception, or self-concept, is the mental representation we have of ourselves. It is shaped through our experiences and our interpretations about those experiences. It becomes a cognitive schemata about the self which organizes and guides information from our experiences. It is what comes to mind when we think about ourselves.

Self-perception is both enabling and limiting in that it filters information by highlighting some types of inputs and screening others (Jopling, 1997). Harter

(1999) asserts that self-representations, or self-perceptions, serve three critical functions: (1) organizational, (2) motivational, and (3) protective. As an organizational function, self-perception provides expectations and guidelines from which one can interpret and give meaning to experience. As a motivational function, self-perception stimulates one to pursue specific goals and behaviors and sets the standards which one intends to reach. As a protective function, self-perception attempts to maintain a favorable impression of the self by maximizing pleasure and minimizing pain.

The self is both a cognitive and a social construction. The determinants of self perception and self-esteem are theorized to come from (1) the discrepancies between one's competencies and the value one places in those domains and (2) the attitudes and messages one receives from significant others (Harter, 1999). The historical roots of this two-part model come from James (1892) and Cooley (1902), Mead (1934) and Baldwin (1897).

Discrepancies Model

James (1892) maintained that it is not only one's perceptions of actual attributes which is relevant for a positive self concept, but it is the discrepancy between one's actual success and one's aspirations. If one's perceived success is equal to or greater than one's pretensions, self-esteem, or self-perception, within that particular domain is high. If the discrepancy between the real and the ideal self in a particular domain is too large it is indicative of a poor self-perception and possibly of maladjustment.

Crucial to a Jamesonian perspective is the understanding that inferiority in an area considered unimportant to the self would not adversely affect one's self-concept or self-esteem. An example of this would be if one were to judge oneself as having poor athletic abilities, but did not particularly value athletic adeptness, her self-perception would not be negatively affected. Therefore, an individual with high self-esteem would be able to diminish the importance of a domain in which she is not skilled. James (1892) maintained that giving up certain pretensions can be as helpful in boosting self-esteem as reaching one's goals.

However, adopting or rejecting particular standards/pretensions is not simply an autonomous decision made on the part of the individual. Internalized values of the particular culture within which one lives contributes to the importance we place on particular domains. This suggests another dimension of self-perception development - a more social, interactive model which is described by the symbolic interactionists.

Symbolic Interactionist Model

The symbolic interactionists (Baldwin, 1897; Cooley, 1902; Mead, 1934) maintained that self perceptions are socially constructed. They asserted that through verbal interactions with others one adopts the opinions that are perceived to be held by those others. Significant others become a mirror which one looks into in order to get a look at the self - known as the "looking glass self".

Symbolic interactionists contend that social interactions with others shapes the self beginning in childhood through: (1) the *imitation* of significant

others' behaviors, values and attitudes, (2) the adjustment of behavior to meet the *approval* of significant others, and (3) the adoption of the *opinions* that the significant others are perceived to hold toward the self (Harter, 1999). Given that these processes take place in multiple social contexts only adds to the complexity of the development of the sense of self.

Cooley (1902) suggested that these reflected evaluations become one's own through a three part process: (1) the illusion of how we appear to the other person, (2) the illusion of that person's judgment, and (3) the affective reaction to these reflected evaluations. Cooley asserted that these components become internalized and are gradually separated from their social sources.

Mead (1934) held that individuals adopt a generalized perspective which is influenced by a societal perspective. He asserted that the judgments of significant others were combined and psychologically weighted. Although he was not explicit about how these judgments were weighted, later researchers have examined various areas of social support/influence.

Baldwin (1897), Cooley (1902) and Mead (1934) maintained that our sense of self begins in our perceptions of how significant others think and behave towards us. Messages of approval and support that are communicated to the child are internalized into the child's sense of self. Close, nurturing relationships strengthen the potential for a positive identity through the positive evaluations of others, a sense of meaning and a place to work through problems.

Self-in-Relation Theory

The symbolic interactionists laid the conceptual groundwork for the study of self in social interaction. However, their emphasis was on the direct communication of others' evaluations. More recent theories on the development of the self in social interactions have considered how the self also internalizes affective, verbal, motoric and behavioral information from significant others (Harter, 1999). In particular, self-in-relation theory has addressed some of these areas through a feminist perspective.

Classical, traditional theories of human development have only minimally addressed social support in the development of the self. They have primarily focused on the development of an individual's sense of autonomy. Freud's, Piaget's, Erikson's, and Kohlberg's theories all had themes of separation, independence, and individualism (Erikson, 1950; Freud, 1933; Kohlberg, 1981). Based on these theories, concepts of the ideal self in our culture have included concepts of being self-reliant, self-sufficient and self-governing. These theories of autonomous development have supported sharply defined boundaries between the self and other and, consequently, have tended to examine development apart from the context of relationships.

Challenges to these theories have recently come from those examining the development of women (Gilligan, 1982; Jordan, Kaplan, Miller, Stiver, & Surrey, 1991; Miller, 1986). These theorists have proposed an alternative description for women's development, suggesting that women form their sense of self through ongoing connections with others. This inner sense of connection to others is

proposed to be an organizing feature of development. Rather than separation-individuation, these theorists have proposed that women develop through relational-differentiation.

Chodorow (1978) proposed that the initial environment of the young child is radically different for the male child than it is for the female child. Because caregivers tend to be female, there is more identification between the mother and the female child than there is between the mother and the male child. This creates a detachment for the male child and a connection for the female child. This connection for the female child continues throughout childhood as the female child continues to identify with and move closer to the mother.

Miller (1986) described one of the results of women's development as a process of becoming other-focused. Being an other-focused individual causes women to be concerned with caring for others, subordinating personal needs in order to meet the needs of others. This attention to others creates a clarity and expertise regarding the thoughts and feelings of others, but a limitation in the understanding of the thoughts and feelings of the self - a suppression of one's authentic self.

Miller and Stiver (1997), expanding on these concepts to both genders, contended that from infancy on, humans want and need to be connected to others. They suggested that individuals learn about their own thoughts and feelings by being in "mutually empathic relationships" (p.44). By being in these growth-enhancing relationships, one is able to develop a sense of authenticity by experiencing the freedom to speak one's true thoughts and feelings. One's

uniqueness is supported and accepted by the other. They differentiated the being *for* others (suppressing one's own needs for the other) and the being *with* others (mutually supporting one another's needs and expressions of self).

Harter (1999) described the development of self within supportive and validating relationships as "relational self-worth" (p.308). She asserted that the support provided in mutually empowering relationships is similar to Rogers' (1951) unconditional positive regard - where one is loved and supported for who one is as a person. This would be the antithesis of conditionality, defined as the extent to which one feels that support is only available if one meets high expectations. Conditionality undermines self-worth because it does not validate the self as a person but specifies behavioral conditions.

Gilligan (1982), along with Miller and Stiver (1997), proposed that the lack of authenticity in one's sense of self evolves through the loss or suppression of one's "voice" in relationships. The loss of voice is the suppression of one's behaviors, opinions, thoughts and feelings. The demands of significant others along with the need to gain their approval (conditionality) may lead to a loss of voice and, consequently, authenticity.

Self-in-relation theory suggests that the healthy development of the self happens in interdependent, mutually empowering relationships. Although initially conceptualized as applying to women's development, it has now expanded to address the development of both genders. Other views of this interdependent sense of self have also been addressed in cultural psychology.

Cultural Differences in Self-Perception

A Western view of the self is that of a very separate individual - independent, self-reliant, autonomous. Based on this view Western thinking stresses attending to the self, the importance of asserting the self, and the awareness of one's differentness. Other cultures, however, view the self as a connected piece of the whole family/community/society. This view stresses attending to the group, fitting in with others, and the awareness of personal responsibility for group harmony. A good example of these different perspectives was given by Markus and Kitayama (1991):

> A small Texas corporation seeking to elevate productivity told its employees to look in the mirror and say "I am beautiful" 100 times before coming to work each day. Employees of a Japanese supermarket that was recently opened in New Jersey were instructed to begin the day by holding hands and telling each other that "he" or "she is beautiful." (p.224)

Markus and Kitayama (1991) differentiate these two views of the self as *independent* and *interdependent*. The former is demonstrated in large segments of the U.S. as well as many Western European cultures; the latter is exemplified in many Asian, African, and Latin-American cultures. While both independent and interdependent views of the self use social comparison for self-validation, the interdependent view sees these others as an indivisible part of the setting to which one is assimilated. Sociocentric cultures see others as actively and continuously participating in the definition of the self.

In Japan, the word for self is *jibun* - one's share of the shared life space (Markus & Kitayama, 1991). Rather than referring to a constant ego, it suggests a more fluid concept which changes in context. Self is confirmed through interpersonal relations.

Theories of cultural psychology suggest that these differing self-perceptions effect the psychological processes of emotion, and cognition. Because emotional responses involve the self, emotional experience and expression depends on the nature of one's self-perception as independent or interdependent. Emotions such as anger and pride have the individual's needs, goals, wishes, etc. as the primary reference point (*ego-focused*) and cultivate and promote independence and separation. Other emotions such as sympathy and shame have another person as the primary reference point (*other-focused*) and foster interpersonal connection (Markus & Kitayama, 1991).

Cognition is also affected by independent and interdependent self-perceptions. Because cognitive representation guides attention, cultural differences in self-perception influence one's focus, frame of reference and thinking (both content and process). The greater familiarity one has with a particular area, the more elaborate schemata one has for problem-solving around that specific domain (Sheder, Goodnow, Hatano, LeVine, Markus, & Miller, 1998).

Differing conceptualizations (and familiarities) of the self create various ways of thinking and knowing about the world, especially as it pertains to self, others and community. Carpenter (2000) demonstrated in her research with 16

cultures that where self-definitions were interdependent, attributions of failure were more external, and where self-definitions were independent, attributions of failure were more internal.

In summary, theory suggests that self-perception is both a cognitive and a social construction. While humans are certainly active agents in the development of their own self-perceptions, we are also dependent upon the nature of our social interactions and the culture in which we live. The multiple domains in which we judge ourselves, the discrepancies between our real and ideal selves, the importance we place on particular domains, the perceptions we hold of significant others' views of us, and the emotional connection we feel with others all appear to contribute to one's sense of self and one's sense of authenticity.

The Imposter Phenomenon

Internal attributions for failures or external attributions for successes are associated with negative self-concepts and low self-esteem (Harter, 1999). The psychological construct labeled the Imposter Phenomenon is used to describe subjective feelings of phoniness when objective information suggests achievement or success. Originally the term was coined by psychologists Clance and Imes (1978) after they observed a sample of 150 high-achieving women. While observing these women in individual and group therapies, and in classes taught by the psychologists, they found that, despite these women's numerous accomplishments, they continued to have strong convictions that they were not as intelligent or as capable as their peers.

Despite high scores on standardized tests, advanced degrees and professional recognition, these imposters attributed their successes to luck or charm or to some kind of mistake. When an honor or promotion was given, these women would feel that others had overestimated their abilities and that they were undeserving. They felt that they did not belong among bright, competent people. Subjects were quite skillful at negating objective external evidence that suggested that they were intelligent and qualified. Due to these intense beliefs of fraudulence, these women lived in constant fear of being discovered as imposters. They went to great lengths to avoid being "discovered" by avoiding risks, keeping quiet and working hard.

Clance and Imes (1978) hypothesized that women are more vulnerable to IP because of sex-role stereotyping. They posited that men expect to succeed and attribute their successes to enduring, internal qualities such as intellect or ability, and that women don't expect to succeed but when they do, they attribute their successes to temporary, external qualities. They also suggested that because girls are socialized to be less competent and intellectual than boys, they avoid success. When they actually do experience achievements due to competency and/or intelligence, they doubt internal causes of their successes.

Clance and Imes (1978) noted that this phenomenon or syndrome was chronic and self-perpetuating. They described it as the Imposter Cycle:
The person faces an exam or project or task; she experiences great doubt and fear; she questions her ability to succeed this time; she experiences intense anxiety, so works hard and overprepares or procrastinates and then prepares in a

frenzied manner; she succeeds and receives positive feedback. The whole cycle is then reinforced.

Clance and Imes (1978) hypothesized that there were two types of families which created vulnerability to IP. In the first family dynamic, a sibling was identified as the intelligent one while the future imposter was identified as the social or sensitive one. The future imposter internalized the family role and subsequently attributed her successes to her sociability or sensitivity.

In the second hypothesized family dynamic, the imposter was idealized and said to be superior in every way. Her family verbalized their belief that she could do anything and do effortlessly. As the imposter experienced typical difficulties or mistakes she subsequently doubted her abilities. In both types of families the imposter appeared to emphasize the discrepancies between her family's view of her and her own sense of herself.

In an attempt to further examine IP among high achieving females, Stahl, et al. (1980) conducted a survey of high achieving black high school girls regarding their success attributions. They found that 55% attributed their achievements to reasons other than ability or intellect. Other findings among these subjects included 28% who credited their accomplishments to luck 50 - 75% of the time, 79% who felt that teachers overestimated their intellectual abilities and 68% who felt that parents overestimated their intellectual abilities.

These findings were notably different from their earlier pilot study using college freshmen. In that study Stahl found that 93 percent of her subjects attributed their accomplishments to factors other than intellectual abilities. Her

explanation for the discrepancy in these two findings was that moving from the "top position" in high school to a "bottom position" in college might increase imposter feelings based on the newness of the situation. Implications from this research suggested that new situations or atypicality may contribute to IP.

Harvey (1981) investigated IP using undergraduate and graduate students. She developed a 14-item, Likert-type scale as a standardized measure of IP, correlating scores with attributions of success. Subjects were given seven situations relevant to academic success and asked to rate how much ability, effort and interpersonal assets contributed to each success. Contrary to her expectations, high and low IP groups could not be differentiated by ability or effort attributions. But, consistent with Clance and Imes' (1978) conceptualization of IP, high and low IP groups *could* be differentiated by interpersonal attributions. Interpersonal attributions included assets such as attractiveness, charm, and sensitivity to expectations. Implications from this study were that imposters felt that they could manipulate and fool others into believing that they were competent despite their own beliefs that they were incompetent.

Harvey (1981) also examined IP as it related to self-monitoring and self-esteem. She found that six percent of the variance in IP scores could be accounted for by self-monitoring behavior and nine percent of the variance in IP scores could be accounted for by self-esteem. Although there were some relationships among the variables, the relationships were not strong enough to justify the inclusion of IP into either the self-monitoring or the self-esteem constructs.

Confirming her hypothesis that experience would correlate negatively with IP, Harvey also found that first-year graduate students experienced IP significantly more than advanced graduate students or senior honors students. She concluded that new situations and self-perceived atypicality were related to IP. New positions and unfamiliar roles could produce imposter feelings that might later subside.

In further examining IP and atypicality Harvey (1981) used a mid-level career sample. She found that subjects who perceived their gender to be atypical of their careers had higher IP scores than those who perceived their gender to be more typical of their careers. She also found that those whose educational level was atypical in their families of origin had higher IP scores than those who felt more typical in their families.

Hirschfield (1982) examined several variables which were expected to predict IP. Using a sample of 80 white professional women (mean age 36.2 years - 55% of whom had Masters degrees and 35% of whom had a Ph.D.s or M.D.s) she explored four areas as they pertained to IP: (1) the discrepancy between self-perception and perception of characteristics necessary to be successful in one's career, (2) retrospective perceptions of parents' attitudes and expectations regarding career goals, (3) tolerance for ambiguity, and (4) attribution of causality in career success.

Her results showed that the average subject did not experience imposter feelings. However, it is noted that her subjects were volunteers and had worked an average of 7.5 years in their current positions. She also did not measure IP

with an instrument with demonstrated validity but rather, used an adapted self-acceptance scale which tapped the degree of self-acceptance in one's career. These factors may have influenced this study in such a way that IP was not accurately reflected in the general high-achieving population.

Hirschfield's findings did, however, support the premise that those subjects with high IP tended to attribute their achievements to luck and effort rather than to ability. Subjects' imposter feelings were also positively correlated with the degree to which their parents held a traditional view about women and careers choices, supporting Clance and Imes' (1978) hypothesis of sex-role stereotyping as a contributor to IP.

Topping's (1983) research as described in Topping's and Kimmel's article (1985) used a sample of 157 female and 128 male faculty members from two southeastern universities. Like Harvey's (1981) research, Topping's study showed only moderate relationships between IP and self-esteem, and IP and self-monitoring. This gave additional support for the validity of the imposter construct as measured by Harvey's scale. Topping's findings also supported Harvey's (1981) findings that IP scores tend to decrease as the level of experience increases.

Topping also found a positive correlation between IP and trait anxiety. This fit the clinical observations of Clance and Imes (1978) that generalized anxiety is one of the features of IP. Topping hypothesized that the relationship between IP and anxiety may be due to the imposter's recognition that s/he is

creating a false impression and faces the possibility of being exposed. However, it is also possible for anxiety to precede feelings of IP.

Cromwell (1990) investigated IP with a younger sample of 105 English honors students from a suburban high school (grades 9-12). She found that 20.2% of her sample made up the imposter group - a similar finding to Harvey's imposter group of undergraduate and graduate college students. She also found that the number of subjects identified with IP remained constant across grade level. This contradicted earlier research (Harvey, 1981; Topping & Kimmel, 1985) which suggested that longevity in an environment would decrease IP scores.

Using the Irrational Beliefs Test (IBT) Cromwell found that a combination of High-Expectations, Anxious Overconcern, Dependency, and Emotional Irresponsibility significantly differentiated the imposter group from the nonimposter group. In a multiple regression analysis IP was best predicted by the scales Problem Avoidance and High Self-Expectations. These two subscales represented 22% of the variance.

From these findings Cromwell asserted that imposters are perfectionists who establish unattainable standards for themselves and, consequently, experience excessive anxiety. This anxiety then leads to attempts to evade the situations where the unrealistic goals have been set. Consequently, imposters choose risk-free tasks or discontinue tasks when difficulties arise. Even among this younger high school sample, the data supported Clance and Imes' (1978) and Toppings' and Kimmels's (1985) conceptualization of IP as anxious high achievers who do not feel capable of meeting expectations. Cromwell

hypothesized that it is these irrational cognitive processes which mediate IP symptoms.

Langford's (1990) research explored goal orientations, personal theories of intelligence and IP. His subjects were 98 female and 67 male undergraduate students. Langford's study showed that the variable with the strongest correlation with IP was the Performance Goal Questionnaire, a self-report questionnaire which taps the degree to which one uses a performance goal pattern in school situations. In addition to the positive correlation with the Performance Goal Questionnaire, IP was also positively correlated with a performance goal response pattern to an anagrams task.

These two findings supported Langford's hypothesis that imposters would be motivated by performance goals rather than by learning goals. Although performance concerns are a central and defining component of IP, this was the first study to explicitly examine IP and performance goals. Langford's findings suggest that imposters are motivated to do well due to others' evaluations of them rather than to increase their own sense of competence or mastery. They have a strong need to look smart to others, but this need creates a fear of failure and creates a vulnerability to depression and loss of self-esteem when performance is less than expected. This finding validates Clance and Imes' (1978) construct of IP as the need to appear competent and smart to others.

Langford also found a significant relationship between those subjects who possessed an entity theory of intelligence and those with IP. Persons who hold to an entity theory of intelligence believe that intelligence is a fixed, global trait

rather than a flexible, fluid quality which increases with knowledge and education. Langford contended that this perception of intelligence makes one more vulnerable to performance goals in achievement. Again consistent with Clance and Imes' (1978) original concept of IP, an entity theory of intelligence leads to anxiety and shame regarding mistakes or failures.

IP and Gender

The Imposter Phenomenon was first conceptualized as a gender issue. Clance and Imes (1978) asserted that IP was primarily limited to women due to cultural sex-role expectations. Subsequent research regarding gender and IP has examined prevalence of IP among females and males, sex-role identification, and personality and behavioral similarities and differences among imposters of each gender.

Prevalence. Assuming IP to be strictly a female phenomenon, Stahl, et al.'s research (1980) appeared to support this hypothesis. They examined a sample of 41 high achieving African American female high school seniors who were majoring in science. Using their own 56 item questionnaire, consisting of scaled, closed and open-ended questions, they found that 55 percent of their subjects indeed did not attribute their successes primarily to intelligence. This was a very large proportion of high achieving girls who did not acknowledge their abilities. The researchers concluded that IP exists at a high rate among this population but it could not be determined to what degree race, gender or atypical career choice contributed to the high incidence of IP in this study.

From Toppings (1983) dissertation, Topping and Kimmel (1985) reported surprising results regarding the prevalence of IP among the genders. From a sample of 285 university faculty, it was noted that, although both groups had fairly low IP scores, male faculty's IP scores were significantly higher than female faculty's IP scores. There was also a significant negative correlation between ability attributions of success and IP among males but not among females. This study contradicted the idea that IP primarily effected women and established that gender differences in IP are more complex than previously believed.

Among an adult Catholic Korean sample there was a slight correlation between IP and age among female subjects ($r = -.15$; $p < .01$) but not for male subjects (Chae et al., 1995). This showed that younger women had higher scores than older women, suggesting either a developmental or an experiential aspect to IP among women.

Other studies using different samples and different measures of IP have failed to show significant gender differences in the incidence of IP scores. No gender differences in the prevalence of IP were found among graduate and undergraduate students (Bussotti, 1990; Harvey, 1981; Kertay, 1991; Langford, 1990; Lawler, 1984), and adult business persons (Dingman, 1987).

Sex-role identification. Clance and Imes (1978) hypothesized that sex role expectations contributed to the development of IP. They maintained that since achievement is not expected for women in our culture, women have lower expectations for themselves. Then, when unexpected achievement is experienced, women need to find temporary explanations (luck, charm, a mistake) rather than to attribute it to themselves.

Based on the sex role premise in her earlier work with Clance, Imes (1983) hypothesized that high achieving men would attribute their successes to stable causes such as ability and high achieving women would attribute their successes to temporary causes such as luck or effort. She also hypothesized that those subjects with internalized feminine personality characteristics would attribute their successes to IP-related conditions and subjects who were in sex-role incongruent fields would attribute their successes to IP-related conditions. She selected 67 male and 83 female university faculty members as subjects. She used the short form of the Personal Attributes Questionnaire (PAQ) to measure Feminine, Masculine, Androgynous (i.e. perceiving oneself as having *both* feminine and masculine qualities) and Undifferentiated (i.e. perceiving oneself as having *neither* feminine or masculine qualities) personality characteristics, and designed an Attribution Questionnaire which listed ten achievements common to university faculty. For each achievement subjects were asked to rate the degree to which they attributed this achievement to ability or to IP-related factors.

Contrary to her expected outcomes, Imes found that (1) male and female faculty members did not differ in their attribution of both ability and effort to

their achievements, (2) high achievers with Feminine personality characteristics did not differ from high achievers with Masculine or Androgynous personality characteristics in their attribution of ability and effort to their achievements, and (3) subjects in sex role congruent fields and subjects in sex role incongruent fields did not differ in their attribution of ability and effort to their achievements. She did find, however, that the Undifferentiated group was more likely to attribute success to IP-related factors. Her results suggest that, rather than internalized feminine personality characteristics contributing to IP, a *lack* of a sense of feminine or masculine personality contributes to IP.

Eschbach (1990) examined the influence of sex-role on IP intensity among 226 undergraduate students. She found that sex-role indirectly effected IP intensity through the mediating variable of self-concept. More specifically, sex-role scores towards the androgynous typology led to high self-satisfaction and a positive global self-concept, which then led to lower IP scores. Eschbach proposed that prior studies which examined the relationship of sex-role and IP may not have yielded significant results because of the sizable indirect effect on IP intensity.

McIntyre (1990) examined imposter feelings, sex-role attitudes and professional status among 117 white "mid-adult" (age range 30 - 50) urban American women. These women were divided into three work role groups: homemakers, traditionals and nontraditionals. Women were classified as homemakers if they had not been gainfully employed either inside or outside the home for at least 4 years; women were classified as traditional or nontraditional

based on the sex ratio in their occupations. Occupations where 30% or less of the workers were female (according to the U.S. Statistical Abstract) were considered nontraditional and occupations where 31% or more of the workers were female were considered traditional.

Her findings showed that traditionals scored significantly higher than nontraditionals in IP scores, but homemakers did not differ from nontraditionals. This was inconsistent with theories that gender socialization contributes to IP. This data also suggests that IP may exist beyond high achieving women. McIntyre speculated that the traditionals may have been more dissatisfied with their status and felt caught in the "middle" in terms of sex-role attitudes.

Personality and behavioral similarities and differences. Dingman (1987) found that social mobility correlated with high IP scores for women but not for men. Her sample consisted of 25 males and 25 females in a large metropolitan's business community. She speculated that while men expect to achieve success through upward mobility in their careers, women may experience more discomfort with this upward movement.

Beard (1990) specifically examined gender differences in IP among 63 undergraduates. Using the Personality Research Form (PRF) she found that both female and male imposters scored significantly lower on the subscale Play (i.e. playful, happy, frolicsome) and significantly higher on the subscale Defendence (i.e. defensive, guarded). This finding suggested that *both* female and male imposters tend to be more serious, sedate and self-protective. Both genders of imposters have difficulty accepting criticism and may rationalize.

Gender differences in personality traits were also found among subjects with high IP scores. Beard's female imposters showed significant correlations with high scores on Defendance and low scores on Affiliation, Change, Exhibition, Impulsivity, Nurturance and Play. Beard's male imposters showed significant correlations with low scores on Order and high scores on Change, Defendance, Endurance and Impulsivity.

