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Self-Efficacy and Culture:

A comparison of Denmark and the United States

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### Abstract

Self-efficacy and its relation to culture, parenting styles, and socioeconomic status (SES), were examined. In Study 1, Danish and American students took the General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995) as well as questions about SES. The hypothesis that Danish students would report a higher level of self-efficacy was confirmed. In Study 2, Americans, along with the self-efficacy scale, were given a scale assessing parents' parenting styles as well as the parenting styles they would use as a parent and questions about autonomous and dependent parenting scenarios. The hypothesis that individuals with low self-efficacy would participants would react less calmly than those with high self-efficacy following autonomous scenarios was partially confirmed because a trend was found for those with low self-efficacy to be less calm after reading autonomous scenarios. This research has implications for the possible long-term benefits of autonomous parenting styles as well as effects of culture on self-efficacy.

### A comparison of Denmark and the United States

Cross-cultural psychology is a widely studied area, and countless constructs are defined or shaped by culture. Our environment shapes the person that we are and our viewpoints concerning many different essential aspects of life, such as norms, values, and ideas (e.g. Minggang & Yuan, 2004). When we are studying human behavior, it is important to understand it through the lens of culture and consider that there might be cultural differences. One construct that is influenced by culture is self-efficacy because of the importance of environmental factors in the development of self-efficacy (Scholz et al., 2002; Eaton & Dembo, 1997; Klassen, 2004; Schwarzer & Born, 1997; Kim & Omizo, 2005). Self-efficacy is influenced by many factors, and among the most important are parents, peers, and teachers (Bandura 1994). Since these factors vary widely according to culture, self-efficacy also varies widely depending on what values are upheld in the specific culture. When studying self-efficacy, culture is an important thing to keep in consideration. Both self-efficacy and culture are vital components to everyday life, and they interact with each other to make us who we are.

General self-efficacy can be defined as “people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura, 1994, v.4, p. 71). Self-efficacy determines how people feel, think, motivate themselves, and behave (Bandura, 1994). Albert Bandura created the concept of self-efficacy and although the labeling and definition of self-efficacy is fairly recent, many researchers have followed Bandura’s lead by studying self-efficacy further (Scholz et. al., 2002; Armitage et. al., 1999; Fan & Mak, 1998; Griffiths, 2007; Kim & Omizo, 2005; Klassen, 2004; Kumar & Lal, 2006; Schwarzer & Jerusalem, 1995; Schwarzer & Fuchs, 1996). Self-efficacy facilitates goal-setting, effort investment, persistence in the face of barriers, and recovery from setbacks (Scholz et. al., 2002; Armitage et. al., 1999). We are affected by self-efficacy, and it impacts our goals and accomplishments. Although

some researchers use this definition of self-efficacy to be applied to a broad range of activities, most understand self-efficacy as a more task-specific construct. Self-efficacy affects the way people view the world and the responsibilities and challenges they face. Self-efficacy can be applied to many areas of life, such as smoking cessation, nutrition, academic goals, and physical exercise (Armitage et. al., 1999).

Those with high self-efficacy will set higher and more ambitious goals due to their increased motivation (Luszczynska & Schwarzer, 2005). In addition, these individuals will be more driven in attaining their goals (Luszczynska & Schwarzer, 2005). Unfortunately, less efficacious individuals often imagine failure scenarios, have self-doubts, and procrastinate taking a risk or making a change in their life (Schwarzer & Fuchs, 1996). Those who have high self-efficacy attribute failure to a lack of effort, but quickly bounce back after a setback or disappointment (Bandura, 1994).

High self-efficacy is a very valuable asset because it promotes high self-esteem and helps in virtually every aspect of life. Those with a positive self-efficacy tend to accomplish much more, have lower stress levels, and a lower vulnerability to depression (Bandura, 1994). Self-efficacy is also connected with self-esteem and confidence. The relationship of these constructs is cyclical because self-efficacy leads to both self-esteem and confidence, however, self-esteem and confidence may also impact efficacy levels. In contrast, it is easy for individuals with low self-efficacy levels to suffer from low self-esteem, high stress levels, and depression.

#### *Development of Self-Efficacy*

The development of self-efficacy is a process shaped by environment (Bandura 1994). Many of the crucial factors that shape an individual's self-efficacy are a result of the environment, and the most important factors are family, peers, and school. The first element that influences self-efficacy is family. The formation of a positive sense of self-esteem begins in infancy. Bandura

(1994) explains that “parents who are responsive to their infants' behavior, and who create opportunities for efficacious actions by providing an enriched physical environment and permitting freedom of movement for exploration, have infants who are accelerated in their social and cognitive development” (v. 4, p. 77). According to Bandura, our initial efficacy experiences are centered in the family, and parental influences are extremely important because they can begin to instill a sense of competence in the child. Ereford (1995) also found that parenting has an effect on self-efficacy. Participants who reported their parents to be more autonomy-enhancing instead of controlling reported higher levels of self-efficacy in problem-solving. However, as children grow and develop, many other outside elements have a great impact on their self-efficacy level as well, such as peer relationships and teachers. Some studies have also found that supportive rather than controlling and authoritarian parenting has been related to self-efficacy (Whitbeck et. al., 1997; Juang & Silbereisen, 1999; Ingoldsby, 2004).