The results of this study indicate that there may be major differences in the personalities of male and female imposters. In Beard's sample, female imposters were defensive, fearful of new situations, avoidant of change and interpersonal connections, cautious, and self-protective. They did not seek out the company of others and had little ability or desire to care for others. They experienced anxiety with any type of change and had little or no sense of spontaneity.

Male imposters, however, showed a very different profile. Although they, too, were guarded and defensive, they were more accepting of social interactions and did not tend to withdraw from social contact. Unlike female imposters, male imposters actively sought out sought change and were spontaneous and comfortable with disorder and disorganization. They were impulsive and were attracted to new experiences despite any anxieties or concerns. Although they questioned their abilities to succeed, these concerns did not hinder their attempts at new challenges.

Kertay (1991) found gender differences in IP and self-efficacy. When analyzed by gender, General Self-Efficacy, Locus of Control, and Physical Self-

Presentation Confidence scores contributed to the women's equation, accounting for 37% of the variance in IP scores. For men, Physical Self-Presentation Confidence, General Self-Efficacy, and Social Self-Efficacy contributed to the equation, accounting for 47% of the variance in IP scores.

Kertay concluded that male imposters are best described as having a generalized low self-efficacy expectation and that female imposters experience the same generalized low self-efficacy expectation but have an added dimension of an external locus of control. He described these findings as consistent with theories regarding gender-related socialization which teaches women to focus on relationships rather than to individual achievement.

In examining IP with Type A personality (defined as persons who are work-oriented, competitive, impatient, and sometimes hostile) with a sample of 83 students enrolled at a regional state university, Hayes and Davis (1993) found an interaction effect between the genders. As Type A scores increased for men so did their imposter scores, but as Type A scores increased for women, their IP scores decreased. Although this appeared counterintuitive, the authors suggested that perhaps male subjects in this study felt pressured to adopt a Type A personality style in order to appear more masculine. If this occurred at the expense of suppressing one's true self, then feelings of fraudulence might be increased.

In summary, gender differences in IP do not appear to be related to simple scale score differences or simple feminine and masculine sex-role traits, but rather to more complex patterns of relationships. There appears to be evidence

that the characteristics which create IP tendencies in females are quite different from the characteristics which create the same phenomenon among males.

IP and Achievement

IP was originally identified in a high-achieving female population (Clance & Imes, 1978) and was hypothesized to be an integral condition of the phenomenon. However, further research in level of achievement and achievement tendencies and IP have been less than convincing.

The only study which seems to support Clance and Imes' (1978) initial conceptualization of IP as existing among high-achievers is Harvey's (1981) research which divided a sample of honors and nonhonors students. Comparing mean IP scores of both groups she found a mean of 34.56 for the honors students and a mean of 29.33 for the nonhonors students. The results indicated a significant difference ($p < .05$) with a one-tailed t-test, suggesting that high achievement is a component of IP.

Other studies found no significant relationship between IP and grade point average (GPA) (Beard, 1990; Cromwell, 1990; Langford, 1990). In addition, Chae et al. (1995) found a nonsignificant correlation between IP and education among Korean Catholic adults.

Beard's (1990) study with female and male undergraduates also used a median split on GPA to examine high-achieving and low-achieving imposters. No significant differences were found for intellectual abilities (IQ) or personality traits. These findings suggest that, unlike the regular population, ability may not be a reliable predictor of achievement among imposters. They also indicate that

personality characteristics of imposters remain constant across achievement levels.

Eschbach's (1990) study with female undergraduate students proposed that achieving tendency would directly effect IP intensity. Achieving tendency was operationalized using the Mehrabian Measures of Achieving Tendency (MMAT) which measures one's motive to approach success and avoid failure. However, the causal link from achieving tendency to IP intensity only approached significance and was in the opposite direction from her hypothesis. This implied that a lower achieving tendency may actually lead to IP intensity.

Grays (1992) reported in her research among female undergraduate students that imposters were unlikely to report that they ranked in the upper 10% of their high school class. However, it was not determined whether this was due to these imposters underrating themselves or due to the fact that they may not have been high achievers. Grays data did show that out of 106 identified imposters, 79 could be classified as nonachieving while 27 could be identified as achieving. This finding lends support to the notion that IP may exist across a variety of levels of ability and achievement.

Cohen's (1990) research examined IP and achievement using 31 female and 61 male (N=92) middle managers and technical specialists from six organizations. Representing a variety of industries (insurance, tobacco, oil exploration, public utilities, administrative, office technology and manufacturing) her study was somewhat unique among the IP literature in that her sample had a larger proportion of male subjects than female subjects. Level

of achievement (operationalized as (1) direction of movement and (2) salary change in the workplace) was *not* found to be predictive of IP in this study. This finding suggests that imposter feelings may not be limited to high-achieving individuals and may actually be found across all levels of achievement.

Cohen also found that 12% of her sample had refused a promotion at least once. History of refusing promotions was found to correlate with high IP scores on two different measures of IP. The taking oneself out of a higher position due to high levels of anxiety evoked from a sense of incompetence appears to support Clance and Imes' (1978) conceptualization of IP stemming from a sense of incompetence but it does not really support the construct of IP as a phenomenon which exists only among the high-achieving. Cohen points out, however, that refusing promotions may be a behavior which expresses IP rather than an underlying construct which explains IP.

Although IP was initially hypothesized to exist uniquely in high-achieving females (Clance & Imes, 1978), most of the empirical research appears to contradict this. However, research is limited and further investigation is needed in order to examine the relationship between achievement and IP, both by gender and by developmental stage.

IP and Personality

Research findings regarding IP and personality traits have been relatively consistent. All but one study examining IP and personality traits have found imposters to be introverts rather than extroverts. This suggests that imposters are

reticent, cautious, shy, reserved and anxious - characteristics which represent a lack of authentic connection with others.

Lawler (1984) explored the Imposter Phenomenon using Jungian personality types on the Myers-Briggs Type Indicator (MBTI). Her sample consisted of 130 male and female graduate and honors undergraduate students. She hypothesized, and showed, that introverts are more vulnerable to IP feelings than extroverts. She described introverts as reserved, hesitant, and cautious. She suggested that introverts keep aspects of themselves hidden from others, thus causing them to feel that they are not truly seen for who they are - a core feature of IP.

A post-hoc analysis revealed that those subjects most vulnerable to IP feelings were introverts who used sensing (rather than intuiting, thinking or feeling) as their primary auxiliary function. She noted that previous research using the MBTI indicated that this combination (introversion and sensing) was frequently associated with psychiatric problems, misperceptions and unpleasant affect.

Lawler also found in her post hoc analyses that the combination of conducting one's life in an organized manner, making decisions based on logic, and focusing attention outwardly correlated with *low* IP scores, whereas the combination of conducting one's life in a spontaneous manner, making decisions based on values and beliefs, and focusing attention inwardly correlated with *high* IP scores.

Using 153 undergraduate students as his sample, Prince (1989) confirmed Lawler's findings of a strong relationship between IP and the introvert-sensing type using the Myers-Briggs Type Indicator. Prince also examined IP using the Personality Research Form (PRF) and found significant positive correlations between IP and Social Recognition, Succorance (feelings of insecurity and need for reassurance), Aggression, and Defendence, as well as significant negative correlations between IP and Affiliation, Autonomy, Change, Play, Endurance, and Desirability. A surprise finding was a nonsignificant correlation between IP and Achievement Needs. The strongest correlation in Prince's study was with the need for Social Recognition, accounting for 16% of the variance in IP scores.

High scores in Social Recognition describe individuals who wish to be held in high esteem by others and are concerned about reputation and appearances. These individuals tend to be approval seeking, obliging, well-behaved, and courteous.

Prince (1989) speculated that imposters have strong needs for approval and support from others but have difficulty getting these needs met because of hostility and anxiety regarding interpersonal contacts. They are suspicious of others and tend to be self-protective. He suggested that imposters have strong control needs, yet feel insecure. They dislike unfamiliar situations and have difficulty relaxing and having fun. He also hypothesized that imposters' strong needs for recognition cause them to be driven by performance goals rather than by learning goals.

Unlike Prince, Beard's study (1990) of personality variables associated with IP did *not* find a significant relationship between IP and Succorance and Social Recognition. This depicted imposters as less dependent and approval seeking than Prince's description. Both studies used similar samples of undergraduate students although Beard's study had a smaller sample size.

Cromwell (1990) examined personality characteristics and irrational beliefs of imposters using a younger population. Her subjects were 105 English honors students from a suburban high school (grades 9 - 12). Her study showed significant differences in her imposter and nonimposter groups for personality characteristics and irrational beliefs.

Using the Needs Scale on the Adjectives Check List (ACL), Cromwell found that imposters had significantly lower mean scores on factors labeled Sociability, Self-centered and Self-disciplined than nonimposters, and significantly higher mean scores on the factor labeled Impulsive. When the ACL Needs Scale items were put into a stepwise discriminant analysis, the scales of Succorance, Deference, and Intraception (labeled "Dependent") combined to significantly differentiate imposters from nonimposters.

Using the Transactional Scale of the ACL, she found that imposters scored significantly higher than nonimposters on the Adapted Child and Critical Parent subscales and nonimposters scored significantly higher than imposters on the Nurturing Parent and Adult subscales. The Adapted Child was the best single predictor of IP. Subjects scoring high on this scale were described as individuals who lacked independence and who conformed to others' expectations of them,

often compromising their own needs. An Adapted Child is described as one who becomes so accommodating to others' needs that they often have difficulty identifying and meeting their own needs. They do not have a stable sense of self due to their "chameleon" behaviors.

Different from Lawler's and Prince's findings, Cromwell's sample were *not* more likely to be introverts than extraverts. They were *not* aloof, cautious, introspective and unable to express emotion. Cromwell speculated that this difference in findings may have been due to the use of different instruments to measure personality (the ACL rather than the MBTI), although her findings may also have identified developmental aspects of the phenomenon since she used high school students as subjects.

Grays (1992) investigated the relation between prior experiences and IP using a sample of 319 racially diverse female undergraduate students from four different universities. Using the Biographical Questionnaire (BQ) she found significant positive correlations between high IP scores and the BQ factor of Feelings of Social Inadequacy. Significant negative correlations were found between high IP scores and BQ factors of Adjustment, Social Maturity, Warmth of Maternal Relationship, Athletic Participation, Academic Achievement, and Cultural-Literary Interests. In combination, the factors of Adjustment, Feelings of Social Inadequacy, Social Maturity, and Athletic Participation were the best predictors of IP.

These findings suggested that imposters are maladjusted with feelings of discouragement and dejection, similar to Clance and Imes' (1978) original

observations of imposters as depressed. They also indicated that imposters seek to be alone - a finding which supports earlier research identifying imposters as introverts (Lawler, 1984; Prince, 1989).

Grays' findings also identified that imposters tend to be conventional and experienced discomfort when change was required. This is consistent with Prince's (1989) and Beard's (1990) findings which found imposters avoiding change and preferring structure and familiarity.

In addition, imposters in this study were described as self-conscious and sensitive to criticism. Again, these findings supported previous findings of an association between IP and self-monitoring (Harvey, 1981; Topping, 1983) and avoidance of evaluation (Cromwell, 1990).

In conclusion, the research on IP and personality variables suggest that imposters may have high needs for validation and support, but are unable to get these needs met due to fear of social interaction. Described as introverts, imposters appear to suppress their authentic selves for fear of a lack of validation.

IP Cross Culturally

Very limited cross cultural research has been done on IP. To date, only one study has examined IP in a non-Western culture. This study was done with adult Catholics in Korea and examined IP and personality variables (Chae et al., 1995).

The prevalence of IP in the Korean sample was less than the prevalence found in the American studies done by Clance (1985) and reported by Harvey and Katz(1985), but more than the prevalence found by Topping (1983).

However, the authors took the position that IP was less prevalent among Korean Catholics. The authors suggested that the more clearly defined hierarchical structure of the Eastern society may give individuals a better sense of identity. Clearly defined roles may provide support for feelings of accomplishment. This premise is consistent with the IP research regarding role atypicality. The authors propose that both the multiplicity of roles in American culture and the ambiguity which surrounds these roles may be promoting greater frequency of IP.

Using the MBTI and the NEO Personality Inventory - Revised (NEO-PI-R) Chae, et al. (1995) examined IP personality traits among 654 Korean men and women from four cities in South Korea. Although they found no gender differences, there was a negative correlation between female subjects and age, with younger women showing higher IP scores. This may suggest either a developmental or an experiential aspect of IP.

In this study attribution ratings of ability, effort, situation and luck were also correlated with IP scores. Similar to findings in American samples, there were positive correlations with luck, and negative correlations with ability, suggesting that the IP construct among Koreans is similar to IP among Americans.

Other similar findings in this study to American IP research were the personality characteristics of imposters. Chae, et. al. (1995) found a strong relationship between IP and introversion. This was a significant finding using results from both personality instruments.

In addition, their study revealed strong relationships between high IP scores and the NEO-PI-R subscales of Neuroticism (positive correlation) and Conscientiousness (negative correlation). The Neuroticism subscale consists of items reflecting anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability. Consistent with traits identified in American imposters, this cluster of characteristics appears to be the core affective aspects of IP. The authors suggest that "emotional dysphoria is at the heart of this phenomenon" (p.480).

The NEO-PI-R's subscale Conscientiousness includes items reflecting competence, order, dutifulness, achievement striving, self-discipline, and deliberation. The negative correlation between IP and this subscale suggests that Korean imposters have feelings of incompetence, are disorganized, are hesitant to strive for achievement and lack discipline. This finding is consistent with Clance and Imes (1978) conceptualization of IP and IP personality research among American samples (Cromwell, 1990; Lawler, 1984; Prince, 1989).

Table 1 encapsulates the findings from this literature review. In summary, since IP was first identified in the works of Clance and Imes (1978), research has validated it as a psychological construct but has changed some of the original hypotheses regarding those who are vulnerable to chronic feelings of fraudulence. The literature supports that (1) there are no gender differences in the prevalence of IP but there are complex gender differences in the nature of female and male imposters, (2) IP appears across achievement levels,

(3) imposters tend towards introversion despite emotional needs for connection, and (4) IP may exist cross culturally but at differing rates and dynamics.

Table 1.

IP Research Findings

Concept	Findings
IP and Gender	
Clance & Imes (1978)	High achieving women experience feelings of fraudulence
Stahl et. al. (1980)	55% of high achieving high school females do not attribute successes to intelligence
Topping (1983)	Male faculty have higher IP scores than female faculty
Chae et. al. (1995)	Slight correlation between IP and age among females, suggesting that younger females experience feelings of fraudulence in greater proportion to older females
Imes (1983)	No gender differences in causal attributions of success No differences among Feminine, Masculine and Androgynous personality types in success attribution Only Undifferentiated group attributes success to IP related factors No differences among subjects in sex role congruent and sex role incongruent professions in attributions of success
Eschbach (1990)	Sex role indirectly effects IP through the mediating variable of self-concept
McIntyre (1990)	Women in traditional professions have higher IP scores than women in nontraditional professions or homemakers
Dingman (1987)	Social mobility correlates with high IP scores for women
Beard (1990)	Female and male imposters score significantly lower on Play and higher on Defendence Female imposters show significant correlations with low scores on Affiliation, Change, Exhibition, Impulsivity, and Nurturance

	Male imposters show significant correlations with low scores on Order and high scores on Change, Endurance, and Impulsivity
Kertay (1991)	Female and male imposters have low self-efficacy; females show external locus of control
Hayes & Davis (1993)	As Type A scores increase for females, IP scores decrease but as Type A scores increase for males, IP scores increase
IP & Achievement	
Clance & Imes (1978)	IP observed in high achieving women
Harvey (1981)	Honor students score significantly higher on IP scores
Chae et. al. (1995)	Nonsignificant correlation between IP and education level
Beard (1990)	Nonsignificant differences in IQ and personality traits for high achieving and low achieving imposters
Eschbach (1990)	Nonsignificant correlation between achievement and IP
Grays (1992)	IP more frequent in subjects with nonachieving tendencies than achieving tendencies
Cohen (1990)	Level of achievement not predictive of IP
IP & Personality	
Lawler (1984)	Subjects most vulnerable to IP - introverts using sensing
Prince (1989)	Strong relationship between IP and introvert- sensing type Strong correlation between IP and Social Recognition
Cromwell (1990)	Adapted Child is best single predictor of IP
Grays (1992)	Significant IP predictors - Adjustment, Feelings of Social Inadequacy, Social Maturity and Athletic Participation
IP Cross Culturally	
Chae et. al.(1995)	IP less prevalent among Korean adults than American Positive correlation between IP and attributions of luck; negative correlation between IP and attributions of ability Strong relationship between IP and introversion IP shows a strong positive relationship with Neuroticism and a strong negative relationship with Conscientiousness

Self Perception

Historically self-concept has been conceptualized as a global or general construct. Recent research, however, validates the multidimensional nature of self concept through factor-analytic studies (Harter, 1988a, 1988b, 1997, 1999; Lathrop, 1987; Marsh, 1986, 1993; Williams, 1991). Multidimensional models of self-concept more adequately describe an individual's awareness of self. Models which have examined the multidimensional aspects of self-concept have included domains such as scholastic competence, athletic competence, physical appearance, peer acceptance, behavioral conduct, personal dependability, and family acceptance (Harter, 1988a, Lathrop, 1987; Marsh, 1986). These represent the multiple roles that people take on in order to adjust their behavior to a particular context.

But even with the shift to multidimensional models of self-concept, many researchers have retained global self-esteem in their models (Rosenberg, 1979; Harter, 1988a). Not only can one evaluative the self within discrete domains (ie. cognitive competence, physical appearance, social acceptance, etc.), one can express a general evaluation which addresses one's perceived value as a person (ie. "self-esteem", "self-worth"). However, one's perceived worth as a person is not a summative expression of many self-evaluations in different domains (Harter, 1999).

Brown (1993) maintains that high self-esteem is a strong generalized liking and positive regard for the self - "affection for the self" (p.52). He, too, differentiates it from "attribute specific self-evaluations" and contends that it is a

more encompassing and stable construct than domain-specific self-concepts (p.28). He suggests that self-esteem spreads to all regions of the self-concept and influences domain specific evaluations. He suggests that self-esteem is more affectively-based whereas self-concepts are more cognitively-based.

Not all aspects of one's self-concept are equal, however. Some domains are more important to an individual than other domains. Testing James' discrepancy model, Rosenberg (1979) showed that the importance of a domain affects the degree to which success or failure influences overall feelings about the self. Examining the domain of likability, he found that, among his elementary aged subjects who cared about being liked, the relationship between perceived likability and global self-esteem was stronger than with those who did not care as much about being liked.

Harter (1986) examined the competence-importance aspects of self-concept with children and adolescents (grades 3 - 8) by administering the Self-Perception Profile for Children and a separate rating scale which asked subjects to make decisions about how important they felt each domain was in order to feel good about themselves. Five competence scores and five importance ratings were obtained. Discrepancy scores were then examined against global self-worth. Correlations between competence/discrepancy scores and self-worth were in the range of -.72 to -.55 across several samples. These findings supported James' (1892) theory regarding self-worth and how one weights one's specific competencies. Small discrepancies between domain-specific competence judgments and ratings of importance enhance self worth, whereas large

discrepancies between domain-specific competence judgments and ratings of importance reduce self worth.

Bohrnstedt and Felson (1983) also suggest the accuracy with which one perceives her/himself is partially based on the *verifiability* of a particular domain. In a study with children they found that objective measures of academic and athletic performance were strongly correlated with subjects' self-evaluations in those areas. However, an objective measure of popularity was only weakly correlated to self-evaluations of popularity.

The authors contended that popularity is difficult to verify because of communication barriers. If information regarding a certain domain is ambiguous individuals may be more easily influenced by their global self-esteem. Those with high self-esteem will rate themselves more positively and those with low self-esteem will rate themselves more negatively. These hypotheses were supported in Bohrnstedt and Felson's (1983) data where a model in which self-esteem affected self-evaluations of popularity rather than a model in which self-evaluations of popularity affected self-esteem. It is interesting to note that the inverse was true regarding self-evaluations of academic and athletic abilities - self-evaluations in these domains affected self-esteem rather than the opposite. These findings supported their theories that the verifiability of an attribute contributes to self-perception .

Over the course of childhood and adolescence there is an increasing use of abstract, psychologically oriented terms for describing the self. Development appears to bring an increased and differentiated sense of self (Harter, 1988a;

Marsh, 1993). Harter (1988a) found that four- to seven-year-olds can make reliable judgments about cognitive, physical, social and behavioral domains although these are not completely differentiated. Factor analyses show that cognitive and physical items combine into one factor, and social and behavioral items combine into one factor. By middle childhood, however, children can clearly judge and differentiate at least five specific domains - scholastic competence, athletic competence, peer acceptance, behavioral conduct and physical appearance. During adolescence there is even greater identification and differentiation with the addition of close friendship, romantic appeal and job competence domains.

Developmental research also contends that children's perceptions of their abilities tend to grow more modest and more accurate from early to late childhood (Harter, 1988a; Phillips & Zimmerman, 1990). The development of cognitive abilities may allow the child to increasingly take on others' perspectives toward the self which may lead to these more realistic views.

Self-Perception and IP

For imposters, the development of self perceptions becomes self-critical, discounting and inaccurate. Imposters develop self perceptions of incompetence and fraudulence despite objective information to the contrary. This eliminates the possibility of pride in one's accomplishments.

Maracek and Mettee (1972) assert that individuals with self-derogatory biases tend to attribute successes to sources not within their control. The authors suggest that to maintain a cognitive consistency, individuals who possess self-

derogatory biases and experience success must reject the idea that this success emanated from within themselves.

In Phillips' (1984) study of high-achieving elementary-aged children, it was noted that low-perceived-competence students were more likely to attribute successes to external factors and to attribute mistakes and failures to internal factors. Perceived incompetence in children/adolescents has been associated with low achievement goals (Phillips, 1984), behavior problems and depression (Blechman et al., 1986).

Hirschfield's (1982) research found that the best predictive variable of IP was the discrepancy between self-perception and perception of the characteristics needed for success in one's career. She concluded that imposters had not internalized the competent parts of themselves that accounted for their career successes.

Kolligian (1990) defined IP as an incompetent or defective self-perception with both cognitive and affective components. He hypothesized that perceived fraudulence develops through

> (1) an initial defective or incompetent view of the self, (2) an intolerance for this defective or negative view self, (3) a perceived need for maneuvers that protect the self against the negative thinking of self and others, leading to both fraudulent actions and self-perception, and (4) additional negative thoughts and feelings about the self. (p. 268)

Kolligian acknowledged that the potential reasons for this initial negative self-perception could be numerous. One possibility which he posited was a

depressive self-schema, or the inability to internalize positive events. He refers to a "pessimistic self-preoccupation" where self-critical tendencies are a core feature of IP (p.280).

Eschbach's (1990) research showed that both self-satisfaction (measured by a subscale of the Tennessee Self-Concept Scale [TSCS] which taps self-acceptance) and self-concept (measured by the total TSCS score which taps global self-esteem) had strong direct effects on IP. This finding expanded previous correlational studies which found a negative relationship between self-esteem and IP intensity (Harvey, 1981; Topping & Kimmel, 1985). An interesting outcome of this study was the finding that self-satisfaction had less direct and more indirect effects on IP intensity, whereas overall self-concept's effects were more direct.

Eschbach suggested that, in part, the global nature of the overall self-concept measure explained this finding. Self-concept contained a variety of self-descriptions and self-evaluations, whereas the self-satisfaction construct was operationalized as a narrower construct. Eschbach used both of these measures because she felt that self-satisfaction more clearly described Clance and Imes's (1978) description of low self-acceptance and that self-concept more clearly represented global self-esteem which was more comparable to past research.

Kertay (1991) examined IP as it related to locus of control and self-efficacy. He found that IP was negatively correlated to self-efficacy. This suggests that imposters perceive themselves as ineffective and incompetent, and lack motivation and perseverance.

Grays's (1992) study of prior life experiences among female, racially diverse, undergraduates showed that imposters were significantly less likely than nonimposters to report that they ranked in the top 10% of their class. This finding also validated Clance and Imes's IP construct of imposters seeing themselves as less capable than the objective evidence. Grays's study also showed imposters avoiding athletic participation. This finding is supported by Kertay's (1991) finding that imposters perceive themselves as having poor physical efficacy.

Alvarez (1995) investigated psychology doctoral students to determine if IP significantly predicted self-efficacy. His sample included 62 females and 32 males who were either in the process of applying to, or already participating in, a predoctoral internship. Initial analyses of the data showed no gender differences in the three variables of IP, self-efficacy and work satisfaction.

Despite intensive counselor training programs which have included efficacy-building experiences (i.e. clinical supervision and observation of other counselors), Alvarez reported that there exists a large variation in counselors' self-efficacy. He hypothesized that this might be attributed to IP. Alvarez's research supported this hypothesis. His findings showed that, more than the efficacy-building experiences of performance accomplishments, vicarious learning experiences, verbal persuasion and emotional arousal, IP contributed a larger amount of variance (34%) to self-efficacy. He concluded that, despite efficacy-building experiences which appear to assist many counselors in feeling

more capable, counselors who reported high levels of IP also reported low levels of self-efficacy.

In summary, the literature indicates that imposters do not perceive themselves in a favorable light. They imagine themselves as ineffective, incompetent, and "not having what it takes." Although most of the empirical research has examined imposter's self-perceptions in academic or work domains, there is some evidence that they also do not see themselves as physically capable either. Other domains of self-perception have not been examined.

Social Support

Social support is the accessible, trusting, and sustaining quality of one's relationships. Rogers (1951) described support as acceptance in the form of unconditional positive regard. Others have differentiated support into various types of support such as emotional support, appraisal support, informational support, and instrumental support (Cohen, 1990; Robinson, 1995), and functional support and structural support (Vandervoort, 1999). Social support can also come from several sources such as parents, spouse, co-workers, teachers, friends, etc.

Social support has been found to reduce stress, improve physiological health, decrease depression, increase resiliency to trauma, and increase survival rates after a stroke or heart attack (DuBois, Felner, Brand, Adan, & Evans, 1992; Dubow, Tisak, Causey, Hryshko, & Reid, 1991; Vandervoort, 1999). Having supportive relationships with others provides an avenue to process feelings and

affirm the self, which wards off chronic negative affect (ie. depression, anxiety, hostility) and poor health.

Research which examines the effects of social support in the lives of children and adolescents has found social support to be a positive factor in the development of high self-esteem (Felson, 1993) and the adjustment to life stressors (Dubow et al., 1991; DuBois et al., 1992). For social support to act as a buffer, however, it may be that the type of support must match the type of stressor. For example, teacher support may better address the stressor of moving to a new school.

Dubow et al. (1991) found that while family support predicted improvement in teacher-rated behavior problems, competencies and GPA, peer support had the most consistent relations to adjustment. The authors suggested that this finding reflects the increasing importance of peer relationships during adolescence.

Cooper, Grotevant, and colleagues (as cited in Harter, 1999) have also emphasized autonomy and connectedness in adolescent relationships with parents. They contend that one task of adolescence is to individuate from the parents while also remaining connected. They identified two dimensions of autonomy and two dimensions of connectedness among adolescents and their parents: *self-assertion*, the ability to express a point of view and *separateness*, the ability to express how one is different from others; *mutuality*, respect and support for others opinions and *permeability*, openness to others' points of view.

Other researchers (Harter, 1999; Harter, Waters, Pettitt, Whitesell, Kofkin, & Jordan, 1997) have criticized the polarization of these two views of development, suggesting that healthy adaptation is an integration of both autonomy and connectedness. They refer to the attachment theorists who emphasize the importance of secure bonds between infants and caregivers in the development of autonomy, as well as theorists who have emphasized the importance of close friendships during middle and late childhood.

Harter (1990a) conceptualized social support as displayed emotional support and perceived positive regard from others. She found that throughout middle school and high school those students who had high self-worth also felt that significant others were supportive of them. In examining four different types of social support (parent, teacher, classmate and close friend), parent and classmate support contributed more to self-worth than close friend or teacher support. It is notable that parent influence is as strong as classmate influence, and that classmates appear to have greater influence on self-worth than close friends.

Robinson (1995) investigated the contributions of three types (approval, emotional support, and instrumental aid) and five sources of social support (mother, father, best friend, classmate, and teacher) to global self-worth using a sample of 370 middle and high school students. She found a consistent pattern in which approval was more highly related to self-worth than emotional support or instrumental aid. This finding was strongest with classmates but also significant with parents even among those subjects at the high school level. This finding

suggests that adolescence may not be a process of detachment from parents but of differentiation within the context of parent support.

Gender differences were also identified in Robinson's study. Female subjects reported higher levels of approval, emotional support, and instrumental aid from their best friends than did males. This finding suggests a gender difference in the nature of the close-friend relationship, with girls focusing more on the intimate aspects of the relationship, an observation made by several feminist theorists (Chodorow, 1978 ; Gilligan, 1982; Jordan et. al., 1991; Miller & Stiver, 1997). Girls also reported a lower level of father emotional support than did boys. Robinson speculated that this may be due to the adolescent girls' move into opposite-sex relationships or to their spending less time with fathers.

This finding suggests that adolescents' subjective reaction to support is an important motivator of false self behavior. It also suggests that those adolescents not receiving high levels of approval and social support may suppress their true selves and modify their behaviors in order to obtain approval from significant others.

Harter et. al. (1997), in examining adult relationship styles with partners, found that higher levels of perceived validation also resulted in higher levels of authentic self behavior. Higher levels of perceived validation were more prevalent among partners where both were identified with a mutuality relationship style rather than an other-focused or self-focused orientation. These findings support Miller's (1986) description of being *with* others and not just being *for* others.

Social support was also found to increase students' level of "voice", or ability to express one's thoughts and feelings. In a study by Harter et. al. (1998) with 307 high school students (grades 9 - 12), relationships were found between support in a given relational context and level of voice in the same relational context. Using the relational contexts of teachers, parents, male classmates, female classmates, and close friends, those identified with high support in a relationship reported significantly higher levels of voice than those identified with moderate support; those with moderate support in a relationship reported significantly higher levels of voice than those with low support.

Harter et. al. (1998) maintain that if significant others do not validate and support an adolescent's thoughts and experiences, the true self goes into hiding. The sense of relational support gives the adolescent the sense of safety to express her/his true self. These findings, however, were within a context-specific framework and had minimal correlations with other relational contexts.

Buddin (1998) investigated parents' individuation and connectedness with adolescents' level of voice (the ability to share one's opinions with others). As predicted, those adolescents with the highest level of voice had parents who (1) could clearly express their own opinions and (2) who provided support for their adolescents' expression of opinions. Those with the lowest levels of voice had parents who neither expressed their own opinions nor supported their adolescents' viewpoints. Adolescent levels of voice for parent opinion sharing without support and parent support without opinion sharing fell in between.

She did, however, find similarities in imposters' family structures. Using the Family Environmental Scale, she found significant negative correlations between IP and the subscales of Cohesion and Expressiveness, and significant positive correlations between IP and the subscales Conflict and Control. Based on these findings, Bossotti concluded that imposter families were emotionally distant and rigid. Interactions were unclear and conflictual with frequent displays of overt anger. She supported Clance and Imes' descriptions of imposters' families as families in distress - families with little sense of belonging, where members were perceived as unsupportive and unhelpful.

Kolligian (1990) suggests that parents of self-critical children use negative control with inconsistent expressions of love, which give children the message of conditional acceptance. They demand achievement as conditions of acceptance, thereby instilling in the child a need to win approval through performance.

At the adolescent developmental stage Kolligian then identifies that social-cognitive skills bring to awareness the self as an object of others' scrutiny. Adolescents may feel more vulnerable and begin to hide parts of themselves that they do believe "measure up" to others' expectations. Rather than sharing with parents or peers the contradictions they feel between their private and public selves, they keep it a secret and are, thereby, unable to internalize the performances of the public self.

Cromwell's (1990) investigation of IP among high school high achievers suggested that imposters become irritated with others' attempts to offer emotional support, and tend to be indifferent and inattentive to others' thoughts

and feelings. Her findings showed that imposters have low frustration tolerance, feel unsure about themselves, and experience anxiety in social interactions. She also indicated that they lack independence and have difficulty setting and attaining goals. Like Prince (1989), Cromwell's data indicates that imposters may be strongly defended individuals who lack healthy reciprocal connections with others.

Cohen's (1990) research with middle managers and technical specialists found no direct correlation between IP and social support through being listened to by others. And, contrary to expectations, found that when social support through being listened to by others was combined with the variables of external locus of control, high environmental ambiguity, and low tolerance for ambiguity, it correlated positively with IP. It is noted that social support under these circumstances may be a different concept than social support as defined in this review.

Cohen's explanation for this finding is that, often in the work environment, introduced support can be perceived as an indication that one's work is truly inadequate. It is also important to note that in Cohen's study, social support through being listened to by others is only one of two questions intended to tap social support. She recommended a more thorough investigation of the role of social support in vulnerability to IP.

Grays (1992) investigated prior life experiences and IP using the Biographical Questionnaire (BQ) and the Imposter Phenomenon Family Assessment Questionnaire (IPFAQ) with undergraduate females. She described

imposters' memories of high school as being full of desires to be more socially accepted, yet feeling extremely self-conscious. Despite participation in school activities and dating, imposters saw themselves inadequate in these social situations. They were also not as likely as nonimposters to offer support to friends experiencing personal problems. This finding is similar to Cromwell's (1990) finding that imposters were inattentive to the thoughts and feelings of others.

Grays found that imposters rarely questioned teachers. She speculated that this may have been an attempt to disguise their self-perceived academic/ intellectual incompetence. Imposters in this study also believed teachers held higher opinions regarding their intellectual abilities than either they or their parents held.

Similar to Bussotti (1990), Grays described imposters' memories of their families of origin as unfavorable. More than nonimposters, imposters were likely to feel irritation and anger towards their parents and to take out frustrations on them. They perceived their mothers as disinterested and emotionally unsupportive; they perceived fathers as nagging and pushing for higher achievement. They perceived parents as overly critical and controlling. They felt it was difficult to please their parents and did not receive verbal or tangible rewards for their accomplishments. This fits with Clance's (1985) description of imposters' families as having an absence of praise.

Grays' study also indicated that imposters view themselves as different from their parents and their brothers but not their sisters. They felt that their

parents also saw these dissimilarities. Findings did not specify what these dissimilarities might be. Imposters in this study believed that their parents held higher opinions regarding their intellectual abilities than the imposters themselves held but they did not view their parents as holding high standards for them. Grays suggested that despite low family recognition and expectations, imposters may have received encouragement from others (ie. teachers). This attempt then to cope with these conflicting views may have resulted in imposter feelings.

The literature describes imposters with a minimal sense of social support. Feeling little sense of belonging or genuine acceptance in their families of origin, imposters continue to have poor interpersonal relationships among peers, often misperceiving others' offers of help or support.

Statement of the Problem

Negative self-evaluations (among which IP is included) have been implicated in various types of pathology such as anxiety and depression (Harter, 1999). Perceived incompetence in children/adolescents has been associated with poor problem solving, lower achievement goals, behavior problems, and depression (Harter, 1999; Phillips, 1984). Theory tells us that feelings of authenticity are important for mental health.

It has also been suggested that imposter feelings may impede achievement and hinder sufferers from reaching their highest potential (Clance & O'Toole, 1988). Adolescent imposters may not seek out advanced academic tracts or

pursue talents in the arts or athletics. Therefore, the investigation of IP is a worthwhile topic of investigation.

The body of research on IP suggests that there are important relationships between IP and gender, achievement, families of origin, and personality. Although IP appears to be equally prevalent among both genders, research has suggested that female and male imposters present themselves differently. Although the literature has supported the findings that imposters tend to be introverts and emotionally detached from their parents, no study to date has examined imposters' feelings regarding domain-specific self-perceptions and perceptions of differing sources of social support. By identifying self-perception and social support variables which predict IP, this study will contribute to our understanding of the development and maintenance of IP.

In addition, previous research has, with only a few exceptions, limited itself to Western adult samples. This has restricted our knowledge regarding developmental and multiple/universal aspects of IP. By examining both an adolescent population and by doing a cross-cultural comparison, this study greatly expands our conceptualization of IP and may provide insights for early intervention possibilities and important strategies for the healthy social and emotional development for children and adolescents.

Summary

This review of the literature has presented theory and research which supports the relationships of self-perceptions, social support and the Imposter Phenomenon. Specifically, it has illustrated how self-perceptions and self-

concepts develop through ones's self-appraisals (the discrepancies between one's aspirations and one's actual successes) and through the interactions, feedback and emotional connections to significant others. It has examined the research which supports IP as a valid construct of an internalized perception of fraudulence and has presented many of the gender, achievement, personality and family correlates for IP. Finally, it has recognized the developmental and cross-cultural gaps in the current research. Based on theory and the current literature on IP, it is hypothesized that self-perceptions, self-concepts and social support will significantly predict IP for American and Japanese adolescents.

Hypotheses

Based on a review of the literature and the various theories of self-perception, the following hypotheses will be investigated:

Hypothesis 1: There will be no interaction effects or main effects on IP scores using gender and culture.

The majority of the research has found no gender differences in mean IP scores, and little research has been done cross culturally (Bussotti, 1990; Dingman, 1987; Harvey, 1981; Kertay, 1991; Langford, 1990; Lawler, 1984). Threfore, it is expected that gender and culture, singly and in interaction, will not impact IP scores.

Hypothesis 2: Using culture, social support, self-perception, and self-concept variables, similar factors will significantly predict IP for females and for males. Previous research has found no gender differences in mean IP scores (Bussotti, 1990; Dingman, 1987; Harvey, 1981; Kertay, 1991; Langford, 1990; Lawler, 1984) and has found both similarities and differences in the personalities of female and

male imposters (Beard, 1990; Chae et. al., 1995; Kertay, 1991). Therefore, it is hypothesized that like cultural, self-perception, self-concept, and social support variables will predict IP for females and males.

Hypothesis 3: Using gender, self-perception, self-concept, and social support variables, similar factors will significantly predict IP for American and Japanese adolescents.

Based on Chae et. al.'s (1995) research with a non-Western sample which found no gender differences and similar personality traits between Korean and American imposters, it is expected that similar gender, self-perception, self-concept and social support variables will predict IP in this study.

Hypothesis 4: Scholastic Self-Perception, Athletic Self-Perception, Physical Self-Perception, Behavioral Self-Perception, Close Friend Self-Perception and Global Self-worth (as indicators of self-perception) will similarly predict IP among American and Japanese adolescents.

Based on the minimal cross cultural research on IP and the literature which indicates that imposters do not perceive themselves as academically or physically adequate (Eschbach, 1990; Grays, 1992; Harvey, 1981), it is expected that consistent self-perception variables will predict IP.

Hypothesis 5: Sociability, Competence, and Dependability (as indicators of self-concept) will similarly predict IP among American and Japanese adolescents.

Previous research, including the only cross cultural study done with a non-Western culture, has identified imposters as feeling incompetent both academically and socially (Chae et. al., 1995; Eschbach, 1990; Grays, 1992; Prince,

1989). Therefore, it is hypothesized that similar self-concept variables will predict IP.

Hypothsis 6: Parent Support, Teacher Support, Classmate Support and Close Friend Support (as indicators of social support) will similarly predict IP among American and Japanese adolescents.

Previous research has indicated that imposters do not feel close to family members or peers (Bussotti, 1990; Grays, 1992; Kolligian, 1990; Prince, 1989), and due to little cross cultural research in this area, it is expected that similar social support variables will predict IP.

CHAPTER III: METHOD

The purpose of this investigation is to examine gender and cultural differences in the Imposter Phenomenon among American and Japanese adolescents. In doing so it explores the significant factors of IP for each gender and for each culture on the basis of selected demographic, self-perception, self-concept and social support variables. In this chapter selection of subjects, instrumentation, translation process, reliability studies, reliability data from the current study, and procedure will be described.

Subjects

The sample for this study included 280 high school juniors and seniors from suburban high schools in the United States and Japan. The 136 American subjects included 71 females and 65 males (57 juniors and 79 seniors) from two high schools in the Tulsa, Ok. area. Subjects were recruited from English, sociology and advisory classes. There were 4 African Americans (3 females), 2 Asians (both males), 113 Caucasians (63 females and 50 males), 2 Hispanics (both males), 9 Native Americans (3 females and 6 males), and 6 Others (2 females and 4 males). An accurate count of students who did not participate was not available.

The 144 Japanese subjects included 86 females and 58 males (all juniors) from a private high school in Tokyo and a public high school in Osaka. Subjects were recruited from required and elective English classes. All participants were Asian.

Past research has focused on high achievers; however, participation in this study was not restricted by high test scores or G.P.A. All students in the volunteered junior and senior classrooms were invited to participate.

Instrumentation

The instruments used in this study included English and Japanese versions of a Demographic Data Form, the Harvey Imposter Phenomenon Scale (IP Scale), the Self-Perception Profile for Adolescents, the Multidimensional Test of Self-Concept (MTS) and the Social Support Scale for Children and Adolescents.

Demographic Data Form

A Demographic Data Form was created in English to collect information regarding subjects' gender, grade level, perceived grade point average (GPA) and race. A copy of this instrument can be found in Appendix B. A similar form was created in Japanese but perceived GPA and race were not included. After creating the form in English it was discovered that the Japanese grading system varies from school to school so that information regarding perceived GPA would, therefore, not be generalizable. Race was considered unnecessary as all Japanese subjects were Asian.

Harvey Imposter Phenomenon Scale (IP Scale)

The Harvey IP Scale is a 14-item self-report instrument developed by Joan Harvey in 1981 to validate IP as a psychological construct. Items for the scale were constructed from the observations of previous researchers and Harvey's own investigations. It utilizes a 7-point Likert-type scale ranging from "not at all

true" (0) to "very true" (6). Total IP scores ranged from 0 to 84 with higher scores representing stronger imposter feelings.

Her initial questionnaire contained 21 items, but after administering her initial instrument to 74 graduate students and finding an inter-item reliability of .71, Harvey eliminated 7 items and obtained an average inter-item reliability of .85. She then cross-validated the 14-item instrument with a sample of 72 undergraduate students. Sample Harvey IP Scale items include "In general, people tend to believe I am more competent that I really am" and "I feel I deserve whatever honors, recognition, or praise I receive."

Reliability figures on the Harvey IP Scale have been adequate. Topping (1983) found an internal consistency of .75 using Cronbach alphas with a sample of university faculty members. Holmes, Kertay, Adamson, and Clance (1993) found a coefficient alpha of .91 using adult clinical and nonclinical samples of imposters and nonimposters, and Fried-Buchalter (1992) found a coefficient alpha of .82 with a sample of mid-level marketing managers. No test-retest reliability information is currently available.

The Harvey IP Scale has also been shown to be a valid instrument. Harvey (1981) ascertained convergent validity of the scale using high achievement and attributional style. Topping (1983) demonstrated discriminant validity of the scale with trait anxiety, self-monitoring behavior and self-esteem. Holmes et. al. (1993) demonstrated concurrent validity of the scale with a clinical population of independently identified imposters and nonimposters.

In a factor analysis of the 14 item scale, Edwards, Zeichner, Lawler and Kowalski (1984) also demonstrated the validity of the instrument with three factors emerging. Factor one pertained to feelings of phoniness, factor two pertained to feelings of unworthiness and factor three pertained to feelings of inadequacy or incompetence.

The Harvey IP Scale was selected for this study because it has been widely used in past research and because it has adequate reliability and validity. It is also the only published instrument which has been used to measure IP in adolescents. A copy of this instrument can be found in Appendix C.

The Self-Perception Profile for Adolescents

The Self-Perception Profile for Adolescents is a 45-item self-report inventory developed by Susan Harter (1988b) as an upward extension of her previously developed Self-Perception Profile for Children. Both instruments were designed to tap domain-specific judgments of competence and the global sense of one's self-worth. Each item has a 4-point Likert type response in a "structured alternative format" which consists of 2 statements. The adolescent is first asked which of the 2 statements they most closely identify with and then asked to rate that specific statement with "really true for me" or " sort of true for me." There are four items to select from and items are scored such that a 4 represents the most positive self-perception and a 1 represents the poorest self-perception. For example,

Really True For Me	Sort of True For Me				Sort of True For Me	Really True For Me
☐	☐	Some teenagers do very well at their classwork	BUT	Other teenagers don't do very well at their classwork.	☐	☐

This item design was devised in order to legitimize either choice, thus decreasing the tendency for subjects to respond in socially desirable ways.

The Self-Perception Profile for Adolescents measures the eight specific domains of Scholastic Competence, Social Acceptance, Athletic Competence, Physical Appearance, Job Competence, Romantic Appeal, Behavioral Conduct, and Close Friendship as well as Global Self-Worth. Each subscale provides an independent score ranging from 5 - 20 which allows the researcher to look at an adolescent's self-perceptions across domains as well as an independent judgment of one's global self-worth.

On an early version of the instrument given to two different samples of 8th - 11th graders the subscales Behavioral Conduct and Job Competence showed lower internal consistency reliabilities based on Cronbach's alpha. Those items reducing reliability scores were revised and, using another sample of 8th - 11th graders, reliabilities were as follows: Scholastic .81, Athletic .92, Social Acceptance .78, Close Friendship .83, Romance .80, Appearance .86, Conduct .78, Job .74 and Self-worth .88 (Harter, 1988b).

No test-retest reliability information is currently available. Harter (1988a) challenges the appropriateness of the psychometric property of test-retest reliability due to substantive changes in one's self-perceptions across situations and time (particularly among children and adolescents).

Using four different samples Harter (1988b) also explored the factor pattern of the eight specific subscales and found that each of the eight subscales

define their own factor. Global self-worth was not included in the factor analysis because, although it is qualitatively different from domain-specific perceptions, it is partially determined by how competent one feels in specific, highly valued domains.

For the purposes of this study three subscales were eliminated due to the number of measures and the cost of translation. The subscales of Social Acceptance, Job Competence, and Romantic Appeal were selected to be eliminated. Social Acceptance was eliminated because it was felt that the variable of social acceptance would be captured in the other instruments. Job Competence was eliminated due to cultural differences which made a comparison impossible in this domain. Unlike in the U.S., certain high schools in Japan do not allow students to work at parttime jobs, yet it is commonly understood that many students DO work secretly. It was felt that Japanese students might not be completely honest about the items related to this subscale. Romantic Appeal was eliminated from this study due to its lack of relevance to the research questions. With the deletion of these three subscales, the number of total items on the instrument was reduced from 45 to 30.

The Self-Perception Profile for Adolescents was selected for this study because it is a reliable and valid instrument which taps multiple areas of a subject's sense of self. It allows this study to investigate the predictive power of specific areas of self-perception in relation to IP. A copy of this instrument can be found in Appendix D.

The Multidimensional Test of Self-Concept (MTS)

The Multidimensional Test of Self-Concept is an 18-item self-report instrument developed by Richard Lathrop in 1987. It measures self-concept areas of Sociability (close-distant), Competence (inexpert-expert) and Dependability (reliable-unreliable) in one's current state ("As You Really Are") and one's desired state ("As You Would Like to Be"). Discrepancy scores can be computed from these two measures, but for the purposes of this study, only the "As You Really Are" scores were obtained. Each item consists of a 1 - 7 graphic rating scale with low scores representing poor self-concept and high scores representing high self-concept. Subscale scores range from 6 - 42.

Reliability was investigated using subjects ranging from 14 to 73 years of age. Generalizability coefficients for each of the subscales were: Sociability .86, Competence .78 and Dependability .83. Internal consistency coefficients (Alphas) for each subscale were: Sociability .84, Competence .72 and Dependability .79. Test-retest analysis after three months ranged from .66 to .71 for the "Are" scores, from .58 to .74 for "Like to Be" scores and from .44 to .58 for Discrepancy scores (Lathrop, 1988).

Construct validity has been supported through factor analysis, confirming the three factors of Sociability, Competence and Dependability. Intercorrelations ranged from .41 to .54 (Lathrop, 1988). Path analysis was also used with all three "As You Really Are" subscales in determining precursers to academic self-esteem (Hudson, 1988).

The MTS was selected for this study because it is a reliable and valid instrument which has been used to examine the influence of self-concept among adolescents. It is used in this study to investigate the predictive power of specific areas of self-concept in relation to IP. A copy of this instrument can be found in Appendix E.

The Social Support Scale for Children and Adolescents

The Social Support Scale for Children and Adolescents is a 24-item self-report questionnaire developed by Susan Harter in 1985. It was designed to tap the perceived support and positive regard one receives from significant others. Subscales include four possible sources of social support: parents, teachers, classmates and close friends. Like the Self-Perception Profile for Adolescents, each item has a 4-point Likert type response in a "structured alternative format" which consists of 2 statements. The adolescent is first asked which of the 2 statements they most closely identify with and then asked to rate that specific statement with "really true for me" or " sort of true for me." There are four items to select from and items are scored such that a 4 represents the greatest sense of support and a 1 represents the least sense of support. For example,

Really True For Me	Sort of True For Me				Sort of True For Me	Really True For Me
☐	☐	Some kids often spend recess being alone.	BUT	Other kids spend recess playing with their classmates.	☐	☐

Again, this question format was designed to overcome the tendency in two-choice formats to choose the more socially desirable response.

Internal consistency reliabilities for each subscale were initially established with two samples of elementary students and two samples of middle

school students. For each subscale reliability ranges were: Parent .78 - .88, Teacher .81 - .84, Classmate .74 - .79, Friend .72 - .83 (Harter, 1985). Because reliabilities for the Classmate Support and Friend Support subscales were lower than reliabilities for Parent Support and Teacher Support subscales, two Close Friend items were rewritten, two Close Friend items modified, and one Classmate item deleted and rewritten. A later study with adolescents using the two subscales of Parent Support and Classmate Support showed internal consistency alphas of .91 and .85, respectively (Harter, Marold, Whitesell, & Cobbs, 1996).

Factor analyses on the four samples revealed three significant factors from the elementary students, with Classmate and Close Friend combining as a single factor, and four significant factors from the middle school students (Harter, 1985). No test-retest reliability information is currently available.

Harter (1985) demonstrated validity of the Social Support Scale for Children and Adolescents with global self-worth. She also demonstrated validities of the Classmate Support subscale with social acceptance/popularity, and of the Close Friend Support subscale with ability to disclose personal thoughts and feelings to a friend. The Parent Support subscale was also shown to have validity with congruence of values among children and their parents.