Peer relationships are the second factor in forming self-efficacy. Peers who have a high self-efficacy can serve as a model of thinking for others. Many students use their peers as a reference to judge their own self-efficacy. Individuals who form healthy friendships with peers may strengthen their own interests and self-efficacy. In contrast, those with disrupted relationships may suffer and experience setbacks in self-efficacy levels (Bandura, 1994).

A third element that is critical in forming self-efficacy is school. This is where the cognitive and problem-solving abilities are developed. The teacher has a great impact on a student's development of self-efficacy. In school, a student's intellectual self-efficacy is formed, which has many implications for academic and intellectual pursuits for the rest of an individual's life (Bandura, 1994). Unfortunately, some extremely intelligent students suffer academically because they are not motivated. In Alexander Minnaert's presentation at Gronningen University (10/16/07), he explained that some students are gifted, but not motivated. This can be a harmful

cycle, and it is necessary for teachers to recognize students like these and create a specialized education plan so that they will be challenged in the right way and they can begin to develop motivation to succeed in school (Minnaert, 2007).

This study explores the relation of self-efficacy and culture. Through research concerning the development of self-efficacy, it is apparent that factors such as parenting, peers, and teachers are important. In an assessment of self-efficacy differences between individuals in Denmark and the United States, differences in parenting, peer relationships, and teacher methods may account for differences in self-efficacy levels.

### *Self-Efficacy and Culture*

It is evident that self-efficacy is largely a construct influenced by experience. Therefore, it is necessary to consider self-efficacy as an element of culture. There has been much cross-cultural work on self-efficacy, and it is important to look at the differences in self-efficacy across cultures. One distinction that many researchers have made is between individualistic and collectivist cultures. Those in individualistic cultures have been found to have higher levels of self-efficacy. It has been found that those from collectivist cultures, such as Asian cultures, have lower self-efficacy levels despite the fact that they are more successful in academics, in general, than those in individualistic cultures (Scholz et al., 2002). Researchers have suggested that for many Asian students, academic motivation is driven by higher levels of fear of failure because they are influenced by a desire to please their parents by succeeding academically. Fear of failure was actually a better predictor of academic achievement than self-efficacy was for Asian American students because they had relatively low levels of self-efficacy (Eaton & Dembo, 1997).

Some researchers have made the distinction between collectivist and individualistic differences between levels of self-efficacy as result of different interpretations of self-efficacy itself- for example, collectivist cultures tend to have a more realistic view of their abilities than

individualistic cultures and therefore collectivist cultures tend to have lower self-efficacy levels.. Klassen (2004) explains that “for some non-Western groups, collective efficacy appears to operate in much the same way as self-efficacy operates for Western groups. Realistic- as opposed to optimistic- efficacy beliefs do not necessarily predict poor performance for all cultural groups, as has been suggested by self-efficacy theory.” Therefore, these researchers suggest that the reason why there might be a variation in self-efficacy is because individualistic cultures are too optimistic in their ratings of self-efficacy, and collectivist cultures are more realistic.

In the present study, the Danish and American cultures were studied. Hofstede (1980) found that the American culture has an individualism ranking of 1, while Denmark has a ranking of 9. The ranking of Denmark was similar to other European countries, such as France and Sweden. In other words, the United States is very individualistic, while Denmark is somewhat less individualistic. According to this data as well as the data concerning self-efficacy differences in individualistic and collectivist cultures, one might hypothesize that Danes would have lower levels of self-efficacy because, according to this scale, Denmark would be more similar to collectivist cultures than the United States. However, I hypothesize that Danes will actually have higher levels of self-efficacy due to other cultural aspects, namely the autonomous parenting styles that are characteristic in Denmark.

#### *Self-Efficacy Scores in Denmark*

Although there has been extensive research done on the cultural influence of self-efficacy, relatively little research has been done on self-efficacy in Denmark. Scholz et al. (2002) did research on cross-cultural differences in self-efficacy levels, and some of the research has involved participants from Denmark, which pertains to the present study. Scholz’s research involved Danish nurses, all of whom were female. These individuals were given the general self-efficacy questionnaire developed by Schwarzer and Jerusalem (1995). It was found that these

Danish individuals had higher self-efficacy levels than the American participants in the study.