The Social Support Scale for Children and Adolescents was selected for this study because it is a reliable and valid instrument which has been used to predict global self-esteem in students ages 8-18 (Harter, 1986). It allowed this

researcher to investigate the predictive power of specific areas of perceived support in relation to IP. A copy of this instrument can be found in Appendix F.

Translation Process

All of the questionnaires used for this research were instruments written in English and, therefore, needed to be translated into Japanese. Cross cultural research suggests that good translation methodology requires careful selection of translators, a back-translation procedure, and pilot studies in order to ascertain reliability (Carlson, 2000). It also focuses on "adaptation" versus strict instrument "translation" (Nicholson, 1995). All of these steps were followed by this researcher in order to obtain the most accurate and reliable Japanese instruments possible.

Marin and Marin (1991) recommend that optimal research translators are individuals who learned both languages at different times and in the different cultures. Although only one of the two translators for this study met this criteria, both translators were fluent in both languages and were intimately familiar with both Japanese and American cultures. The first translator, who developed the original Japanese versions of the instruments, was a Japanese woman who was teaching Japanese at a local community college. Although she learned English while studying in Japan, she married an American graduate student and returned to the U.S. with him. She had been in the U.S. for three years prior to this translation.

The second translator, who did the back-translations, was a Japanese woman who had retired from teaching Japanese at the same local community

college. She came to the U.S. thirty years ago speaking no English at all, but subsequently learned to speak English in this culture and then became an American citizen. She continues to provide professional translation services for several businesses in the area on a contract basis.

Following the initial translation into Japanese by the first translator, the instruments were then back-translated into English by the second translator without any consultation with the first translator. This author then compared the back-translated versions with the original English versions and discrepancies between the two languages were noted. Revision decisions were made to better capture the constructs being investigated and to maximize the instrument use with an adolescent population.

Reliability Studies

Following the initial translation, back translation and correction of the instruments, two pilot studies were conducted in order to determine and improve the internal consistency reliability of the instruments as interpreted into Japanese.

For the first study questionnaires were mailed to an American English teacher at the Kameoka High School in Kameoka City, Japan. Subjects for the first study were 40 male and female high school seniors. The American English teacher administered the questionnaires and returned them to the author. Cronbach's alpha was used to determine internal consistency reliability. Cronbach's alpha measures the homogeneneity of a measure by reflecting the

intercorrelations among a set of items and is considered to be a useful and practical measure of reliability ((Bloom, Fischer, & Orme, 1995).

Cronbach's alphas for each scale and subscale were calculated using SPSS. Cronbach's alpha for the Harvey Imposter Phenomenon Scale was .58. Cronbach's alphas for the subscales of the Self-Perception Profile for Adolescents were: Scholastic Self-Perception .40, Athletic Self-Perception .79, Appearance Self-Perception .74, Behavior Self-Perception -.45, Close Friend Self-Perception .79, and Global Self-worth .33. Alphas for the three subscales of the Multidimensional Test of Self-Concept were: Sociability .34, Competence .55, and Dependability .25. Finally, alphas for the subscales of the Social Support Scale for Children and Adolescents were: Parent Support .86, Classmate Support .35, Teacher Support .53, and Friend Support .86.

All subscales that had an internal consistency of less than .70 were subsequently analyzed intercorrelating all of the items within that scale. Nunnally (1978) reports that reliabilities of .70 or higher will suffice for research on predictor tests or hypothesized measures of a construct. All items that lacked significant correlations with other items, had significant negative correlations with the other items, or appeared awkward to the translator were retranslated. The following items were retranslated:

Harvey Imposter Phenomenon Scale

IP - Items 3, 5, 7, 9, 10, 11, 12, and 13

The Self-Perception Profile for Adolescents

Scholastic - Items 1, 7, and 19

Behavior - Items 4, 10, 22, and 28

Global self-worth - Items 12, and 24

The Multidimensional Test of Self-Concept

Sociability - Items 4, 7, and 10

Competence - Item 2

Dependability - Items 6, 9, 12, 15, and 18

The Social Support Scale for Children and Adolescents

Classmate - Items 10, 14, 18, and 22

Teacher - Items 19 and 23

The questionnaires were then sent back to Japan for a second reliability study. A native Japanese teacher was used to administer the questionnaires. Subjects for this study were 25 female and male high school juniors from a public high school in Osaka, Japan. Cronbach's alphas were again calculated for all subscales and are reported in Table 2 along side alphas from the first reliability study.

Table 2.

Findings from Reliability Studies

Variable	1st Study	2nd Study
IP	.58	.07
Scholastic Self-perception	.40	.58
Athletic Self-perception	.79	.73
Appearance Self-perception	.74	.68
Behavior Self-perception	-.45	.49
Close Friend Self-perception	.79	.77
Global self-worth	.33	.76
Sociability	.34	.58
Competence	.55	.24
Dependability	.25	.11
Parent Support	.86	.85
Classmate Support	.35	.56
Teacher Support	.53	.85
Friend Support	.86	.52

Several concerns arose regarding this new data. One concern was the weaker reliability of Friend Support although no retranslations had taken place between studies. The drop in reliability of Close Friend Support from an alpha of .86 in the first study to an alpha of .52 in the second study was investigated by

examining the intercorrelations of the items of each subscale of each study. It was identified that item #4 had four significant positive correlations with the other items in the first study and five significant negative correlations with the other items in the second study. After reviewing the item with the translator, no suggestions were made for retranslation so the item was left unchanged.

A second concern was the continuing poor reliability of the Scholastic Self-perception, Behavior self-perception, Classmate support, and all three scales of the MTS. After consultation the teacher at Iketa High School, it was decided that several of the Kanji word symbols used in the questionnaires may have been old fashioned or difficult for students to understand. These were subsequently changed to more popular or casual Kanji word symbols.

After further discussions with the translator, concerns were raised regarding the reliability of the MTS in Japanese due to its global evaluation of the self and the Japanese contextual sense of self. It was suggested that because the Japanese view themselves differently in different relational and situational settings it would be difficult for them to respond to the MTS subscale items consistently without a given context. This appeared to support previous research which identified the Japanese contextualized sense of self (Cousins, 1989). Because it was felt that reliability would be difficult to obtain only items 2 and 4 were changed using modernized Kanji symbols at the suggestion of the English teacher at the Japanese high school.

Intercorrelations were then run on the items of each subscale of Scholastic self-perception, Behavior self-perception, Classmate support and IP to determine

which items were problematic. Item number 25 was changed for Scholastic self-perception; items 16 and 28 were changed for Behavior self-perception; items 18 and 22 were changed for Classmate support; and items 3, 5, 6, 7, 9, 10, 11, and 13 were changed for IP.

Reliability Data from the Current Study

Data from the current study were used to calculate Cronbach's alphas for all subscales in their English and Japanese versions and are reported in Table 3. All variables in English were .70 or above, as recommended by Nunnally (1978) for research on predictor tests. The Japanese scales which fell below .70 included IP (.62), Scholastic Self-perception (.59), Athletic Self-perception (.63), Behavior Self-perception (.40), Sociability (.69), Competence (.63), Dependability (.69), Classmate Support (.68), and Friend Support (.51).

Table 3.

Reliability Findings for English and Japanese Variables

Variable	English	Japanese
IP	.70	.62
Scholastic Self-Perception	.74	.59
Athletic Self-Perception	.93	.63
Appearance Self-Perception	.84	.77
Behavior Self-Perception	.82	.40
Close Friend Self-Perception	.82	.75
Global self-worth	.86	.80
Sociability	.84	.69
Competence	.73	.63
Dependability	.79	.69
Parent Support	.89	.74
Classmate Support	.83	.68
Teacher Support	.86	.84
Friend Support	.94	.51

Research Procedure

All informed consents and parent permission were collected prior to the administering of the instruments (see Appendix A). Parent permission was

obtained from all American students under the age of 18. Parent permission is not required in Japanese schools if the school grants permission. School permission was granted for all four high schools several months prior to the study.

All questionnaires were administered in native languages. Questionnaires were distributed and administered in classrooms where teachers had volunteered to participate in this research. All instruments were contained within a single packet. Since two of the instruments had written instructions and two required verbal instructions, complete counterbalancing could not be conducted. The Self-Perception Profile for Adolescents and the Social Support Scale for Children and Adolescents require verbal instructions so they were explained and administered first. The Harvey IP Scale and the MTS have written instructions so these two instruments were counterbalanced and attached to the last part of the packet.

CHAPTER IV: RESULTS

The present study examined the relationships among perceptions of fraudulence, gender, culture, self-perceptions, self-concept and social support among American and Japanese adolescents. This chapter consists of three main sections. The first section describes the statistical procedures that were used to test the hypotheses. The second section contains descriptive information pertaining to the sample and to the scores on each of the instruments according to culture and gender. The third section contains data from the 2 x 2 analysis of variance and the multiple regressions which were conducted in order to test the hypotheses.

Statistical Procedures

The Demographic Data Form, the Harvey Imposter Phenomenon Scale, the Self-Perception Profile for Adolescents, the Multidimensional Test of Self-Concept , and the Social Support Scale for Children and Adolescents were used as instruments. Data from these instruments were recorded and analyzed on SPSS Base 9.0 for Windows. Descriptive statistics were computed for all variables.

In accordance with the hypotheses several statistical analyses were used to analyze the data. Initially a 2 x 2 analysis of variance was used to examine any interaction effects or main effects of gender and culture on mean IP scores. Split file multiple regressions were run on American and Japanese subjects using

gender, self-perception, self-concept and social support variables in order to find the best predictors of IP for each culture. Split file multiple regressions were then run on females and males using culture, self-perception, self-concept and social support variables in order to find the predictors of IP model for each gender.

Following these four overall analyses, separate regressions were conducted with each instrument in order to more specifically examine self-perception, self-concept and social support predictors for IP between the two cultures. A separate split file multiple regression was used on the six self-perception variables from the Self-Perception Profile for Adolescents (Scholastic, Athletic, Close Friendship, Appearance, Conduct, and Self-worth) in order to determine the best self-perception predictors of IP for each culture. Another split file multiple regression was used on the three self-perception variables from the MTS (competence, sociability and dependability) in order to determine the best self-perception predictors of IP for each culture. And finally, another split file multiple regression was run on the four social support variables (Parent, Teacher, Close Friend, and Classmate) in order to determine the best social support predictors of IP for each culture.

Descriptive Statistics

Sample

Subjects were 280 junior and senior high school students enrolled in one of either two American or two Japanese high schools. The 136 American subjects included 71 females and 65 males (57 juniors and 79 seniors) while the 144 Japanese subjects included 86 females and 58 males (all juniors).

Harvey IP Scale

Table 4 presents the descriptive statistics for the Harvey IP Scale. The total American sample had a mean score of 31.15 (range 8-69; SD = 11.03) which was lower than the Japanese sample's mean score of 39.94 (range 16-70; SD = 10.08). Gender differences were negligable. Females had a mean score of 35.84 (range 8-65; SD = 11.28) while males had a mean score of 35.46 (range 9-70; SD = 11.62).

Table 4.

Means, Standard Deviations and Ranges of Harvey IP Scale Scores

	Mean	SD	Range
American Total (n = 136)	31.15	11.03	8 - 69
Females (n = 71)	31.21	10.95	8 - 62
Males (n = 65)	31.09	11.21	9 - 69
Japanese Total (n = 144)	39.94	10.08	16 - 70
Females (n = 86)	39.66	10.11	16 - 65
Males (n = 58)	40.34	10.10	23 - 70
Total (n = 280)	35.67	11.41	8 -70
Females (n = 157)	35.84	11.28	8 - 65
Males (n = 123)	35.46	11.62	9 - 70

The Self-Perception Profile for Adolescents

Table 5 presents the descriptive statistics for the Harter Self-Perception Profile for Adolescents for both culture and gender. Scores on the subscales of this instrument could range from 1 - 4. The American sample's highest mean score among the six self-perception domains was 3.39 (S.D. .67) for close friend self-perception. The Japanese sample's highest mean score was also on the close friend self-perception but with a mean score of 2.78 (S.D. .71). The lowest mean score of 2.62 (S.D. .90) for the American sample was for athletic self-perception, whereas the lowest mean score of 2.04 (S.D. .48 and S.D. .53) for the Japanese sample was for scholastic self-perception and physical self-perception (respectively).

All of the Japanese mean scores for self-perception domains were lower than American mean scores (ranging from a difference of .31 in athletic self-perception to .97 in scholastic self-perception). This is congruent with other studies which have noted the Japanese tendency to respond in a less self-serving way than their American counterparts (Hymes & Akiyama, 1991).

Both the female and male samples' highest mean scores were on the self-perception domain of close friend. Females had a mean score of 3.14 (S.D. .76) and males had a mean score of 2.99 (S.D. .75). Females and males were also similar regarding the lowest mean score self-perception domain. Both scored lowest in the area of physical self-perception with females' mean score at 2.20 (S.D. .66) and males' mean score at 2.51 (S.D. .66).

The trend in these self-perception scores was for males' mean scores to be slightly higher than females' mean scores. The only exceptions to this were in the areas of behavior self-perception and close friend self-perception where female mean scores were higher (differences being .10 and .15, respectively).

Table 5.

Means, Standard Deviations and Ranges of the Self-Perception Profile for Adolescents

Scale	Culture				Gender			
	American		Japanese		Females		Males	
	Mean (Range) n = 136	SD	Mean (Range) n = 144	SD	Mean (Range) n = 157	SD	Mean (Range) n = 123	SD
Scholastic	3.01 (1.2 - 4)	.61	2.04 (1 - 3.8)	.48	2.48 (1 - 4)	.73	2.61 (1.2 - 4)	.69
Athletic	2.62 (1 - 4)	.90	2.31 (1 - 4)	.71	2.29 (1 - 4)	.79	2.68 (1 - 4)	.81
Physical	2.66 (1 - 4)	.67	2.04 (1 - 3.8)	.53	2.20 (1 - 4)	.66	2.51 (1.2 - 4)	.66
Behavior	2.92 (1.4 - 4)	.71	2.55 (1.4 - 3.4)	.42	2.77 (1.4 - 4)	.60	2.67 (1.4 - 4)	.62
Close Friend	3.39 (1.6 - 4)	.67	2.78 (1 - 4)	.71	3.14 (1 - 4)	.76	2.99 (1 - 4)	.75
Global Self-worth	3.10 (1.8 - 4)	.64	2.51 (1 - 3.8)	.62	2.75 (1 - 4)	.70	2.85 (1 - 4)	.69

The Multidimensional Test of Self-Concept

Table 6 presents the descriptive statistics for the Multidimensional Test of Self-Concept for both culture and gender. Scores on subscales of this instrument could range from 6 - 42. Again it is noted that Japanese scores tend to be lower than American scores. The differences in scores ranged from a difference of 5.12 in sociability to a difference of 11.12 in dependability. This is congruent with other studies which have noted the Japanese tendency to underestimate ability when compared to American samples (Hymes & Akiyama, 1991).

The highest self-concept domain is dependability for the American sample with a total score of 37.70 (S.D. 3.90), and sociability for the Japanese sample with a total score of 32.01 (S.D. 7.27). The lowest score for the American sample was 33.52 (S.D.) for sociability and lowest score for the Japanese sample was 24.11 (S.D.) for competence.

Gender comparisons in self-concept scores showed less dissimilarity than cross-cultural comparisons. Differences in scores ranged from a difference of .07 in dependability (females higher) to a difference of 2.19 in competence (males higher).

Table 6.

Means, Standard Deviations and Ranges of the Multidimensional Test of Self-Concept

Scale	Culture				Gender			
	American		Japanese		Females		Males	
	Mean (Range) n = 136	SD	Mean (Range) n = 144	SD	Mean (Range) n = 157	SD	Mean (Range) n = 123	SD
Sociability	33.52 (9 - 42)	6.37	28.40 (15 - 42)	6.04	31.03 (9 - 42)	7.02	30.70 (16 - 42)	6.30
Competence	33.59 (18 - 42)	4.44	24.11 (10 - 42)	5.91	27.75 (12 - 42)	7.08	29.94 (10 - 42)	6.88
Dependability	37.70 (25 - 42)	3.90	26.58 (10 - 42)	5.79	32.01 (15 - 42)	7.27	31.94 (10 - 42)	7.74

The Social Support Scale for Children and Adolescents

Table 7 presents the descriptive statistics for the Social Support Scale for Children and Adolescents for both culture and gender. Scores on the subscales of this instrument could range from 1 - 4. The American sample's mean scores are quite high on the four social support domains, indicating that most American adolescents feel that they have good social support from parents, teachers, classmates and friends. Japanese scores were more moderate in these four areas. This is a rather surprise finding given the independence-interdependence cultural model presented earlier. It would be expected that if one were living in a sociocentric culture that higher levels of social support would be reported.

Differences in mean scores were not large, however. They ranged ranged from a difference of .09 in classmate support to .55 in friend support.

The American sample's highest social support domain was close friend support with a mean score of 3.56 (S.D. .63) whereas the Japanese sample's highest social support domain was classmate support with a mean score of 3.07 (S.D. .49). Both samples' lowest mean scores were in the area of teacher support - 3.05 (S.D. .69) for the American sample and 2.55 (S.D. .60) for the Japanese sample.

Again, gender comparisons showed less dissimilarity than cross-cultural comparisons, although females did score slightly higher in all four domains. Both females and males scored highest in the area of close friend support (M = 3.35, S.D. = .56 and M= 3.18, S.D. = .63, respectively) and lowest in teacher support (M = 2.85, S.D. = .67, and 2.71, S.D. = .71, respectively). Differences in scores ranged from a difference of .09 on parent support to a difference of .17 on close friend support.

Table 7.

Means, Standard Deviations and Ranges of the Social Support Scale for Children and Adolescents

Scale	Culture				Gender			
	American		Japanese		Females		Males	
	Mean (Range) n = 136	SD	Mean (Range) n = 144	SD	Mean (Range) n = 157	SD	Mean (Range) n = 123	SD
Parent	3.26 (1.17 - 4)	.73	2.98 (1.17 - 4)	.71	3.16 (1.17 - 4)	.77	3.07 (1.33 - 4)	.68
Classmate	3.16 (1.33 - 4)	.64	3.07 (1.67 - 4)	.49	3.16 (1.33 -4)	.55	3.05 (1.67 - 4)	.58
Teacher	3.05 (1 - 4)	.69	2.55 (1 - 4)	.60	2.85 (1 - 4)	.67	2.71 (1 - 4)	.71
Friend	3.56 (1.33 - 4)	.62	3.01 (1.5 - 3.67)	.43	3.35 (1.5 - 4)	.56	3.18 (1.33 - 4)	.63

Results from Analysis of Variance and Multiple Regressions

Analysis of mean Harvey IP Scores by Gender and Culture

A 2 x 2 (culture X gender) analysis of variance was computed to determine if there were interaction or main effects between culture and gender on Harvey IP scores as stated in the first hypothesis. Findings showed a nonsignificant F value of .098 for the interaction of gender and culture, and a nonsignificant F value of .048 for gender. However, a significant F value of 47.931 ($p < .001$) was obtained for the main effect of culture. These findings can be seen on Table 8.

Table 8.

Analysis of Variance by Gender and Culture

Source	Means	df	F
		Between Subjects	
Gender	35.84 (female) 35.46 (male)	1	.048
Culture	31.15 (American) 39.94 (Japanese)	1	47.931**
Gender x Culture		1	.098
Error		276	(112.093)

Note. Values enclosed in parentheses represent mean square errors.
*p < .05. **p < .01

Analysis of IP by Gender using Culture, Self-perception, Self-concept, and Social support variables

Split file regression analyses (by gender) were performed on the data in order to examine gender differences in IP among culture, self-perception, self-concept and social support predictors as stated in Hypothesis 2. Data from these analyses are shown in Table 9. For female subjects 51% of the variance in IP scores was accounted for by culture, self-perception, self-concept and social support (Rsq = .552; Adjusted Rsq = .508). This was a statistically significant finding with F = 12.512 (p < .001). Significant single predictors for females' IP were Scholastic Self-perception (B = -.226; t = -2.631; p = .009), Global Self-worth

(B = -.237; t = -2.365; p = .019), Sociability (B = -.200; t = -2.181; p = .031), and Dependability (B = -.259; t = -2.503; p = .013) and Friendship Support (B =-.259; t = -2.748; p = .007). Based on these regression results, IP would be expected to increase for females with decreased scholastic self-perceptions, less global self-worth, less sociability, less dependability and less friendship support.

For male subjects 40% of the variance in IP scores was accounted for by culture, self-perception, self-concept and social support (Rsq = .467; Adjusted Rsq = .398). This was a statistically significant finding with F = 6.752 ($p < .001$). The only significant single predictor for males was Friendship Support (B = -.310; t = -2.294; p = .024). Based on these regression results, IP would be expected to increase for males with less friendship support.

Due to the fact that Friendship Support was a significant predictor of IP for both females and males, calculations were performed to test for significant differences. The difference between the independent beta weights of Friendship Support was tested by dividing the difference of the unstandardized regression coefficients for each gender by the square root of the sum of the squared standard errors for each coefficient. Results showed a nonsignificant difference.

Table 9.

Regression Analysis by Gender for Combined Model Predicting IP

	Female Sample n = 157					Male Sample n = 123				
Scale	Beta	t	Rsq	Adj. Rsq	F	Beta	t	Rsq	Adj. Rsq	F
Overall model			.552	.508	12.512**			.467	.398	6.752**
Culture	.187	1.620				.040	.331			
Scholastic	-.226	-2.631**				-.077	-.723			
Athletic	.011	.184				-.009	-.103			
Physical	-.022	-.282				-.115	-1.167			
Behavioral	.048	.708				-.139	-1.497			
Close friend	.073	.771				.046	.361			
Global self-worth	-.237	-2.365*				-.091	-.803			
Sociability	-.200	-2.181*				-.189	-1.785			
Competence	.033	.353				.017	.143			
Dependability	-.259	-2.503*				-.112	-.815			
Parent Support	-.103	-1.436				.015	.166			
Classmate Support	-.064	-.764				-.072	-.683			
Teacher Support	.087	1.146				.097	1.092			
Friend Support	-.259	-2.748**				-.310	-2.294**			

*p < .05; **p < .01

Analysis of IP by Culture using Gender, Self-perception, Self-concept, Social support variables

Table 10 shows the data from the split file regression analyses (by culture) that were performed on the data in order to examine cultural differences in IP among gender, self-perception, self-concept and social support predictors as defined in Hypothesis 3. For American subjects 40% of the variance in IP scores was accounted for by gender, self-perception, self-concept and social support (Rsq = .460; Adjusted Rsq = .397). This was a statistically significant finding with F = 7.360 ($p < .001$). Only Friendship Support was a significant single predictor (B = -.418; t = -3.478; p = .001) for the American sample when taking into account all gender, self-perception, self-concept and social support variables. Based on these regression results, IP would be expected to increase for American adolescents with less friendship support.

For Japanese subjects 37% of the variance in IP scores was accounted for by gender, self-perception, self-concept and social support (Rsq = .434; Adjusted Rsq = .372). This, too, was a statistically significant finding with F = 7.053 ($p < .001$). Significant single predictors for Japanese subjects were Global Self-worth (B = -.299; t = -2.838; p = .005) and Teacher Support (B = .176; t = 2.435; p = .016). Based on these regression results, IP would be expected to increase for Japanese adolescents with less global self-worth and increased teacher support.

Table 10.

Regression Analysis by Culture for Combined Model Predicting IP

	American Sample n = 136					Japanese Sample n = 144				
Scale	Beta	t	Rsq	Adj. Rsq	F	Beta	t	Rsq	Adj. Rsq	F
Overall model			.460	.397	7.360**			.436	.375	7.118**
Gender	-.053	-.694				-.006	-.077			
Scholastic	-.104	-1.242				-.134	-1.801			
Athletic	.063	.791				-.066	-.897			
Physical	-.074	-.907				-.014	-.153			
Behavioral	.011	.129				-.110	-1.460			
Close friend	.205	1.645				.022	.239			
Global self-worth	-.038	-.360				-.299	-2.838**			
Sociability	-.193	-1.876				-.179	-1.799			
Competence	-.110	-1.099				.077	1.005			
Dependability	-.109	-1.228				-.141	-1.614			
Parent Support	-.009	-.099				-.084	-1.130			
Classmate Support	-.154	-1.435				-.033	-.334			
Teacher Support	-.033	-.377				.176	2.435**			
Friend Support	-.418	-3.478**				-.146	-1.423			

*p < .05; **p < .01

Analysis of IP and Self-Perception by Culture

In accordance with Hypothsis 4, split file regression analyses (by culture) were performed on the data in order to examine six levels of self-perception (Scholastic, Athletic, Physical, Behavioral, Close Friend, and Global Self-Worth) on IP among American and Japanese subjects.These results can be seen on Table 11. For American subjects 27% of the variance in IP scores was accounted for by self-perception (Rsq = .307; Adjusted Rsq = .274). This was a statistically significant finding with $F = 9.506$ ($p < .001$). Among the six self-perception variables, Close Friend Self-perception ($B = -.256$; $t = -3.220$; $p = .002$), and Global Self-worth ($B = -.304$; $t = -3.083$; $p = .003$) were significant predictors of IP for the American sample. Based on these regression results, IP would be expected to increase for American adolescents with decreased close friend self-perception and decreased global self-worth.

Among Japanese subjects 29% of the variance in IP scores were accounted for by self-perception (Rsq = .321; Adjusted Rsq = .291). This was a statistically significant finding with $F = 10.798$ ($p < .001$). Among the six self-perception variables, only Global Self-worth was a significant predictor of IP ($B = -.413$; $t = -4.326$; $p < .001$) for the Japanese sample. Based on these regression results, IP would be expected to increase for Japanese adolescents with decreased global self-worth.

The difference between the independent beta weights of Global self-worth was tested by dividing the difference of the unstandardized regression

coefficients for each culture by the square root of the sum of the squared standard errors for each coefficient. Results showed a nonsignificant difference.

Table 11.

Regression Analyses by Culture for Self-Perception Variables Predicting IP

Predictor Variables	American Sample n = 136 B	t	Rsq	Adj. Rsq	F	Japanese Sample n = 144 B	t	Rsq	Adj. Rsq	F
Overall model			.307	.274	9.506**			.321	.291	10.798**
Scholastic	-.102	-1.286				-.079	-1.076			
Athletic	-.063	-.810				-.110	-1.478			
Physical appearance	-.032	-.379				.025	.273			
Behavior	-.041	-.480				-.129	-1.709			
Close Friend	-.256	-3.220**				-.152	-1.912			
Global self-worth	-.304	-3.083**				-.413	-4.326**			

*p < .05; **p < .01

Analysis of IP and Self-Concept by Culture

Based on Hypothsis 5, split file regression analyses (by culture) were performed on the data in order to examine three levels of self-concept (Sociability, Competence and Dependability) on IP among American and Japanese subjects. This data is shown in Table 12. For American subjects 31% of the variance in IP scores was accounted for by self-concept (Rsq = .324; Adjusted Rsq = .309). This was a statistically significant finding with F = 14.584 ($p < .001$). All three levels of self-concept reached significance. Sociability (B = -.270; t = -3.139; p = .002), Competence (B = -.538; t = -2.421; p = .017) and Dependability (B = -.602; t = -2.641; p = .009) were significant predictors of IP. Based on these regression results, IP would be expected to increase for American adolescents with less of a sense of sociability, competence and dependability.

Among Japanese subjects 22% of the variance in IP scores were accounted for by social support (Rsq = .238; Adjusted Rsq = .222). This was a statistically significant finding with F = 14.584 ($p < .001$). Among the self-concept variables, Sociability (B = -.588; t = -3.970; $p < .001$) and Dependability (B = -.369; t = -2.304; p = .023) were found to be significant predictors of IP. Based on these regression results, IP would be expected to increase for Japanese adolescents with less of a sense of sociability and dependability.

The difference between the independent beta weights of Sociability was tested by dividing the difference of the unstandardized regression coefficients for each culture by the square root of the sum of the squared standard errors for each coefficient. Results showed a nonsignificant difference. The same was done

for beta weights for Dependability and, again, results showed a nonsignificant difference.

Table 12.

Regression Analyses by Culture for Self-Concept Variables Predicting IP

Predictor Variables	American Sample n = 136 B	t	Rsq	Adj. Rsq	F	Japanese Sample n = 144 B	t	Rsq	Adj. Rsq	F
Overall model			.324	.309	21.109**			.238	.222	14.584**
Sociability	-.279	-3.139**				-.352	-3.970**			
Competence	-.217	-2.421*				.070	.905			
Dependability	-.213	-2.641**				-.212	-2.304*			

*p < .05; **p < .01

Analysis of Social Support and IP

Split file regression analyses (by culture) were performed on the data in order to examine four levels of social support (Parent Support, Classmate Support; Teacher Support; and Friendship Support) on IP among American and Japanese subjects as stated in Hypothsis 6. These results are shown in Table 13. For total American subjects 35% of the variance in IP scores was accounted for by social support (Rsq = .367; Adjusted Rsq = .348). This was a statistically significant finding with F = 18.983 ($p < .001$). Classmate Support (B = -.270; t = -3.057; p = .003) and Friend Support (B = -.326; t = -4.141; $p < .001$) were found to be significant social support predictors of IP among the American sample. Based on these regression results, IP would be expected to increase for American adolescents with less classmate support and less friendship support.

Among Japanese subjects 19% of the variance in IP scores were accounted for by social support (Rsq = .212; Adjusted Rsq = .189). This was a statistically significant finding with F = 9.352 ($p < .001$). Parent Support (B = -.164; t = -2.070; p = .040) and Classmate Support (B = -.244; t = -2.454; p = .015) were found to be significant social support predictors of IP among the Japanese sample. Based on these regression results, IP would be expected to increase for Japanese adolescents with less parent support and less classmate support.

The difference between the independent beta weights of Classmate Support was tested by dividing the difference of the unstandardized regression coefficients for each culture by the square root of the sum of the squared standard errors for each coefficient. Results showed a nonsignificant difference.

Table 13.

Regression Analyses by Culture for Social Support Variables Predicting IP

	American Sample n = 136					Japanese Sample n = 144				
Predictor Variables	B	t	Rsq	Adj. Rsq	F	B	t	Rsq	Adj. Rsq	F
Overall model			.367	.348	18.98**			.212	.189	9.352**
Parent Support	-.110	-1.31				-.164	-2.07*			
Classmate Support	-.270	-3.06**				-.244	-2.45*			
Teacher Support	-.069	-.83				.104	1.36			
Close Friend Support	-.326	-4.14**				-.186	-1.91			

*p < .05; **p < .01

Summary of Results

This chapter has presented the data regarding the relationships between the Imposter Phenomenon and gender, culture, self-perception, self-concept and social support. Descriptive data were presented for all of the instruments for both genders and both cultures. An analysis of variance was conducted using gender and culture on IP scores and a single main effect for culture was found.

Regression analyses were used to determine significant predictors for IP for each gender. These findings revealed that friendship support was a common predictor for both genders, and scholastic self-perception, global self-worth, sociability and dependability were unique significant predictors for females.

Regression analyses were also used to determine significant predictors for IP for each culture. Using a combined model with all of the instruments, friendship support was a significant predictor of IP for the American sample and global self-worth and teacher support were significant predictors of IP for the Japanese sample.

Regression analyses were also used with each individual instrument in order to further explore similarities and differences between the cultures on IP predictors. Among self-perception variables, global self-worth was common predictor for both cultures, and friendship support was a unique predictor for the American sample. Among self-concept variables, sociability and dependability were common predictors for both cultures and competence was a unique predictor for the American sample. Among social support variables, classmate support was a common predictor for both cultures, friendship support

was a unique predictor for the American sample, and parent support was a unique predictor for the Japanese sample.

CHAPTER V: DISCUSSION

The present study was conducted in order to investigate the roles of gender, culture, self-perception, self-concept and social support in the development of imposter feelings in a sample of American and Japanese adolescents. These populations were selected because of the minimal research which has been done regarding the developmental and cultural aspects of IP. This chapter provides a summary of this research, a general discussion of the results, a discussion of the Harvey IP Scale, implications of this research, a discussion of the cross cultural aspects of this study and limitations of this research.

Adolescent IP and Achievement

The data from this study supports previous research among American samples (Cromwell, 1990; Stahl et al. 1980) that IP exists among adolescents at about the same rate as in adult populations. The mean of 31.15 in this American sample was very similar to the mean of 29.33 found in Harvey's (1981) nonhonor undergraduate students, and to the mean of 31.56 found in Lawler's (1984) study with graduate and undergraduate students. It is also very close to Eschbach's (1990) findings that the averaged mean IP score for seven different studies was 32.16. This suggests that IP feelings are already well established by adolescence and that there is an earlier etiology of IP. This supports Clance and Ime's (1978) and Clance and O'Toole's (1987) original hypothesis that IP begins early in childhood.

This study's mean IP score of 31.15 for an average American suburban adolescent sample is also similar to Cromwell's mean IP score of 32.08 from an American English honors adolescent sample, suggesting that feelings of fraudulence among adolescents may not be unique to high achieving students. This supports previous research which has found no significant relationship between IP and grade point average (Beard, 1990; Cromwell, 1990; Langford, 1990). Grays (1992) found that more than half of her identified imposters were nonachieving imposters (defined by self-report high school grade point average).

Other studies also indicate that IP may not be related to achievement. Chae et. al.'s (1995) study found a nonsignificant correlation between IP and education among Korean Catholic adults, and McIntyre's (1990) findings with adult women found that homemakers did not differ from nontraditional career women in mean IP scores.

These findings conflict with Clance and Imes's (1978) construct of an imposter as a high achieving individual. Perhaps there are varying types of imposters (i.e. achieving and nonachieving). Or perhaps the experience of IP centers on other aspects of the self rather than intelligence/achievement. Future research is needed in order to develop a classification of imposters.

IP and Gender

The data from this study suggest that the experience of having impostor thoughts and feelings is not gender-specific. Mean IP scores of adolescent females in this study were almost identical to the mean IP scores of adolescent males (35.84 and 35.46, respectively). This supports the majority of the research

regarding gender and IP (Harvey, 1981; Lawler, 1984; Topping, 1983), including Cromwell's (1990) study with adolescents, but is contrary to Clance and Imes' (1978) original hypothesis that girls experience feelings of fraudulance in greater proportion to boys. It would appear that adolescent boys as well as girls report similar feelings of fraudulence.

However, the gender-specific picture that does emerge is that adolescent female and male imposters appear to have differing self-perceptions and differing social support deficits. Factors which may lead adolescent females to be more vulnerable to IP may not be the same factors that lead adolescent males to experience IP. Although self perception, self-concept and social support domains are important components in the development of IP for both adolescent females and males, they may be particularly relevant for females.

When examining the combined model of cultural, self-perception, self-concept and social support predictors of IP for each gender, a greater proportion of the variance in IP scores is accounted for in female subjects than in male subjects (51% vs. 40%). Specifically, 11% more of the variance in IP scores is accounted for in female IP scores than in male IP scores in this model, suggesting that culture, self-perception, self-concept and social support may be a better model for predicting IP scores for females than for males. Among the individual variables, deficits in scholastic self-perception, global self-worth, sociability, dependability and friendship support were all significant predictors of fraudulent feelings for girls, whereas only friendship support deficits was a significant predictor of IP for boys.

But while both adolescent female and male imposters appear to withdraw from having close friends, imposter girls also perceive themselves as less worthy, less outgoing, less able to engage in trusting relationships and less genuine in all of their social interactions. It appears that girls' sense of authenticity, more than boys', is heavily determined by their relationships and their sense of themselves within those relationships.

For adolescent girls it appears that connecting with others in meaningful ways is constructed as a defining part of an authentic self. This supports feminist theory which maintains that women's healthy development happens in interdependent, mutually empowering relationships. Kaplan and Klein (1991) suggest that the interacting sense of self is present in infancy for both genders but while its development is impaired in boys, for girls it becomes the center around which the self becomes organized. They maintain that, for women, the being in mutually empathic relationships serves as "important motivations for action, and sources of self-esteem and self-affirmation" (p. 123).

Miller and Stiver (1997) suggest that women are able to develop a sense of authenticity by experiencing the freedom to speak their true thoughts and feelings in relationships. They assert that it is within relationships that women feel self-enhanced. Therefore, if women perceive themselves as disconnected from others, they may experience less comfort with themselves and be at greater risk for developing feelings of fraudulence.

These findings also support the findings of Beard (1990) who found major gender differences in the personalities of male and female imposters. In her

sample, female imposters were described as self-protective, cautious, lacking in social initiative, and avoiding of interpersonal connections, whereas male imposters were more accepting of social interactions and did not tend to withdraw from social contact. Although both genders doubted their abilities to succeed, their interpersonal styles were quite different.

The similarity of females' and males' lack of friendship support supports previous findings which identified imposters as feeling socially inadequate (Cromwell, 1990; Grays, 1992) and as introverts with limited affiliations (Holmes, 1986; Lawler, 1984; Prince, 1989). It appears that both genders of adolescent imposters guard themselves against developing close peer relationships in order to maintain the secrecy of their imposter feelings.

Another gender difference in this study appeared to be female adolescent imposters' negative sense of their scholastic abilities. This finding supports Clance and Imes' (1978) conceptualization of the female imposter as one who doubts her skills and abilities, and as one who won't allow herself to feel powerful because of fear of abandonment. It also maintains AAUW's (1992) report that girls lose much of their self-confidence as they move from childhood into adolescence.

IP and Culture

When examining differences in IP scores based on gender and culture, differences were attributed to the main effect of culture rather than to an interaction effect or to the main effect of gender. Mean IP scores for American subjects and Japanese subjects were 31.15 and 39.94, respectively. It would

appear that Japanese students experience feelings of fraudulence in greater proportion to American students.

This finding was inconsistent with findings from the only other cross cultural study on IP. The finding that Japanese students experience IP more than American students appears to contradict Chae et. al.'s (1995) findings with an adult Korean sample that IP feelings are experienced more among Americans than Koreans. Although it is recognized that Japan and Korea are unique countries with their own languages, traditions and norms, both share Chinese and Buddhist roots which have evolved into more sociocentric cultures than countries with European roots (like the U.S.). Therefore, it would be reasonable to expect similar findings when comparing these cultures to a Western culture. However, differing instrumentation and statistical techniques may have accounted for these inconsistent findings.

The finding that IP exists in greater proportion among Japanese adolescents than American adolescents should be interpreted with caution, however. Previous research has found that Japanese students overall attribute their success more to external factors and attribute failure more to internal factors (Kashima & Triandis, 1986). This tendency to minimize one's successes may be part of a cultural norm rather than an anxiety-producing sense of fraudulence. Japanese students are taught from early elementary school to engage in *hansei* - a critical self-reflection used to consider personal and social acceptability (White, 1993).

Japanese youth also behave in ways that accommodate others rather than assert their own private ideas and beliefs. Being "true to oneself" in the American sense and standing out from the group would be considered a sign of immaturity in the Japanese culture (White, 1993). Although Japanese adolescents are aware of the lack of congruence between their own feelings/desires and the expectations of a situation, they accept this and may not experience it as discomforting to their sense of self. Future research is needed in order to identify if imposter feelings for Japanese youth are simply a reflection of cultural practices and norms, or are, indeed, tied to the American IP constructs of anxiety, defensiveness, fear of success and fear of failure.

Combined IP Predictors by Culture

When examining the combined model of gender, self-perception, self-concept and social support predictors of IP for American and Japanese adolescents, a similar proportion of the variance in IP scores is accounted for in both cultures (40% for the American sample and 38% for the Japanese sample). Among these variables, deficits in friendship support appear to create the greatest vulnerability to feelings of fraudulence in the American sample, whereas poor global self-worth and increased teacher support created the greatest vulnerability to feelings of fraudulence in the Japanese sample.

The finding that poor friendship support is a significant predictor of IP among American adolescents supports Prince's (1989) findings that imposters are introverts and guard themselves against unnecessary interactions with others. But where interactions with parents and teachers may be unavoidable,

more intimate interactions (as with close friends) can be avoided. The nature of a friendship relationship also implies a certain amount of self-disclosure which would certainly be avoided by those who feel they must hide their true selves.

It may be, also, that American adolescents expect greater emotional fulfillment from close friends than from parents, extended family, peer group membership, etc. The nature of psychosocial development among adolescents in an independent culture would support the breaking away from parents and family. Consequently, the attachment to close friends would be vital in maintaining a sense of connection to others. It seems that American adolescents may be more vulnerable to imposter feelings if they do not feel supported by close friends.

The finding that teacher support was a significant predictor of IP for the Japanese adolescent sample was an unexpected finding. It may be that Japanese adolescent imposters perceive increased teacher support as a message that they are personally incompetent. This would support Cromwell's (1990) findings that imposters become irritated with help, and Grays's (1992) findings that imposters rarely ask questions of their teachers.

It is also noteworthy that, unlike American schools, Japanese schools begin the elementary years with attitudes of indulgence and end in the high school years with extreme control. Teachers are often required to go into the streets and shopping centers to make sure that adolescents are not in undesirable places (White, 1993). This increased discipline and regulation by teachers in high school may be perceived as interference rather than support by the Japanese

adolescent imposter. For the Japanese adolescent imposter, increased attention from teachers may be perceived as being in trouble and tap into the Japanese sense of shame.

This finding may also explain Cohen's (1990) findings which showed that under stressful conditions, when support is introduced into a situation (rather than asked for), imposters perceive the support as a message that their performance is substandard. She found that social support through being listened to by others correlated positively with IP when it appeared in combination with high environmental ambiguity and low tolerance for ambiguity.

IP and Self-perception by Culture

Harvey and Katz (1985) suggested that imposters tend to compartmentalize various aspects of the self and harbor imposter feelings in only selected areas of their lives. Using a Harter's model of self-perception (scholastic self-perception, athletic self-perception, physical self-perception, behavioral self-perception, close friend self-perception and global self-worth), both American and Japanese cultures showed similar amounts of variance in IP scores (27% for the American sample and 29% for the Japanese sample). Among the six self-perception areas, poor global self-worth was a significant predictor of IP for both American and Japanese students and the only significant single predictor among self-perception variables for the Japanese students. In addition to poor global self-worth, American imposters also had poor self-perceptions of themselves as close friends.

Poor global self-worth has repeatedly been shown in the literature to be correlated with high IP scores. Among other American studies Topping (1983) identified a negative correlation between IP and self-esteem, and Eschbach (1990) found self-esteem (operationalized as self-concept) to be a better predictor of IP than achievement tendency, effort, luck, ability, sex-role or career commitment. The additional finding of this study is that poor global self-worth appears to significantly predict IP cross culturally. These generalized negative feelings about the self appear to impact feelings of fraudulence to a greater extent than even context-specific negative feelings about the self. However, this finding contradicts Clance and Imes' (1978) assertion that IP tendencies are limited to negative self-evaluations in specific areas of one's life.

The importance of self-worth has long been accepted as a foundational aspect of psychological health. This study supports the previous research which has shown that a negative generalized sense of personal worth impairs one's abilities to develop self-consistency or an authentic sense of self (Eschbach, 1990; Topping, 1983). Identity development is distorted because one must hide the true self and develop a repertoire of behaviors that are assumed to be more pleasing to others. One must replace an unacceptable self with an acceptable façade.

Although findings from this study lend support to the idea that global self-worth may be a generalizable predictor of IP, they also reveal a cultural difference in the relationship between IP and self-perception. Findings suggest that American adolescent imposters do not perceive themselves as having close friends, whereas Japanese imposters do not seem to have difficulties in this

domain of self-perception. American adolescent imposters seem to lack the trust that is needed for personal relationships - relationships that allow for the disclosing and sharing of intimate thoughts and feelings.

This finding among the American sample supports previous research regarding adolescent imposters. Cromwell (1990) found that adolescent imposters pay less attention to the thoughts and feelings of others than do nonimposters, and Grays (1992) found that imposters were not as likely as nonimposters to offer support to friends experiencing personal problems. American adolescent imposters seem to lack either empathy, social skills or confidence in their abilities to make close peer connections. They are described as loners who must hide their true selves and, therefore, feel that they cannot risk allowing others to get too close.

Although further research is needed in order to better understand the meanings and implications of this cultural difference, it is speculated that the Japanese adolescent may be better socialized in the processes of interpersonal relationships and, therefore, despite feelings of fraudulence, is able to maintain close friendships. This finding supports Mizuno's (1999) cross cultural research regarding the psychosocial development of adolescents which found that intimacy and relationship are closely related to identity formation for the Japanese adolescent. It also appears to support Markus and Kitayama's (1991) theory of distinct cultural views of the self, which suggests that an independent view of the self is developed in Western cultures where autonomy and

uniqueness are valued and an interdependent view of the self is developed in Eastern cultures where connectedness and similarity are valued.

Although self perceptions in general relate to IP, a rather surprising finding is that other specific competency domains of self-perception do not appear to be associated with IP among American and Japanese adolescents. This is contrary to adult studies which have found imposters to feel physically and professionally inadequate (Grays, 1992; Hirschfield, 1982). One would expect that negative scholastic or athletic self-perceptions would be associated with feelings of fraudulence. However, discrepancies between adolescents' perceptions of their successes and their aspirations in specific domains do not appear to contribute to imposter feelings in the same way that they do for adults. It appears that among adolescents a more global negative self-perception contributes to imposter feelings more than domain-specific negative self-perceptions. This study's cross cultural finding that poor global self-worth significantly predicts IP supports Cromwell's (1990) findings that adolescent imposters have a generally unfavorable image of themselves.

IP and Self-concept by Culture

Continuing to explore imposters' attitudes regarding specific domains of the self, a broader model of self-concept (Lathrop's MTS) was used to predict IP. In this model 31% of the variability in IP scores were accounted for in the American sample and 22% of the variability in IP scores were accounted for in the Japanese sample. Among the three self-concept variables of sociability, competence, and dependability, all three were significant predictors of IP for the

American subjects, whereas only sociability and dependability were significant predictors of IP for Japanese subjects.

What is striking about this finding is that a sense of competence appears to be less consequential to the development of IP for the Japanese imposter than a sense of sociability or dependability. This may be related to Japanese students' beliefs that performance is based more on effort than ability (Holloway, 1988). It has been reported that Japanese high school students spend approximately 41.5 hours doing homework each week, compared to 3.8 hours for the American student (White, 1993). Japanese high school students also often attend "cram" classes - classes where there is additional preparation for college entrance exams.

Another explanation for the finding that a sense of competence was not a significant predictor of IP for the Japanese student may be the Japanese custom to understate one's strengths and abilities. Most Japanese individuals take very modest, almost self-deprecating, positions when interacting with others. It has been noted that Japanese teachers often recognize that students returning to Japan after time in the United States have less *enryo* (hesitation, modesty) (White, 1993).

The finding that sociability and dependability were significant predictors of IP for both cultures supports Cromwell's (1990) findings that factors labeled Sociability and Impulsive significantly differentiated imposters from nonimposters. Despite Clance and Imes' (1978) description of IP as a phenomenon of feeling incompetent despite external success, these findings suggest that feelings of fraudulence may be tied more closely to one's abilities to

relate to, be responsible to, and be validated by others. It would seem that in developing an authentic sense of self, one needs positive connections to others where there is a sense of connection and responsibility.

This supports symbolic interaction theory and self-in-relation theory which states that psychological growth depends on positive interaction with others (Baldwin, 1897; Cooley, 1902; Gilligan, 1982; Jordan et. al., 1991; Mead, 1934; Miller, 1986). One cannot develop a sense of worth without people to recognize and identify with one's experiences. It would appear that adolescent impostors are lacking these consistent experiences of joined emotional connection. They miss out on opportunities of mutual empathy which is the foundation for mutual empowerment and authenticity (Miller & Stiver, 1997).

IP and Social Support by Culture

Findings from this study regarding IP and social support reinforce Harter et. al.'s (1998) study of false self behavior which indicated that if significant others do not validate and support an adolescent's thoughts and experiences, the true self goes into hiding. The variance in IP scores which is accounted for by Harter's Social Support Scale for Children and Adolescents was significant for both American and Japanese samples. It appears that the need for support from significant others may be a universal aspect in the development of an authentic sense of self. A sense of relational support gives the adolescent the sense of safety she needs in order to express her true self.

This supports self-in-relation theory which proposes that an inner sense of connection to others is an organizing feature of development. Miller & Stiver

(1997) suggest that when someone "goes with us in the feelings" we are more able to accept our feelings as legitimate (p.33). This experience of genuinely expressing thoughts and feelings has the effect then of moving one into a place of greater confidence and assurance.

An interesting cross cultural finding was that the percent of variance which was accounted for by social support was much larger for the American sample than for the Japanese sample (35% for the American sample and 19% for the Japanese sample). This was a surprise finding given that sociocentric cultures such as Japan see others as actively and continuously participating in the definition of the self (Markus & Kitayama, 1991). While both independent and interdependent views of the self use social comparison for self-validation, the interdependent view (i.e., Japanese) sees others as an indivisible part of the self. It would seem that the lack of perceived social support would greatly effect IP scores among Japanese adolescents. A possible explanation for these findings may be that because the Japanese adolescent sense of self is already so embedded in a social, relational template that these variables are lesser factors than other factors in the development of IP. However, future research is needed in order to explore the nature of social support in the development of IP cross culturally.

Among the four levels of social support the lack of classmate support and the lack of friendship support significantly predicted IP for the American sample and the lack of classmate support and the lack of parent support significantly predicted IP for the Japanese sample. For both American and Japanese subjects it appears that it is important to feel the support of classmates (one's peer group) in

order to decrease imposter feelings. These findings are consistent with the peer literature (Harter, 1999; Savin-Williams & Berndt, 1990) which asserts that peer relationships serve critical functions for the developing adolescent identity. Peer relations allow the adolescent to express thoughts and feelings in an atmosphere of like-minded others. More than in childhood, adolescents spend large amounts of time with their peers. In order to feel a sense of personal authenticity, both the American and the Japanese adolescent need to feel accepted and supported by the peers with whom they spend most of their day.

Peer support appears particularly relevant for the American adolescent who also appears to need the support of close friends in order to ward off feelings of fraudulence. Despite the focus of previous research which found that imposters described their families of origin as unsupportive and emotionally distant (Bossotti, 1990), American adolescent imposters appear to feel a greater lack of peer/close friend support than a lack of parent or teacher support.

The finding that low parent support was not a significant predictor of IP among American adolescent imposters in this study was a surprise finding. Previous research has found parent support to make a significant contribution to adolescents' global self-esteem (Harter, 1990) and to adolescents' true/false self behavior (Harter et. al., 1996).

The finding in this study that low parent support was not an American adolescent predictor of IP contradicts previous IP research which found imposters' families to be emotionally distant and rigid (Bossotti, 1990). Unlike this study, previous research has identified imposters' memories of their parents

as disinterested, nagging and emotionally unsupportive (Grays, 1992), much like Clance and Imes' (1978) original hypothesized imposter family.

One explanation for this contradictory finding may be that previous research has examined adult imposters' retrospective accounts of their families of origin while this study examined adolescents' current feelings about parent support. Retrospective accounts may tap into earlier childhood feelings. Differing constructs and differing instrumentation may also account for these seemingly contradictory findings. It may be that while parent support continues to play an important part in American adolescents' behavior and sense of value, it plays less of a part in adolescents' sense of authenticity and identity.

However, this does not appear to be the case among Japanese adolescent imposters. Poor parent support does significantly predict imposter feelings for Japanese adolescents. This finding supports IP theory which posits that incongruent family communications, role rigidity, lack of recognition and praise, and lack of family cohesion contribute to the development of IP (Bussotti, 1990; Clance, 1985; Grays, 1992).

Poor parent support may be a significant predictor of IP among Japanese adolescent imposters, and not American adolescent imposters, because Japanese children typically retain closer ties to their families of origin and often do not leave home until marriage in their late 20s. Where American adolescents are already anticipating leaving home at age 18 and shifting their support systems to peers, Japanese adolescents are continuing to maintain strong relational ties to their families.

The finding that poor parent support significantly predicts IP for Japanese adolescents (and not American adolescents) may reflect cultural differences in parent-child relations in general. Japanese parents tend to have a nurturant relationship with their children - without the generation gap that is experienced in many American homes (White, 1993). Previous research has also found that Japanese parents exercise more control over their children's goals and assume a greater share of blame or credit for their children's failures and successes than do American parents (Mizuno, 1999).

Further contributions to the strong parent-child connection in Japan is the growing trend to have small families (the average Japanese family now has 1.53 children) and the limited space within which families must reside (White, 1993). But rather than creating conflict, these dynamics appear to strengthen intergenerational ties. Japanese adolescents most frequently named their parents as people they most looked up to (White, 1993). Japanese youth expect their parents to be actively involved in their lives and to share with their parents self-defining aspects of their lives. Parent support for the adolescent in Japan, therefore, is a pertinent and important variable in authentic or fraudulent identity development.

Harvey IP Scale

Contrary to former reliability studies on the Harvey IP Scale, which reported good internal consistency reliabilities (Harvey, 1981; Holmes et al., 1993), the internal consistency reliabilities of the Harvey IP Scale for this study were low. Cronbach's alpha was .70 for the American sample and .62 for the

Japanese sample. Since there is no other reported reliability data on the Harvey IP Scale with adolescent subjects, it may be that the Harvey IP Scale needs to be further researched and possibly revised for use with an adolescent sample.

Due to the fact that Cronbach's alpha is based on the average intercorrelations among the questionnaire's items, intercorrelations of the scale's items were examined. For the American sample, Item 9 ("My personality or charm makes a strong impression on people in authority.") and Item 11 ("In discussions, if I disagree with my professor or boss, I speak out.") had the poorest internal consistencies. Item 9, in particular, was problematic with nine significant negative correlations with the other items.

This study's discovery that Item 9 is problematic to the internal consistency of the Harvey IP Scale is similar to other studies' findings which have identified the problematic nature of item 9 across varied populations and varied environments (Cohen, 1990). This would suggest that the item detracts from the reliability of the Harvey IP Scale and, ultimately, from the validity of the instrument. When Item 9 was removed from the scale alpha increased from .70 to .75 for the American sample.

Internal consistency reliability of the Harvey IP Scale was even more difficult to obtain in the Japanese translations. Although several efforts were made to obtain "adaptable" translations (Carlson, 2000), American and Japanese students do not appear to understand the sentence meanings of the Harvey IP Scale in the same way. The translated instrument may not have accurately

conveyed subtle connotations of words and questions - their affect, clarity and familiarity - to a sample of Japanese adolescents.

Intercorrelations of the scale's items were also examined in the Japanese sample. Item 5 ("I feel Ideserve whatever honors, recognition, or praise I receive."), Item 9 ("My personality or charm makes a strong impression on people in authority.") and Item 12 ("I often achieve success on a project or test when I have anticipated I would fail.") had the poorest internal consistencies. Again, Item 9 was the most problematic item with six significant negative correlations with the other items. When Item 9 was removed from the scale, alpha increased from .62 to .68 for the Japanese sample.

This study's use of the Harvey IP Scale in Japanese certainly demonstrated the measurement and conceptual difficulties that emerge in cross cultural research. In addition to the language challenges, grammatical differences in English and Japanese also presented difficulties in establishing sentence/question structure. Literal word-by-word translation was inappropriate (often making sentences incomprehensible) so attempts were made to capture the meaning of the item. However, the change in sentence structure may have compromised the meaning in Japanese. Translations of existing instruments have also been shown to change psychometric properties. Cultural differences in response patterns, lower reliabilities and altered distribution scores all have statistical methodological implications (Carlson, 2000).

Despite reliability concerns, the Harvey IP Scale was used as written in order to compare the current results to previous findings in the literature. But, due to the problematic nature of Item 9 in both languages, and the increase in alpha for both American and Japanese samples with its removal, data analyses were repeated using this Revised Harvey IP Scale (Item 9 deleted). However, given that the current study is a correlational analysis, the removal of one item from the Harvey IP Scale influenced the results of the study. Appendix G shows the complete revised data analysis.

Similar to the earlier findings, a significant main effect was found for culture when comparing mean IP scores on culture and gender. It appears that that Japanese adolescents do experience imposter feelings in greater proportion to American adolescents.

When examining variables that contribute to imposter feelings for each gender, findings using the Revised IP Scale were somewhat different from the original analyses. Although, like the original analysis, the combined influence of culture, self-perception, self-concept and social support variables were statistically significant models for both genders, the amount of variance accounted for was much less in the revised analyses. Twenty-three per cent of the variance in Revised IP scores was accounted for in the female sample (vs. 51% in the original analysis) and 20% of the variance in Revised IP scores were accounted for in the male sample (vs. 40%). Culture was the only significant single predictor for females whereas scholastic self-perception, global self-worth, sociability, dependability, and friend support were significant predictors in the

original analyses. There were no single significant predictors for males in the revised analyses although friend support had been a significant predictor for males in the original analyses.

Much greater differences appeared in the regression analyses comparing the two cultures. In none of the analyses did the American sample show significance for any of the self-perception, self-concept, social support, or combined models, despite significance in all of the original analyses.

The Japanese results were much closer to their original results. In the combined model of gender, self-perception, self-concept, and social support, 40% (vs. 38% in the original analysis) of the variance was accounted for in Revised IP scores. Significant single predictors were scholastic self-perception, global self-worth , and teacher support - similar to the original findings of global self-worth and teacher support. In the model which examined the influence of the six self-perception variables on Revised IP, Japanese subjects showed 32% variance compared to 29% variance in the original analysis. In both analyses only global self-worth was a significant single predictor. In the self-concept model 25% of the variance in Revised IP scores were accounted for by sociability, competence and dependability which is similar to the 22% which was the result of the original analysis. And, finally, social support accounted for 19% of the variance in both Revised IP scores and the original IP scores for the Japanese sample. Like the original analyses, parent support and classmate support were found to be significant social support predictors of Revised IP scores.

Implications

The results of this study indicate that IP exists at approximately the same rate in adolescence as it does in adults, thereby suggesting an earlier etiology of imposter feelings. For the prevention of IP, focus and research may need to be at the developmental stages of childhood or earlier in adolescence. Further research is needed in order to examine children's IP feelings and the family dynamics which may contribute to the suppression of an authentic self. But while IP feelings may begin in childhood, this study suggests that its continuance through the teen years appears to be tied to poor peer relationships and a general sense of low self-worth.

These findings that low self-worth and poor peer support predict IP among adolescents are supported cross-culturally. This suggests that certain aspects of IP may be generalized to varying populations. What continues to be unclear is whether adolescents who distort their true/authentic selves do so because they have a generalized negative self-image and do not feel validated by their own peer group, or whether adolescents who have generalized negative self-worth and do not feel supported by their peer group do so because they have imposter feelings.

Differences in the cross cultural findings of this study, however, suggest that IP cannot be wholly understood in simplistic, universal variables. Conditions which contribute to imposter feelings are varied across cultural contexts. For American adolescents it would seem that peers have a tremendous impact in the perpetuation of IP feelings; for the Japanese adolescent, although

peers have some impact on feelings of fraudulence, adults (both parents and teachers) significantly contribute to IP feelings as well. These are important findings if appropriate interventions strategies are to be designed.

Although this study focused on two international cultures, there exists a multiplicity of cultures/subcultures within our own country. In order to effectively assist children and adolescents in developing authentic self-images it is important that we are sensitive to the differing needs and values of diverse populations.

Because perceptions of fraudulence result in emotions and behaviors which produce personal and social consequences, intervention strategies are needed that ameliorate IP feelings for the adolescent. One such intervention strategy for American adolescents would be a group therapy model which, not only included esteem-building activities, but also facilitated strong peer interactions. A group therapy model provides an empathic, supportive and accepting atmosphere for its members express strong feelings towards one another and learn how to work through them. Group members could learn that others experience feelings of fraudulence and poor social support. Issues such as self-expectations, trust, assertiveness, healthy relationships, social skills, and identity formation could all discussed and rehearsed.

Given the differences in IP predictors for females and males, gender-specific programming would be indicated as well. Although further research is needed in order to identify additional predictors for adolescent male imposters, this study identified several self-perception, self-concept and social support

variables which contribute to feelings of fraudulence for adolescent females. In particular, adolescent female imposters appear to need a boost in their academic self-confidence.

Similar to the recommendations made in the AAUW Report (1992), programs aimed at reducing IP among adolescent girls would include strategies to bolster academic aspirations and challenges, especially pursuits in math and science. They would advocate for curriculum that includes the experiences and successes of women, and implement mentoring programs. They would encourage girls to voice their needs for academic support and their objections if classroom practices favored boys.

In addition to heightening academic confidence, gender-specific programming for girls at risk for IP would also include a strong focus on social and emotional connections. Based on the results of this study, enhancing adolescent girls' sense of sociability, dependability, and friendship support would significantly ameliorate feelings of fraudulence. Therefore, IP programs for girls would facilitate the expression of emotional needs as well as the hearing and responding to the needs of others. Programs would provide "safe places" for girls to express themselves and to practice the cooperation skills needed for mutually empowering relationships. Surrey (1991) describes this as "relationship-authenticity" - the ability to stay energetic, honest, and real in relationships (p. 170). Assisting girls in developing this kind of relational competence would not detract from performance or agency, but would enhance these in the context of empowering relationships.

Conclusions

The present study was an exploration of gender, cultural, self-perception, self-concept and social support factors under which the Imposter Phenomenon is most likely to occur. Its contributions to the literature are several. It extends the previous adult research to adolescence and expands our developmental understanding of IP; it recognizes the diverse appearances of IP and its correlates by examining cultural and gender-specific samples; it examines multiple self-perception, self-concept and social support domains which predict IP; and, lastly, it provides an examination of the Harvey IP Scale.

The results of this study suggest that imposter feelings are well-established by adolescence and, most probably, have an earlier developmental etiology. There is also indication that IP feelings do not appear to be limited to high-achieving individuals. Average achieving adolescents experience IP feelings in the same proportion as high achieving students. Research and intervention strategies should broaden to all levels of achievement and not be limited to honor students.

This research has also extended our knowledge of IP across cultures and across genders. Although IP exists at approximately the same rate among girls as it does boys, different variables emerged for each gender as factors contributing to fraudulent feelings. Cross-cultural evidence, also, exists through this study that IP may not be a uniquely Western phenomenon. Japanese adolescents appear to experience feelings of fraudulence at a greater rate than American adolescents.

This study also adds to our knowledge of how feelings of fraudulence and the self-perceptions, self-concepts, and social supports that contribute to those feelings are moderated by cultural values and norms. Contributing factors to IP among American and Japanese adolescents included both shared and unique qualities. For the American adolescent, strong predictors of IP had to do with peer relationships. This was seen over and over again - among self-perception variables, perceiving oneself as a friend was an important predictor of IP, and among social support variables, perceiving support from both classmates and close friends were important predictors of IP. For the Japanese adolescent, although classmate support was a predictor of IP, parent and teacher support also played important roles in influencing IP. Both cultures identified the importance of global self-worth in the development of an authentic sense of self.

Finally, this study contributes to the existing body of literature regarding IP because of its examination of the Harvey IP Scale. Although previous studies have reported adequate reliability of this instrument, this study had fairly low reliabilities using adolescent samples. This would suggest the necessity of instrument revisions if used with younger samples. In addition, this study's identification of item 9's poor correlation with the other items of the instrument also suggests the need for this item to be revised or deleted from the questionnaire.

Future Research

The findings of this study suggest a number of investigations for the further exploration and understanding of IP. Due to findings that American

adolescent mean IP scores are similar to adult mean IP scores (Eschbach, 1990; Harvey, 1981; Lawler, 1984), it is recommended that future studies be conducted with a younger sample in order to examine its prevalence, etiology and development. IP has been hypothesized to begin in early childhood, yet no studies to date have empirically tested this assumption. However, due to the lower internal reliability of the Harvey IP Scale with this study's adolescent sample, it is recommended that a revised instrument be developed that would be more developmentally appropriate for measuring IP at younger ages.

Future research with children should also continue to examine the family dynamics of the imposter's home life. Although this study's findings did not indicate parent support as a significant predictor of IP among American adolescents, this finding may have been unique to an adolescent sample. Retrospective studies with adult imposters have identified familial influences in childhood (Clance & Imes, 1978; Grays, 1992) and these should be further investigated during actual childhood. In addition, this study's examination of parent support should be expanded by a more detailed examination of mothers' and fathers' support.

Another finding of this study indicated that average achievers may experience IP at approximately the same rate as honors students (Cromwell, 1990). This lends support to the existence of IP among individuals who are nonachieving or low achieving, which requires the expansion of out current concept of IP. Future research should examine the characteristics of these various

achievement levels of IP. These studies might incorporate I.Q. or achievement tests.

Empirical investigation should also be pursued regarding intervention strategies for the amelioration of IP. Experimental designs with pre- and post-testing could be used to assess the effectiveness of a variety of interventions. Specifically, the findings of this study suggest gender-specific programming with a strong focus on interpersonal relations and academic self-confidence for girls. Future studies should compare this intervention strategy with mixed gender groups and with other treatment focuses.

Another direction for future research should be to cross-validate the IP construct in other cultures. Although this study showed that low global self-worth was related to IP in both American and Japanese adolescent imposters, future research is needed in order to identify if internal feelings of phoniness in other cultures are also related to feelings of anxiety, depression and defensiveness (Beard, 1990; Chrisman et. al., 1995; Topping & Kimmel, 1985). Rather than simply minimizing one's successes, which may be a cultural expectation (as it is in Japan), future research needs to examine the cognitive and affective attributes of the IP construct in other cultures.

Finally, cross cultural aspects of IP in this study need to be reproduced and expanded. Due to findings of this study regarding the prevalence of IP in a non-Western culture which contradict a previous study of IP in a non-Western culture (Chae et. al., 1995), it is important to continue to examine IP's prevalence in other countries and in other cultures. Studying those cultures which have low

numbers of imposters can help us to understand the environmental variables which prevent/ameliorate IP feelings. Understanding IP from a cross cultural perspective can expand our knowledge of the etiology, variation, structure and prognosis for IP.

REFERENCE

Alpert-Gillis, L., & Connell, J.P. (1998). Adolescents' possible selves and their relationship to global self-esteem. Sex Roles, 39 (1/2), 61-80.

Alvarez, A. (1995). Perceptions of fraudulence, counseling self-efficacy, and satisfaction with work. (Doctoral dissertation, University at Albany, State University of New York, 1995). Dissertation Abstracts International, 56 (5), 2851B.

American Association of University Women Educational Foundation. (1992). How Schools Shortchange Girls. Annapolis, Md.: Executive summary.

Baldwin, J.M. (1897). Social and ethical interpretations in mental development: A study in social psychology. New York: Macmillan.

Beard, J. (1990). Personality correlates of the imposter phenomenon: An exploration in gender differences in critical needs. Unpublished masters's thesis, Georgia State University, Atlanta.

Blechman, E.A.; McEnroe, M.J.; Carella, E.T.; & Audette, D.P. (1986). Childhood competence and depression. Journal of Abnormal Psychology, 95, 223-227.

Blechman, E.A.; Tinsley, B.; Carella, E.T.; & McEnroe, M.J. (1986). Childhood competence and behavior problems. Journal of Abnormal Psychology, 94, 70-77.

Bloom, M., Fischer, J., & Orme, J.G. (1995). Evaluating practice: Guidelines for the accountable professional (2nd ed.). Needham Heights: Alllyn & Bacon.

Bohrnstedt, G.W., & Felson, R.B. (1983). Explaining the relationship among children's actual and perceived performances and self-esteem: A

conparison of several causal models. Journal of Personality and Social Psychology, 45, 43-56.

Bolobnini, M., Plancherel, B., Bettschart, W., & Halfon, O. (1996). Self-esteem and mental health in early adolescence: Development and gender differences. Journal of Adolescence, 19, 233-245.

Brown, J.D. (1993). Feeling is believing. In J. Suls (Ed.), Psychological Perspectives on the Self: The Self in Social Perspective (Vol. 4, pp. 27-58). Hillsdale, N.J.: Lawrence Erlbaum Associates.

Buddin, B. (1998). The effects of parental role modeling and support for voice on level of voice among high school students. Unpublished doctoral dissertation, University of Denver.

Bussotti, C. (1990). The imposter phenomenon: Family roles and environment. Unpublished doctoral dissertation, Georgia State University, Atlanta.

Byrnes, K.D. & Lester, D. (1995). The imposter phenomenon in teachers and accountants. Psychological Reports, 77, 350.

Carlson, E. D. (2000). A case study in translation methodology using the Health-Promotions Lifestyle Profile II. Public Health Nursing, 17, (1), 61-70.

Carpenter, S. (2000). Effects of cultural tightness and collectivism on self-concept and causal attributions. Cross-Cultural Research, 34, (1), 38-56.

Chae, J.H., Piedmont, R.L., Estadt, B.K., & Wicks, R.J. (1995). Personological evaluation of Clance's imposter phenomenon scale in a Korean sample. Journal of Personality Assessment, 65 (3), 468-485.

Chodorow, N. (1978). The Reproduction of Mothering. Berkley: University of California Press.

Chrisman, S.M., Pieper, W.A., Clance, P.R., Holland, C.L., & Glickauf-Hughes, C. (1995). Validation of the Clance imposter phenomenon scale. Journal of Personality Assessment, 65 (3), 456-467.

Clance, P.R. (1985). The imposter phenomenon: Overcoming the fears that haunts your success. Atlanta: Peachtree Publishers, Ltd..

Clance, P.R., & Imes, S.A. (1978). The Imposter Phenomenon in high achieving women: Dynamics and therapeutic intervention. Psychotherapy Theory, Research, and Practice, 15, 241-247.

Clance, P.R. & O'Toole, M.A. (1987). The imposter phenomenon: An internal barrier to empowerment and achievement. Women and Therapy, 6 (3), 51-64.

Cohen, E.S. (1990). The imposter phenomenon: An interactionist perspective. (Doctoral dissertation, University of Toronto, 1990). Dissertation Abstracts International.

Cooley, C.H. (1902). Human Nature and the Social Order. New York: Charles Scribner's.

Cousins, S.D. (1989). Culture and self-perception in Japan and the United States. Journal of Personality and Social Psychology, 56(1), 124-131.

Cozzarelli, C. & Major, B. (1990). Exploring the validity of the imposter phenomenon. Journal of Social and Clinical Psychology, 9, 401-417.

Cromwell, B.H. (1990). The imposter phenomenon in the classroom: Personality and cognitive correlates. (Doctoral dissertation, Old Dominion University, 1989). Dissertation Abstracts International 50 (9), 4264B.

Dingman, D. (1987). The IP and social mobility: You can't go home again. Unpublished doctoral dissertation, Georgia State University, Atlanta, Ga..

DuBois, D.L., Felner, R.D., Brand, S., Adan, A.M., & Evans, E.G. (1992). A prospective study of life stress, social support, and adaptation in early adolescence. Child Development, 63, 542-557.

Dubow, E.F., Tisak, J., Causey, D., Hryshko, A., & Reid, G. (1991). A two-year longitudinal study of stressful life events, social support, and social problem-solving skills: Contributions to children's behavioral and academic adjustment. Child Development, 62, 583-599.

Edwards, P.W., Zeichner, A., Lawler, N. & Kowalski, R. (1984). A validation study of the Harvey Imposter Phenomenon Scale. Paper presented at meeting of the Annual Convention of the Southeastern Psychological Association, New Orleans.

Erikson, E.H. (1950). Childhood and Society. New York: W.W. Norton.

Eschbach, L.M., (1990). A study of selected psychological variables as causal factors of the imposter phenomenon among undergraduate college women. (Doctoral dissertation, Washington State University, 1990). Dissertation Abstracts International.

Ewing, K.M., Richardson, T.Q., James-Myers, L., & Russell, R.K. (1996). The relationship between racial identity attitudes, worldview, and African

American graduate students' experience of the imposter phenomenon. Journal of Black Psychology, 22 (1), 53-66.

Felson, R.B. (1993). The (somewhat) social self: How others affect self-appraisals. In J. Suls (Ed.), Psychological Perspectives on the Self: Vol. 4. The Self in Social Perspective (pp. 1-26). Hillsdale, N.J.: Lawrence Erlbaum Associates.

Flewelling, A.L. (1985). The imposter phenomenon in individuals succeeding in self-perceived atypical professions: The effects of mentoring and longevity. Unpublished master's thesis, Georgia State University, Atlanta.

Freud, S. (1933). New Introductory Lectures on Psychoanalysis (Vol. XXII). London: Hogarth Press.

Fried-Buchalter, S. (1992). Fear of success, fear of failure, and the imposter phenomenon: A factor analytic approach to convergent and discriminant validity. Journal of Personality Assessment, 58 (2), 368-379.

Gilligan, C. (1982). In a Different Voice: Psychological Theory and Women's Development. Cambridge, Ma.: Harvard University Press.

Grays, L. (1992). Personality, social, familial, and achievement correlates of the imposter phenomenon. (Doctoral dissertation, Georgia State University, 1992). Dissertation Abstracts International, 52.

Harter, S. (1983). The development of the self and the self-system. In E. M. Hetherington (Ed.), Handbook of Child Psychology (4th ed., Vol. 4, pp. 285-385). New York: Wiley.

Harter, S. (1985). Manual for the Social Support Scale for Children and Adolescents. Denver: University of Denver.

Harter, S. (1986). Processes underlying the construct, maintenance and enhancement of the self-concept in children. In J. Suls & A. Greenwald (Eds.), Psychological Perspectives on the Self (Vol. 3). Hillsdale, N.J.: Lawrence Erlbaum.

Harter, S. (1988a). Issues in the assessment of the self-concept of children and adolescents. In A. LaGreca (Ed.), Childhood Assessment: Through the Eyes of a Child (pp. 292-325). New York: Allyn and Bacon.

Harter, S. (1988b). Manual for the Self-perception Profile for Adolescents. Denver: University of Denver.

Harter, S. (1989). Causes, correlates, and the functional role of global self-worth: A life-span perspective. In J. Kolligian & R. Sternberg (Eds.), Perceptions of Competence and Incompetence across the Lifespan (pp. 67-100). New Haven, Ct.: Yale University Press.

Harter, S. (1990a). Causes, correlates, and the functional role of global self-worth: A life-span perspective. In R.J. Sternberg & J. Kolligian, Jr. (Eds.), Competence Considered (pp. 67-97). New Haven, Ct.: Yale University Press.

Harter, S. (1990b). Processes underlying adolescent self-concept formation. In R. Montemayor, G.R. Adams, & T.P. Gullotta (Eds.), From Childhood to Adolescence: A Transitional Period? Newbury Park: Sage.

Harter, S. (1997). Psychological perspectives on the self. In J. Suls & A. Greenwald (Eds.), Processes underlying the Construction, Maintenance, and Enhancement of the Self-concept in Children (Vol. 3, pp. 137-181). Hillsdale, N.J.: Erlbaum.

Harter, S. (1999). The Construction of the Self. New York: Guilford Press.

Harter, S., Marold, D.B., Whitesell, N.R. & Cobbs, G. (1996). A model of the effects of perceived parent and peer support on adolescent false self behavior. Child Development, 67, 360-374.

Harter, S. & Stocker, C. (1996). The perceived directionality of the link between approval and self-worth: The liabilities of a looking glass self-orientation among young adolescents. Journal of Research on Adolescence, 6(3), 285-308.

Harter, S., Waters, P.L., Pettitt, L.M., Whitesell, N., Kofkin, J. & Jordan, J. (1997). Autonomy and connectedness as dimensions of relationship styles in men and women. Journal of Social and Personal Relationships, 14(2), 147-164.

Harter, S., Waters, P. L., Whitesell, N. R., & Kastelic, D. (1998). Level of voice among female and male high school students:Relational context, support and gender orientation. Developmental Psychology, 34(5), 1-10.

Harvey, J.C. (1981). The imposter phenomenon and achievement: A failure to internalize (Doctoral dissertation, Temple University, 1981). Dissertation Abstracts International, 42, 4969B.

Harvey, J. C. & Katz, C. (1985). If I'm so Successful, Why do I Feel Like a Fake? New York: Random House, Inc.

Hayes, K.M. & Davis, S.F. (1993). Interpersonal flexibility, type A individuals, and the imposter phenomenon. Bulletin of the Psychonomic Society 31 (4), 323-325.

Hirschfield, M.M. (1982). The imposter phenomenon in successful career women. (Doctoral dissertation, Fordham University, 1982). Dissertation Abstracts International, 43, 1722A.

Holloway, S. D. (1988). Concepts of ability and effort in Japan and the United States. Review of Educational Research, 58, 327-345.

Holmes, S.W. (1986). The imposter phenomenon: A validity study of Clance's IP scale. Unpublished masters thesis, Georgia State University, Atlanta.

Holmes, S.W., Kertay, L., Adamson, L.B., & Clance P.R. (1993). Measuring the imposter phenomenon: A comparison of Clance's IP Scale and Harvey's IP Scale. Journal of Personality Assessment, 60, 48-59.

Hudson, C.N. (1988). A model for the precursers of academic self-esteem. Paper presented at meeting of the Western Psychological Association, Burlingame, Ca.

Hymes, R.W., & Akiyama, M.M. (1991). Depression and self-enhancment among Japanese and American students. Journal of Social Psychology, 131(3), 321-334.

Imes, S. (1983). The imposter phenomenon as a function of attribution patterns and internalized femininity/masculinity in high achieving women and men. Unpublished doctoral dissertation, Georgia State University. University Microfilms no. 8013056.

James, W. (1892). Psychology: The Briefer Course. New York: Henry Holt.

Jopling, D.A. (1997). A "Self of selves"?. In U. Neisser & D.Jopling (Eds.), The Conceptual Self in Context (pp. 249-267). Cambridge: Cambridge University Press.

Jordan, J.V., Kaplan, A.G., Miller, J.B., Stiver, I.P., & Surrey, J.L. (1991). Women's Growth in Connection. New York: Guilford Press.

Kaplan, A.G., & Klein, R. (1991). The relational self in late adolescent women. In Jordan, J.V., Kaplan, A.G., Miller, J.B., Stiver, I.P., Surrey, J.L. (Ed.), Women's Growth in Connection (pp. 122-131). N.Y.: Guilford Press.

Kashima, Y., & Triandis, H. C. (1986). The self-serving bias in attributions as a coping strategy: a cross cultural study. Journal of Cross-Cultural Psychology, 17, 83-97.

Kertay, L. (1991). Individual and gender differences in the imposter phenomenon and perceptions of competence. Unpublished master's thesis, Georgia State University, Atlanta.

King, J.E. & Cooley, E.L. (1995). Achievement orientation and the imposter phenomenon among college students. Contemporary Educational Psychology 20, 304-312.

Kohlberg, L. (1981). The Philosophy of Moral Development. San Francisco: Harper and Row.

Kolligian, J. (1990). Perceived fraudulence as a dimension of perceived incompertence. In R.J. Sternberg & J. Kolligian (Eds.), Competence Considered (pp. 261-285). New Haven: Yale University Press.

Kolligian, J. & Sternberg, R.J. (1991). Perceived fraudulence in young adults: Is there an "imposter syndrome?" Journal of Personality Assessment, 56, 308-325.

Langford, J. (1990). The need to look smart: The imposter phenomenon and motivation for learning. (Doctoral dissertation, Georgia State University, 1990). Dissertation Abstract International 51.

Lathrop, R.G. (1987). The Multidimensional Test of Self-concept: Further Findings. Paper presented at meeting of the Western Psychological Associaltion, Long Beach, Ca..

Lathrop, R.G. (1988). The MTS: Multidimensional Test of Self-concept. Microfiche. Princeton, N.J.: Educational Testing Service.

Lawler, N.K. (1984). The imposter phenomenon in high achieving persons and Jungian personality variables. (Doctoral dissertation, Georgia State University, 1984). Dissertation Abstract International 45, 86.

Leary, M.R. (1993). The interplay of private self-processes and interpersonal factors in self-presentation. Psychological Perspectives on the Self: The Self in Social Perspective (Vol. 4, pp. 127-155). Hillsdale, N.J.: Lawrence Erlbaum Associates.

Maracek, J., & Mettee, D.R. (1972). Avoidance of continued success as a function of self-esteem, level of esteem certainty, and responsibility for success. Journal of Personality and Social Psychology, 22, 98-107.

Marin, G., & Marin, B. (1991). Research with Hispanic populations. Newbury Park, Ca.: Sage Publications.

Markus, H.R. & Kityama, S. (1991). Culture and the self: Implications for cognition, emotion and motivation. Psychological Review, 98, 224-253.

Markus, H.R., Mullally, P.R., Kitayama, S. (1997). Selfways: Diversity in modes of cultural participation. In U. Neisser and D.A. Jopling (Ed.), The Conceptual Self in Context (pp. 13-61). Cambridge: Cambridge University Press.

Marsh, H.W. (1986). Global self-esteem: Its relation to specific facets of self-concept and their importance. Journal of Personality and Social Psychology, 51(6), 1224-1236.

Marsh, H.W. (1993). Academic self-concept. In J. Suls (Ed.), Psychological Perspectives on the Self: Vol. 4. The Self in Social Perspective (pp. 59-98). Hillsdale, N.J.: Lawrence Erlbaum Associates.

McCranie, E.W. & Bass, J.D. (1984). Childhood family antecedents of dependency and self-criticism: Implications for depression. Journal of Abnormal Psychology, 93, 3-8.

McIntyre, T. M. (1990). A study of the relationship between women's interpersonal behavior, imposter feelings, sex role attitudes, and their professional status. Unpublished doctoral dissertation, Georgia State University, Atlanta, Ga.

Mead, G.H. (1934). Mind, Self, and Society from the Standpoint of a Social Behaviorist. Chicago: University of Chicago Press.

Miller, J.B. (1986). Toward a New Psychology for Women. Boston: Beacon Press.

Miller, J.B., & Stiver, I.P. (1997). The Healing Connection. Boston: Beacon Press.

Mizuno, S. (1999). Psychosocial development and moral development: An exploratory comparison of adolescents in Japan and America. Psychological Reports, 84, 51-62.

Nicholson, N. S. (1995). Translation and interpretation. Annual Review of Applied Linguistics, 15, 42-62.

Nunnally, J.C. (1978). Psychometric Theory (2nd ed.). New York: McGraw-Hill.

Phillips, D.A. (1984). The illusion of incompetence among academically competent children. Child Development, 55, 2000-2016.

Phillips, D.A. (1987). Socialization of perceived academic competence among highly competent children. Child Development, 58, 1308-1320.

Phillips, D.A. & Zimmerman, M. (1990). The developmental course of perceived competence and incompetence among competent children. In R. Sternberg & J. Kolligian (Eds.), Competence considered (pp.41-66). New Haven: Yale University Press.

Prince, T.J. (1989). The imposter phenomenon revisited: A validity study of Clance's IP scale. Unpublished masters thesis, Georgia State University, Atlanta.

Robinson, N. S. (1995). Evaluating the nature of perceived support and its relation to perceived self-worth in adolescents. Journal of Research on Adolescence, 5 (2), 253-280.

Rogers, C.R. (1951). Client-centered therapy. Boston: Houghton Mifflin.

Rosenberg, M. (1979). Conceiving the Self. New York: Basic Books.

Savin-Williams, R. C. & Berndt, T. J. (1990). Friend and peer relations. In S. S. Feldman & G. Elliot (Eds.), At the threshold: The developing adolescent (pp. 277-307). Cambridge, Ma.: Harvard University Press.

Sheder, R.A., Goodnow, J., Hatano, G., LeVine, R.A., Markus, H., Miller, P. (1998). The cultural psychology of development: One mind, many metalities. In W. Damon & R.M. Lerner (Eds.), Handbook of child psychology: Theoretical models of human development (5th Ed., Vol. 1). New York: John Wiley & Sons, Inc.

SPSS (Version 9.0). (1999). [Computer software]. Chicago: SPSS Inc.

Stahl, J.M., Turner, H.M., Wheeler, A.E. & Elbert, P.B. (1980). The imposter phenomenon in high school and college science majors. Paper presented at the meeting of the American Psychological Association, Montreal.

Surrey, J.L. (1991). Relationship and Empowerment. In Jordan, J.V., Kaplan, A.G., Miller, J.B., Stiver, I.P, & Surrey, J.L. (Ed.), Women's Growth in Connection (pp. 162-180). New York: Guilford Press.

Topping, M.E.H. (1983). The imposter phenomenon: A study of its construct and incidence in university faculty members (Doctoral dissertation, University of South Florida, 1983). Dissertation Abstracts International, 41, 4248A-4249A.

Topping, M.E.H., & Kimmel, E.B. (1985). The imposter phenomenon: Feeling phony. Academic Psychology Bulletin, 7, 213-226.

Vandervoort, D. (1999). Quality of social support in mental and physical health [18 pages]. Current Psychology [On-Line serial], 18(2). Available Infotrac

White, M. (1993). The Material Child. New York: The Free Press.

Williams, J. E. (1991). Modeling test anxiety, self concept and high school students' academic achievement. Journal of Research and Development in Education, 25 (1), 51-57.

Appendix A

OKLAHOMA STATE UNIVERSITY

OSU

College of Human Environmental Sciences

Department of Family Relations and Child Development
243 Human Environmental Sciences
Stillwater, Oklahoma 74078-6122
405-744-5057; Fax 405-744-2800

Dear Parent,

Thank you for taking the time to review the following information. I am a graduate student at Oklahoma State University and am conducting research on high school students' comfort level and satisfaction with their achievements. Your adolescent child is enrolled in a class which has been selected to participate in this research but it is important that you agree to have your child participate.

The research consists of having your child complete a Personal Data Questionnaire (gender, grade level, GPA, etc.) and four brief questionnaires. These questionnaires examine self-concept, social support, self-perceptions, and feelings about achievements. They should take no longer than 20-40 minutes to complete and will be done in the classroom.

Please read the attached Informed Consent and sign at the bottom if you agree to allow your child to participate. If you have any questions or concerns, please do not hesitate to contact Sharon Bacher from O.S.U.'s Institutional Review Board, 203 Whitehurst, Stillwater, Ok. (405) 744-5700 or either researcher listed at the bottom of the page. Again, thank you for taking the time to review this information.

Sincerely,

Tonia Caselman

Tonia Caselman
Graduate Student, Family Relations & Child Development
Oklahoma State University
(918) 496-2397

Patricia A. Self, Ph.D.
Professor, Family Relations & Child Development
Oklahoma State University
(405) 744-8348

INFORMED CONSENT

I understand that I am agreeing to participate in a research study that is being conducted through Oklahoma State University and University of Oklahoma that seeks to understand how students differ in their experience of comfort and satisfaction in their achievements. I understand that I am under no obligation to participate and can terminate my participation at any time without any penalty.

I realize that my participation will take 20-40 minutes and will involve the completion of a Personal Data Questionnaire and four self-report instruments - the IP Scale, the Multidimensional Test of Self-Concept, a Self-Perception Scale and a Social Support Scale. I understand that these instruments are non-threatening and will pose no risk to my physical or psychological well-being. If I have any questions or concerns regarding this research I understand that I can contact Sharon Bacher at the Oklahoma State University Institutional Review Board, 203 Whitehurst, Stillwater, Ok. (405) 744-5700.

I realize that I cannot be identified as having participated in this study and that the results of this study will be in group form and will be used for educational and research purposes only.

_____

Signature of participant

_____

Signature of parent/guardian if under 18

Appendix B

Code number _____

DEMOGRAPHIC DATA FORM

For each of the following items please circle the appropriate choice.

1. Grade level: 11th 12th

2. Sex: Male Female

3. Circle your estimated current grade point average: 3.5 or higher
   3.0 - 3.49
   2.0 - 2.99
   1.0 - 1.99
   below .99

4. Race: African American
   Asian
   Caucasian
   Hispanic
   Native American
   Other

コードナンバー＿＿＿＿＿＿＿＿

統計データ用紙

次にあてはまる項目にマルをいれてください。

1　学年　　高校2年生　　高校3年生

2　性別　　男性　　女性

Appendix C

INSTRUCTIONS

Please answer the following questions as honestly as you can. Complete anonymity and confidentiality of your responses is guaranteed. We are most interested in your first thoughts and impressions, so answer as quickly as possible.

For each item, place an "X" or check mark on the dash that best indicates how true of you the statement is. Make sure that the mark is clearly on one of the dashes, and not in between.

1. In general, people tend to believe I am more competent than I really am.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

2. I am certain my present level of achievement results from true ability.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

3. Sometimes I am afraid I will be discovered for who I really am.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

4. I find it easy to accept compliments about my intelligence.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

5. I feel I deserve whatever honors, recognition, or praise I receive.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

6. At times, I have felt I am in my present position or academic program through some kind of mistake.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

7. I feel confident that I will succeed in the future.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

8. I tend to feel like a phony.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

9. My personality or charm often makes a strong impression on people in authority.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

10. I consider my accomplishments adequate for this stage in my life.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

11. In discussions, if I disagree with my professor or boss, I speak out.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

12. I often achieve success on a project or test when I have anticipated I would fail.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

13. I often feel I am concealing secrets about myself from others.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

14. My public and private self are the same person.
NOT AT ALL TRUE _____ _____ _____ _____ _____ _____ _____ VERY TRUE

解　説

次の質問にできるだけ正直に答えてください。完全に匿名であることとあなたの返答を機密事項として取り扱うことを保証します。私たちはあなたの最初の考えもしくは、第一印象を重要視しますので、できるだけ速く答えてください。

各項目について、あなたについてどれだけ真実であるかバツ印もしくはチェック印を下線の上に記入してください。記入の際、その印がとなりあう下線の間ではなく、各下線上にきちんと記されていることを確認してください。

1　通常、周囲の人は私のことを実際の私より有能だと思っている傾向がある。

全く真実ではない ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ 真実その通りである

2　私は今の自分の達成レベルは自分の真の実力によるものであると確信している。

全く真実ではない ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ 真実その通りである

3　私は時々いつかだれかに真の自分を見つけ出されてしまうのではないかとおそれている。

全く真実ではない ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ 真実その通りである

4　私は自分で、自分の知性に対するほめ言葉を受け入れやすいことに気がついている。

全く真実ではない ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ ＿＿＿ 真実その通りである

5　私は、私に与えられるどんな称賛、認証、評価など私にとって当然のものと思っている。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

6　ときどき、私は、何かのまちがいで、自分の今の位置状態もしくは今の学習課程にいると感じたことがある。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

7　私は将来うまく行くだろうと言う希望がある。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

8　私は、まるで自分がニセモノであるように感じがちである。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

9　私の持っている個性や魅力はよく先生方の注目を引いている。。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

10　私の年齢とこれまでの学習とを考えると私が今までやってきた事はそれでいいと思う。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

11　話し合い中に、もし先生と自分の意見が違っていたら、私は自分の考えをはっきり言う。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

12　私は、計画や試験に多分失敗だろうと予想した時に、よく成功している。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

13　私は、ある面の自分をよく人から隠していると思う。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

14　私の外側の自分と内側の自分は、同じ人間である。

全く真実ではない ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ＿＿ 真実その通りである

Appendix D

Code No. _____

What I am Like

Sample Sentence

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
a.)	☐	☐	Some teenagers like to go to movies in their spare time.	**BUT**	Other teenagers would rather go to sports events.	☐	☐
1.	☐	☐	Some teenagers feel that they are just as smart as others their age.	**BUT**	Other teenagers aren't so sure and wonder if they are as smart.	☐	☐
2.	☐	☐	Some teenagers do very well at all kinds of sports.	**BUT**	Other teenagers don't feel that they are very good when it comes to sports.	☐	☐
3.	☐	☐	Some teenagers are *not* happy with the way they look.	**BUT**	Other teenagers *are* happy with the way they look.	☐	☐
4.	☐	☐	Some teenagers usually do the right thing.	**BUT**	Other teenagers often don't do what they know is right.	☐	☐
5.	☐	☐	Some teenagers are able to make really close friends.	**BUT**	Other teenagers find it hard to make really close friends.	☐	☐
6.	☐	☐	Some teenagers are often disappointed with themselves.	**BUT**	Other teenagers are pretty pleased with themselves.	☐	☐
7.	☐	☐	Some teenagers are pretty slow in finishing their school work.	**BUT**	Other teenager can do their school work more quickly.	☐	☐
8.	☐	☐	Some teenagers think they could do well at just about any new athletic activity.	**BUT**	Other teenagers are afraid they might not do well at a new athletic activity.	☐	☐
9.	☐	☐	Some teenagers wish their body was different.	**BUT**	Other teenagers like their body the way it is.	☐	☐
10.	☐	☐	Some teenagers often get in trouble for the things they do.	**BUT**	Other teenagers usually don't do things that get them in trouble.	☐	☐
11.	☐	☐	Some teenagers do have a close friend they can share secrets with.	**BUT**	Other teenagers do not have a really close friend they can share secrets with.	☐	☐
12.	☐	☐	Some teenagers don't like the way they are leading their life.	**BUT**	Other teenagers do like the way they are leading their life.	☐	☐
13.	☐	☐	Some teenagers do very well at their classwork.	**BUT**	Other teenagers don't do very well at their classwork.	☐	☐

14.	☐ ☐	Some teenagers feel that they are better than others their age at sports.	**BUT**	Other teenagers don't feel they can play as well.	☐ ☐
15.	☐ ☐	Some teenagers wish their physical appearance was different.	**BUT**	Other teenagers like their physical appearance the way it is.	☐ ☐
16.	☐ ☐	Some teenagers feel really good about the way they act.	**BUT**	Other teenagers *don't* feel that good about the way they often act.	☐ ☐
17.	☐ ☐	Some teenagers wish they had a really close friend to share things with.	**BUT**	Other teenagers *do* have a close friend to share things with.	☐ ☐
18.	☐ ☐	Some teenagers are happy with themselves most of the time.	**BUT**	Other teenagers are often not happy with themselves.	☐ ☐
19.	☐ ☐	Some teenagers have trouble figuring out the answers in school.	**BUT**	Other teenagers almost always can figure out the answers.	☐ ☐
20.	☐ ☐	Some teenagers don't do well at new outdoor games.	**BUT**	Other teenagers are good at new games right away.	☐ ☐
21.	☐ ☐	Some teenagers think that they are good looking.	**BUT**	Other teenagers think that they are not very good looking.	☐ ☐
22.	☐ ☐	Some teenagers do things they know they shouldn't do.	**BUT**	Other teenagers hardly ever do things they know they shouldn't do.	☐ ☐
23.	☐ ☐	Some teenager find it hard to make friends they can really trust.	**BUT**	Other teenagers *are* able to make close friends they can really trust.	☐ ☐
24.	☐ ☐	Some teenagers like the kind of person they are.	**BUT**	Other teenagers often wish they were someone else.	☐ ☐
25.	☐ ☐	Some teenagers feel that they are pretty intelligent.	**BUT**	Other teenagers question whether they are intelligent.	☐ ☐
26.	☐ ☐	Some teenagers do not feel that they are very athletic.	**BUT**	Other teenagers feel that they *are* very athletic.	☐ ☐
27.	☐ ☐	Some teenagers really like their looks.	**BUT**	Other teenagers wish they looked different.	☐ ☐
28.	☐ ☐	Some teenagers usually act the way they know they are supposed to.	**BUT**	Other teenagers often don't act the way they are supposed to.	☐ ☐
29.	☐ ☐	Some teenagers *don't* have a friend that is close enough to share really personal thoughts with.	**BUT**	Other teenagers do have a close friend that they can share personal thoughts and feelings with.	☐ ☐
30.	☐ ☐	Some teenagers are very happy being the way they are.	**BUT**	Other teenagers wish they were different.	☐ ☐

私はこんな人間である

例題

	私にとって正に真実である。	私にとってだいたい真実である。			私にとってだいたい真実である。	私にとって正に真実である
			ある中高生達は余暇に映画にいくのが好きである。	しかし、	他の中高生達はスポーツイベントにいくことのほうが好きである。	
1	☐	☐	ある中高生達は他の同年代の人達と同様に自分が賢いと思っている。	しかし、	他の中高生達は他の同年代の人達と同様に自分が賢いかどうか疑問に思っている。	☐ ☐
2	☐	☐	ある中高生達は全てのスポーツがとてもよくできる。	しかし、	他の中高生達はスポーツはよくできるとは思っていない。	☐ ☐
3	☐	☐	ある中高生達は自分達の外観に満足していない。	しかし、	他の中高生達は自分達の外観に満足している。	☐ ☐
4	☐	☐	ある中高生達は道徳的にたいてい正しいことをする。	しかし、	他の中高生達は正しいと知っていてもそれを殆ど実行しない。	☐ ☐
5	☐	☐	ある中高生達は本当に親しい友人をつくることができる。	しかし、	他の中高生達は本当に親しい友人をつくるのは難しいと感じている。	☐ ☐

私にとって 全く 真実である	私にとって だいたい 真実である				私にとって だいたい 真実である	私にとって 全く 真実である
6 □	□	ある中高生達はたいてい自分自身に失望している。	しかし、	他の中高生達はたいてい自分自身に満足している。	□	□
7 □	□	ある中高生達は学校の課題を終わらせるのに時間がかかる。	しかし、	他の中高生達は学校の課題をさっさと終わらせることができる。	□	□
8 □	□	ある中高生達は大体どんな新しいスポーツ活動もうまくできると思っている。	しかし、	他の中高生達は新しいスポーツ活動はあまりうまくできないかもしれないと恐れている。	□	□
9 □	□	ある中高生達は自分達の身体が違っていたらと願っている。	しかし、	他の中高生達は今のままの自分達の身体が好きである。	□	□
10 □	□	ある中高生達は自分のすることで屢々問題を起こす。	しかし、	他の中高生達は問題を起こすようなことは大抵しない。	□	□
11 □	□	ある中高生達は秘密を共有できる親しい友人をもっている。	しかし、	他の中高生達は秘密を共有できる本当に親しい友人をもっていない。	□	□
12 □	□	ある中高生達は自分達が過ごしている生活が好きではない。	しかし、	他の中高生達は自分達が過ごしている生活が好きである。	□	□
13 □	□	ある中高生達は自分達の教室での学習活動がたいへんよくできる。	しかし、	他の中高生達は自分達の教室での学習活動があまりよくできない。	□	□

	私にとって正に真実である。	私にとってだいたい真実である。			私にとってだいたい真実である。	私にとって正に真実である。
14	☐	☐	ある中高生達はスポーツにおいて他の同年代の人達よりできると思っている。	しかし、他の中高生達はスポーツにおいて他の同年代の人達と同様にできると思っていない。	☐	☐
15	☐	☐	ある中高生達は自分達の身体的外観が（今の外観と）違っていたらと願っている。	しかし、他の中高生達は自分達の今のままの身体的外観が好きである。	☐	☐
16	☐	☐	ある中高生達は自分達の行動についてとてもよいと思っている。	しかし、他の中高生達は自分達の殆どの行動についてあまりよく思っていない。	☐	☐
17	☐	☐	ある中高生達は色々な物事を共有できる本当に親しい友人をもちたいと願っている。	しかし、他の中高生達は色々な物事を共有できる親しい友人をもっている。	☐	☐
18	☐	☐	ある中高生達は殆どの時において自分自身に満足している。	しかし、他の中高生達は大抵自分自身に満足していない。	☐	☐
19	☐	☐	ある中高生達は学校での課題の解答をするのが難しい。	しかし、他の中高生達は殆どいつも課題の解答をすることができる。	☐	☐
20	☐	☐	ある中高生達は新しい屋外ゲームをすることはうまくない。	しかし、他の中高生達は新しいゲームをするとすぐうまくなる。	☐	☐

	私にとって全く真実である	私にとってだいたい真実である			私にとってだいたい真実である	私にとって全く真実である
21	□	□	ある中高生達は自分の顔立ちがいいと思っている。	しかし、他の中高生達は自分の顔立ちはあまりよくないと思っている。	□	□
22	□	□	ある中高生達は自分がするべきでないと知っていてもそのことをする。	しかし、他の中高生達は自分がすべきでないと知っていることはめったにしない。	□	□
23	□	□	ある中高生達は本当に信頼できる友達をつくることは難しいと思っている。	しかし、他の中高生達は本当に信頼できる親しい友達をつくることができる。	□	□
24	□	□	ある中高生達は自分がそのまま好きである。	しかし、他の中高生達は自分が違った人であったらと望んでいる。	□	□
25	□	□	ある中高生達は自分には知的能力があると思っている。	しかし、他の中高生達は自分に知的能力があるかどうか疑っている。	□	□
26	□	□	ある中高生達は自分の運動神経がとてもいいとは思っていない。	しかし、他の中高生達は自分達は運動神経がとてもよいと思っている。	□	□
27	□	□	ある中高生達は自分の外観が本当に好きである。	しかし、他の中高生達は自分の外観が違っていたらと望んでいる。	□	□
28	□	□	ある中高生達は普通期待されているように振る舞う。	しかし、他の中高生達は普通期待されているように振る舞わない。	□	□

	私にとって正に真実である	私にとってだいたい真実である			私にとってだいたい真実である	私にとって正に真実である
29	□	□	ある中高生達は本当の個人的な考えを分かちあうほどの親しい友達をもっていない。	しかし、他の中高生達は本当の個人的な考えや気持ちを分かちあえる親しい友達をもっている。	□	□
30	□	□	ある中高生達は今の自分のあるがままの状態でいることがとても幸せである。	しかし、他の中高生達は自分達が違っていたらと望んでいる。	□	□

Appendix E

Please rate yourself as you feel that you really are. Take your time and respond as accurately and honestly as possible. Place a check mark in the space that corresponds most closely to how you generally feel.

depressed	___ : ___ : ___ : ___ : ___ : ___ : ___	cheerful
alert	___ : ___ : ___ : ___ : ___ : ___ : ___	unalert
undependable	___ : ___ : ___ : ___ : ___ : ___ : ___	dependable
close	___ : ___ : ___ : ___ : ___ : ___ : ___	distant
inexpert	___ : ___ : ___ : ___ : ___ : ___ : ___	expert
reliable	___ : ___ : ___ : ___ : ___ : ___ : ___	unreliable
incompatible	___ : ___ : ___ : ___ : ___ : ___ : ___	compatible
informed	___ : ___ : ___ : ___ : ___ : ___ : ___	uninformed
untruthful	___ : ___ : ___ : ___ : ___ : ___ : ___	truthful
enthusiastic	___ : ___ : ___ : ___ : ___ : ___ : ___	indifferent
insightless	___ : ___ : ___ : ___ : ___ : ___ : ___	insightful
responsible	___ : ___ : ___ : ___ : ___ : ___ : ___	irresponsible
unfriendly	___ : ___ : ___ : ___ : ___ : ___ : ___	friendly
intelligent	___ : ___ : ___ : ___ : ___ : ___ : ___	dumb
untrustworthy	___ : ___ : ___ : ___ : ___ : ___ : ___	trustworthy
sociable	___ : ___ : ___ : ___ : ___ : ___ : ___	unsociable
unskillful	___ : ___ : ___ : ___ : ___ : ___ : ___	skillful
faithful	___ : ___ : ___ : ___ : ___ : ___ : ___	disloyal

これが本当の自分であると思う通りに自分自身を評価してください。時間を十分にとって、できるだけ正確にそして正直に答えてください。あなたが通常どのように感じているかに一番近い場所にチェックマークを入れてください。

愛嬌である	____ : ____ : ____ : ____ : ____ : ____ : ____	楽しい
注意深い	____ : ____ : ____ : ____ : ____ : ____ : ____	注意深くない
あてにならない	____ : ____ : ____ : ____ : ____ : ____ : ____	あてになる
親しみやすい	____ : ____ : ____ : ____ : ____ : ____ : ____	よそよそしい
専門的知識がない	____ : ____ : ____ : ____ : ____ : ____ : ____	専門的知識がある
頼りになる	____ : ____ : ____ : ____ : ____ : ____ : ____	頼りにならない
気が合わない	____ : ____ : ____ : ____ : ____ : ____ : ____	気があう
見聞がひろい	____ : ____ : ____ : ____ : ____ : ____ : ____	見聞がせまい
正直でない	____ : ____ : ____ : ____ : ____ : ____ : ____	正直である
夢中になる	____ : ____ : ____ : ____ : ____ : ____ : ____	どうでもいい
洞察力がない	____ : ____ : ____ : ____ : ____ : ____ : ____	洞察力がある
責任をもつ	____ : ____ : ____ : ____ : ____ : ____ : ____	責任をもたない
友好的でない	____ : ____ : ____ : ____ : ____ : ____ : ____	友好的である
知能がたかい	____ : ____ : ____ : ____ : ____ : ____ : ____	おろかである
信頼できない	____ : ____ : ____ : ____ : ____ : ____ : ____	信頼できる
社交的である	____ : ____ : ____ : ____ : ____ : ____ : ____	社交的でない
不器用である	____ : ____ : ____ : ____ : ____ : ____ : ____	器用である
忠実である	____ : ____ : ____ : ____ : ____ : ____ : ____	忠実でない

Appendix F

PEOPLE IN MY LIFE

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
			Sample Item				
	☐	☐	Some kids like to do fun things with a lot of other people	BUT	Other kids like to do fun things with just a few people.	☐	☐
1.	☐	☐	Some kids have parents who *don't* really *understand* them	BUT	Other kids have parents who really *do* understand them.	☐	☐
2.	☐	☐	Some kids have classmates who like them the way they are	BUT	Other kids have classmates who wish they were *different.*	☐	☐
3.	☐	☐	Some kids have a teacher who *helps* them if they are *upset* and have a problem	BUT	Other kids *don't* have a teacher who helps them if they are upset and have a problem.	☐	☐
4.	☐	☐	Some kids have a close friend who they can tell *problems* to	BUT	Other kids *don't* have a close friend who they can tell problems to.	☐	☐
5.	☐	☐	Some kids have parents who *don't* seem to want to hear about their children's problems	BUT	Other kids have parents who *do* want to *listen* to their children's problems.	☐	☐
6.	☐	☐	Some kids have classmates that they can become friends with	BUT	Other kids *don't* have classmates that they can become friends with.	☐	☐
7.	☐	☐	Some kids *don't* have a teacher who *helps* them *to do* their very best	BUT	Other kids *do* have a teacher who *helps* them to do their very best.	☐	☐
8.	☐	☐	Some kids have a close friend who really understands them	BUT	Other kids *don't* have a close friend who understands them.	☐	☐
9.	☐	☐	Some kids have parents who *care* about their feelings	BUT	Other kids have parents who *don't* seem to care very much about their children's feelings.	☐	☐
10.	☐	☐	Some kids have classmates who sometimes make fun of them	BUT	Other kids *don't* have classmates who make fun of them.	☐	☐
11.	☐	☐	Some kids *do* have a teacher who *cares* about them	BUT	Other kids *don't* have a teacher who cares about them.	☐	☐

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
12.	☐	☐	Some kids have a close friend who they can talk to about things that bother them	BUT	Other kids *don't* have a close friend who they can talk to about things that bother them.	☐	☐
13.	☐	☐	Some kids have parents who treat their children like a *person* who really matters	BUT	Other kids have parents who *don't* usually treat their children like a person who matters.	☐	☐
14.	☐	☐	Some kids have classmates who pay attention to what they say	BUT	Other kids have classmates who usually don't pay attention to what they say.	☐	☐
15.	☐	☐	Some kids *don't* have a teacher who is *fair* to them	BUT	Other kids *do* have a teacher who is fair to them.	☐	☐
16.	☐	☐	Some kids *don't* have a close friend who they like to spend time with	BUT	Other kids *do* have a close friend who they like to spend time with.	☐	☐
17.	☐	☐	Some kids have parents who like them the *way they are*	BUT	Other kids have parents who wish their children were *different*.	☐	☐
18.	☐	☐	Some kids *don't* get asked to play in games with classmates very often	BUT	Other kids *often* get asked to play in games by their classmates.	☐	☐
19.	☐	☐	Some kids *don't* have a teacher who cares if they feel bad	BUT	Other kids *do* have a teacher who cares if they feel bad.	☐	☐
20.	☐	☐	Some kids *don't* have a close friend who really *listens* to what they say	BUT	Other kids *do* have a close friend who really listens to what they say.	☐	☐
21.	☐	☐	Some kids have parents who *don't* act like what their children do is *important*	BUT	Other kids have parents who *do* act like what their children do is important.	☐	☐
22.	☐	☐	Some kids often spend recess being *alone*	BUT	Other kids spend recess playing with their classmates.	☐	☐
23.	☐	☐	Some kids have a teacher who treats them like a *person*	BUT	Other kids *don't* have a teacher who treats them like a person.	☐	☐
24.	☐	☐	Some kids *don't* have a close friend who cares about their feelings	BUT	Other kids *do* have a close friend who cares about their feelings.	☐	☐

私の人生における人々

例題

私にとって正に真実である	私にとってだいたい真実である		私にとってだいたい真実である	私にとって正に真実である
		ある中高生達は大勢の人達と楽しいことをすることが好きである。	しかし、他の中高生達はほんの少数の人達と楽しい事をすることが好きである。	
☐	☐	1 ある中高生達は自分をあまりよく理解していない両親をもっている。	しかし、他の中高生達は自分達をよく理解している両親をもっている。	☐	☐
☐	☐	2 ある中高生達はあるがままの自分を好んでいるクラスメートをもっている。	しかし、他の中高生達は自分達が違っていたらと望むクラスメートをもっている。	☐	☐
☐	☐	3 ある中高生達はもし自分達が困ったり問題をかかえたりしたら助けてくれる先生をもっている。	しかし、他の中高生達はもし自分達が困ったり問題をかかえたりしても助けてくれる先生をもっていない。	☐	☐
☐	☐	4 ある中高生達は悩みごとを話せる親しい友達をもっていない。	しかし、他の中高生達は悩みごとを話せる親しい友達をもっている。	☐	☐

	私にとって 全く 真実である	私にとって だいたい 真実である			私にとって だいたい 真実である	私にとって 全く 真実である
5	□	□	ある中高生達は自分達の悩み事を聞きたがらないように思える両親をもっている。	しかし、他の中高生達は自分達の悩みをよろこんで聞いてくれる両親をもっている。	□	□
6	□	□	ある中高生達は自分の友達となりえるクラスメートをもっている。	しかし、他の中高生達は自分の友達となりえるクラスメートをもっていない。	□	□
7	□	□	ある中高生達は自分達が最善を尽くせるよう助けてくれる先生をもっていない。	しかし、他の中高生達は自分達が最善を尽くせるよう助けてくれる先生をもっている。	□	□
8	□	□	ある中高生達は自分達の事を本当に理解してくれる親しい友達をもっている。	しかし、他の中高生達は自分達の事を本当に理解してくれる親しい友達をもっていない。	□	□
9	□	□	ある中高生達は自分の気持ちを大切に思ってくれる両親をもっている。	しかし、他の中高生達は自分達の気持ちをあまり大切に思ってくれていないような両親をもっている。	□	□
10	□	□	ある中高生達は時々クラスメートにいじめられる。	しかし、他の中高生達はクラスメートからいじめられない。	□	□
11	□	□	ある中高生達は自分達のことを大切に思ってくれる先生をもっている。	しかし、他の中高生達は自分達のことを大切に思ってくれる先生をもっていない。	□	□

	私にとって正に真実である	私にとってだいたい真実である			私にとってだいたい真実である	私にとって正に真実である
12	☐	☐	ある中高生達は自分達を悩ませていることについて話せる親しい友達をもっている。	しかし、他の中高生達は自分達を悩ませていることについて話せる親しい友達をもっていない。	☐	☐
13	☐	☐	ある中高生達は自分達子供を本当に重要な（一人の）人間として扱ってくれる両親をもっている。	しかし、他の中高生達は自分達子供を本当に重要な（一人の）人間として通常扱ってくれない両親をもっている。	☐	☐
14	☐	☐	ある中高生達は何を自分が言っているか聞いてくれるクラスメートがいる。	しかし、他の中高生達は自分が何を言っているかクラスメートは大抵きいてくれない。	☐	☐
15	☐	☐	ある中高生達は自分達に公平な先生をもっていない。	しかし、ある中高生達は自分達に公平な先生をもっている。	☐	☐
16	☐	☐	ある中高生達は一緒に時間を過ごしたい親しい友達をもっていない。	しかし、ある中高生達は一緒に時間を過ごしたい親しい友達をもっている。	☐	☐
17	☐	☐	ある中高生達はあるがままの自分達を好きな両親をもっている。	しかし、他の中高生達は自分達ができれば違っていたらと望んでいる両親をもっている。	☐	☐
18	☐	☐	ある中高生達は行事や活動に級友達からあまり誘われない。	しかし、他の中高生達は行事や活動に級友達からよく誘われる。	☐	☐

	私にとって正に真実である	私にとってだいたい真実である			私にとってだいたい真実である	私にとって正に真実である
19	□	□	ある中高生達は気が滅入った時気にかけてくれる先生をもっていない。	しかし、他の中高生達は気が滅入った時気にかけてくれる先生をもっている。	□	□
20	□	□	ある中高生達は自分が話すことを本当に聞いてくれる親しい友達をもっていない。	しかし、ある中高生達は自分が話すことを本当に聞いてくれる親しい友達をもっている。	□	□
21	□	□	ある中高生達は自分達が何をしているかが重要であるように振る舞わない両親をもっている。	しかし、他の中高生達は自分達が何をしているかが重要であるように振る舞う両親をもっている。	□	□
22	□	□	ある中高生達は休み時間にをたびたび一人で過ごす。	しかし、他の中高生達は休み時間をクラスメート達と一緒に過ごす。	□	□
23	□	□	ある中高生達は自分を（一人の）人間として扱ってくれる先生をもっている。	しかし、他の中高生達は自分を（一人の）人間として扱ってくれる先生をもっていない。	□	□
24	□	□	ある中高生達は自分達の気持ちを大切に思ってくれる親しい友達をもっていない。	しかし、他の中高生達は自分達の気持ちを大切に思ってくれる親しい友達をもっている。	□	□

Appendix G

DATA ANALYSIS USING REVISED HARVEY IP SCALE

Descriptive Data on Revised Harvey IP Scores

Means, standard deviations and ranges of the Revised Harvey IP Scale are listed in Table G1. The removal of Item 9 from the Harvey IP Scale reduced mean scores for all of the subsamples. The largest mean score difference between the Harvey IP Scale and the Revised Harvey IP Scale was among American males (difference = 4.60) and the smallest mean score difference was among Japanese females (difference = 1.94).

Table G1.

Means, Standard Deviations and Ranges of Revised Harvey IP Scale Scores

Sample	Mean	SD	Range
American Total (n = 136)	26.65	11.67	3 - 65
Females (n = 71)	26.80	11.53	3 - 65
Males (n = 65)	26.49	11.90	4 - 59
Japanese Total (n = 144)	37.82	10.36	10 - 66
Females (n = 86)	37.72	10.50	14 - 65
Males (n = 58)	37.98	10.24	10 - 66
Total (n = 280)	32.40	12.34	3 - 66
Females (n = 157)	32.78	12.23	3 - 66
Males (n = 123)	31.91	12.51	4 - 66

Analysis of Variance by Gender and Culture

A 2 x 2 ANOVA was computed to determine if there were interaction effects or main effects between culture and gender on mean Revised Harvey IP scores. Findings showed a nonsignificant F value of .046 for the interaction of gender and culture, and a nonsignificant F value of .000 for the main effect of gender. However, a significant F value of 70.411 ($p < .001$) was obtained for the main effect of culture. Table G2 shows means, standard deviations and ranges for gender and culture.

Table G2

Analysis of Variance by Gender and Culture (Revised Harvey IP)

Source	Means	df	F
		Between Subjects	
Gender	32.78 (female) 31.91 (male)	1	.000
Culture	26.65 (American) 37.83 (Japanese)	1	70.411**
Gender x Culture		1	.046
Error		276	(112.246)

Note. Values enclosed in parentheses represent mean square errors.
*p < .05. **p < .01

Analysis of Revised IP Scores by Gender using Culture, Self-perception, Self-concept, and Social support variables

Split file regression analyses were performed on the data in order to examine gender differences in Revised IP scores among culture, self-perception, self-concept and social support predictors as shown in Table G3. For female subjects 23% of the variance in Revised IP scores was accounted for by culture, self-perception, self-concept and social support variables (Rsq = .300; Adjusted Rsq = .231). This was a statistically significant finding with $F = 4.339$ ($p < .001$). Culture was the only significant single predictor for females ($B = -.297$; $t = -2.060$; $p = .041$), although global self-worth approached significance ($B = -.247$; $t = -1.969$; $p = .051$).

For male subjects 20% of the variance in Revised IP scores was accounted for by culture, self-perception, self-concept and social support variables (Rsq = .290; Adjusted Rsq = .198). There were no single significant predictors for males although culture approached significance ($B = -.241$; $t = -1.722$; $p = .088$).

Table G3 .

Regression Analysis by Gender for Combined Model Predicting Revised IP

	Female Sample n = 157					Male Sample n = 123				
Scale	Beta	t	Rsq	Adj. Rsq	F	Beta	t	Rsq	Adj. Rsq	F
Overall model			.300	.231	4.339**			.290	.198	3.156**
Culture	-.297	-2.060*				-.241	-1.722			
Scholastic	-.125	-1.164				-.110	-.900			
Athletic	-.062	-.809				-.037	-.374			
Physical	.031	.324				.041	.363			
Behavioral	.087	1.031				.052	.483			
Close friend	-.106	-.898				-.027	-.181			
Global self-worth	-.247	-1.969				.005	.036			
Sociability	-.051	-.442				-.063	-.515			
Competence	.112	.968				.088	.655			
Dependability	-.148	-1.144				-.256	-1.608			
Parent Support	.018	.198				.088	.833			
Classmate Support	-.066	-.630				-.133	-1.087			
Teacher Support	.066	.695				.051	.498			
Friend Support	.149	1.267				-.023	-.146**			

*p < .05; **p < .01

Analysis of Revised IP by Culture using Gender, Self-perception, Self-concept, Social support variables

Split file regression analyses were performed on the data in order to examine cultural differences in Revised IP among gender, self-perception, self-concept and social support predictors as shown in Table G4. For American subjects 0% of the variance in IP scores was accounted for by gender, self-perception, self-concept and social support (Rsq = .089; Adjusted Rsq = -.016). This was a nonsignificant finding with F = .845 (p = .620).

However, for Japanese subjects, 40% of the variance in Revised IP scores was accounted for by gender, self-perception, self-concept and social support (Rsq = .461; Adjusted Rsq = .402). This was a statistically significant finding with F = 7.878 ($p < .001$). Significant single predictors for Japanese subjects were Scholastic Self-perception (B = -.148; t = -2.050; p = 042), Global Self-worth (B = -.293; t = -2.852; p = .005), Sociability (B = -.200; t = -2.057; p = .042) and. Teacher Support (B = .146; t = 2.2070; p = .040).

Table G4.

Regression Analysis by Culture for Combined Model Predicting Revised IP

	American Sample n = 136					Japanese Sample n = 144				
Scale	Beta	t	Rsq	Adj. Rsq	F	Beta	t	Rsq	Adj. Rsq	F
Overall model			.089	-.016	.845			.461	.402	7.878**
Gender	.005	.048				-.015	-.203			
Scholastic	-.006	-.055				-.148	-2.050*			
Athletic	-.114	-1.106				-.086	-1.198			
Physical	.150	1.422				-.023	-.268			
Behavioral	.053	.481				-.103	-1.405			
Close friend	-.061	-.376				.050	.552			
Global self-worth	.099	.726				-.293	-2.852**			
Sociability	.040	.297				-.200	-2.057*			
Competence	-.105	-.807				.038	.511			
Dependability	.105	-.908				-.133	-1.559			
Parent Support	.137	1.158				-.087	-1.200			
Classmate Support	-.157	-1.124				-.068	-.708			
Teacher Support	-.113	-.996				.146	2.070*			
Friend Support	.091	.580				-.130	-1.303			

*p < .05; **p < .01

Analysis of Revised IP and Self-Perception by Culture

Split file regression analyses were performed on the data in order to examine six levels of self-perception (Scholastic, Athletic, Physical, Behavioral, Close Friend, and Global Self-Worth) on Revised IP scores among American and Japanese subjects as shown in Table G5. For American subjects 0% of the variance in Revised IP scores was accounted for by self-perception (Rsq = .042; Adjusted Rsq = -.002). This was a nonsignificant finding with F = .947 (p = .464).

Among Japanese subjects 32% of the variance in Revised IP scores were accounted for by self-perception (Rsq = .349; Adjusted Rsq = .320). This was a statistically significant finding with F = 12.223 (p < .001). Among the six self-perception variables, only Global Self-worth was a significant predictor of Revised IP (B = -.444; t = -4.739; p < .001) for the Japanese sample.

Table G5

Regression Analyses by Culture for Self-Perception Variables Predicting Revised IP

	American Sample					Japanese Sample				
Predictor Variables	B	T	Rsq	Adj. Rsq	F	B	T	Rsq	Adj. Rsq	F
Overall model			.042	-.002	.947			.349	.320	12.223**
Scholastic	-.086	-.921				-.107	-1.503			
Athletic	-.123	-1.347				-.137	-1.891			
Physical appearance	.106	1.080				.022	.249			
Behavior	.081	.813				-.117	-1.572			
Close Friend	-.028	-.298				-.123	-1.588			
Global self-worth	.094	.809				-.444	-4.739**			

*p < .05; **p < .01

Analysis of Revised IP and Self-Concept by Culture

Split file regression analyses were performed on the data in order to examine three levels of self-concept (Sociability, Competence and Dependability) on Revised IP scores among American and Japanese subjects as shown in Table G6. For American subjects 0% of the variance in IP scores was accounted for by self-concept (Rsq = .014; Adjusted Rsq = -.008). This was a nonsignificant finding with F = .647 (p = .586).

Among Japanese subjects 25% of the variance in Revised IP scores were accounted for by social support (Rsq = .267; Adjusted Rsq = .251). This was a statistically significant finding with F = 16.976 ($p < .001$). Among the self-concept variables, Sociability (B = -.382; t = -4.385; $p < .001$) and Dependability (B = -.202; t = -2.235; p = .027) were found to be significant predictors of Revised IP scores.

Table G6

Regression Analyses by Culture for Self-Concept Variables Predicting Revised IP

	American Sample					Japanese Sample				
Predictor Variables	B	T	Rsq	Adj. Rsq	F	B	T	Rsq	Adj. Rsq	F
Overall model			.014	-.008	.647			.267	.251	16.976**
Sociability	.028	.257				-.382	-4.385**			
Competence	-.085	-.787				.020	.262			
Dependability	.123	1.263				-.202	-2.235*			

*p < .05; **p < .01

Analysis of Revised IP and Social Support

Split file regression analyses were performed on the data in order to examine the four levels of social support (Parent Support, Classmate Support; Teacher Support; and Friendship Support) on Revised IP scores among American and Japanese subjects as shown in Table G7. For total American subjects only 1% of the variance in Revised IP scores was accounted for by social support (Rsq = .041; Adjusted Rsq = .012), which was a nonsignificant finding with F = 1.398 (p = .238).

Among Japanese subjects 19% of the variance in Revised IP scores were accounted for by social support (Rsq = .216; Adjusted Rsq = .194). This was a statistically significant finding with F = 9.595 ($p < .001$). Parent Support (B = -.163; t = -2.062; p = .041) and Classmate Support (B = -.285; t = -2.864; p = .005) were found to be significant social support predictors of Revised IP scores among the Japanese sample.

Table G7

Regression Analyses by Culture for Social Support Variables Predicting Revised IP

	American Sample					Japanese Sample				
Predictor Variables	B	T	Rsq	Adj. Rsq	F	B	T	Rsq	Adj. Rsq	F
Overall model			.041	.012	.238			.216	.194	9.595**
Parent Support	.208	2.003				-.163	-2.062*			
Classmate Support	-.147	-1.357				-.285	-2.864**			
Teacher Support	-.081	-.787				.064	.831			
Close Friend Support	.078	.808				-.149	-1.542			

*p < .05; **p < .01

Appendix H

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Date: February 4, 2000 IRB #: HE-00-134

Proposal Title: "SOCIAL SUPPORT, SELF-CONCEPT, SELF-PERCEPTION, AND GENDER PREDICTORS OF THE IMPOSTER PHENOMENON AMONG AMERICAN AND JAPANESE ADOLESCENTS"

Principal Investigator(s): Patricia Self, Angela Redcross, Tonia Caselman, Sandra Ragan, Rachel Spicer

Reviewed and Processed as: Expedited (Special Population)

Approval Status Recommended by Reviewer(s): Approved

PI agrees to only go into the prospective schools that have already received written permission from school administration. These written permission letters will be provided to the IRB executive secretary, Sharon Bacher, before the research in that particular school is started.

Signature:

Carol Olson, Director of University Research Compliance

February 4, 2000
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Tonia Denise Caselman

Candidate for the Degree of

Doctor of Philosophy

Dissertation: THE IMPOSTER PHENOMENON AMONG AMERICAN AND JAPANESE ADOLESCENTS: GENDER, SELF-PERCEPTION, SELF-CONCEPT, AND SOCIAL SUPPORT VARIABLES

Major Field: Human Environmental Sciences

Biographical:

Education: Graduated from Ramona High School, Riverside, California in June 1972; received Bachelor of Arts degree in English literature from Oral Roberts University, Tulsa, Oklahoma in May 1985; received a Master of Social Work degree from the University of Oklahoma, Norman, Oklahoma in 1987. Completed the requirements for the Doctor of Philosophy Degree with a major in Human Environmental Sciences in December, 2000.

Experience: Employed at Children's Medical Center, Tulsa, Oklahoma from 1987 to 1991 in the adolescent group home and later as director of the therapeutic foster care program; employed at New Hope Hospice, Tulsa, Oklahoma from 1991 to 1997 as consultant and later as executive director; employed at Monte Cassino Elementary School, Tulsa, Oklahoma as a part time counselor 1997 to the present; self-employed in private practice 1991 to present; employed at University of Oklahoma as adjunct faculty for the School of Social Work.

Professional Memberships: National Association of Social Workers, Ch.A.D.D., National Women's Studies Association