In addition, some studies have found that Danes tend to self-enhance less, but nevertheless, they still have higher levels of independence (Thomsen, Sidanius, & Fiske, 2007). It has also been noted that Danes report more autonomous scenario choices (Thomsen, Sidanius, & Fiske, 2007). In this study, autonomous choices entailed making important life choices that did not coincide with the participants' parents' choices for their children. Although Americans tended to self-enhance more than Danes did, much of the self-enhancement was actually false optimism and a trend of false uniqueness. The authors also explained that the Danish culture stresses the importance of equality of outcome, which is displayed through the welfare system in Denmark, which gives greater amounts of money and allows more equality to those in need than the welfare system in the United States.

#### *Parenting in Denmark*

In the present study, the Danish parenting style of autonomy was hypothesized to be a potential factor in determining differences in self-efficacy scores. Thomas (1990) writes that "Danes are so democratic and children so respected that students have rights beyond what they would in the US." Parents and teachers consciously strive to instill democracy in children, and children are the center of attention and are looked up to.

In addition, some studies have reported that American parenting tends to be more authoritarian. Kandel and Lesser (1969) wrote that "American parents insist on many more specific rules than do the Danes. In addition, the authors found that Danish parents communicate more with their children than American parents and children did.

Starting from a young age, there are differences noted between the Danish and American styles of caring for children. Weis (2003) studied childcare philosophies in Denmark and the United States, and teachers from Danish and American preschools were given questionnaires



about their interactions and philosophies on caring for children. In this study, “the Danish childcare providers reported more liberal behaviors and fewer interventions between children’s interactions.”

One extremely famous Dane concerned with the education system is Nikolaj Frederik Severin Gruntvig. He founded the Danish *folkehøjskole*, which are similar to boarding schools for high-school aged children. In the *folkehøjskolen*, ideas of freedom and responsibility are stressed, and the community of students and teachers is important (Allchin et al., 2000). In addition, no grades are given at *folkehøjskolen*, and the schools are based on a democratic structure (Himmelstrup, 1992). At many of these schools, children are required to do chores such as cleaning their rooms, making or cleaning up meals, or even cleaning up the horse stables. The students often engage in learning opportunities that Americans might consider out of the ordinary for 14-year-olds in school, such as directing their own movies, fixing up cars, or singing in a rock band. In many *folkehøjskolen*, children are allowed to choose what and when they are ready to learn. I hypothesize that the Danish principles of democracy and autonomy within a framework of responsibility may help instill and foster self-efficacy in Danish youth according to previous data found on parenting and self-efficacy.

#### *Self-Efficacy and Economic Status*

Research has been done on the relation between self-efficacy and economic status. Titma et al. (2007) conducted a longitudinal study on Estonians because of recent transitions in Estonia that forced individuals to take new initiatives in their lives. They found that self-efficacy beliefs had effects on the economic success on adults, and the reverse was also true. Those who had grown up in Estonia and experienced economic hardships had significantly lower levels of self-efficacy than those who had not experienced economic hardships in the past (Titma et al.). This research concludes that economic status has an impact on self-efficacy. Also, in a study done on

career and academic self-efficacy, it was found that those with a higher socioeconomic status had higher self-efficacy levels (Griffiths, 2006).

### *Self-Efficacy and Gender*

There have been some mixed findings on the relationship between gender and self-efficacy. Some researchers have found that females have higher self-efficacy levels (Kumar & Lal, 2006). However, some have found different results when specific types of self-efficacy were considered. Malpass et. al. (1999) found that males had higher self-efficacy levels for math. When computer self-efficacy was studied, it was found that males and females reported similar levels of self-efficacy (Imhof, Vollmeyer, & Beierlein, 2007).

### *The Present Study*

In summary, self-efficacy predicts motivation and behavior and has a great impact on performance in many areas of life (Bandura, 1994; Minnaert, 2007; Scholz et. al., 2002; Armitage et. al., 1999; Luszczynska & Schwarzer, 2005). Self-efficacy is formed in many ways, and can be determined and influenced early in life by family, peers, and school. Experiences in life also have an impact on self-efficacy; thus, one needs to view self-efficacy as a construct of culture. Due to this fact, cross-cultural differences in self-efficacy levels may be present. There has been some research conducted; however, much more needs to be done on cross-cultural levels of self-efficacy. In the present study, the Danish and American cultures were examined based on research concerning parenting and its relationship to self-efficacy (Bandura, 1994). In particular, the autonomous aspect of the Danish care-giving philosophy was researched in this study due to prior research concerning Danish tendencies of autonomy (Allchin et al., 2000; Thomsen, Sidanius, & Fiske, 2007; Weis, 2003; Himmelstrup, 1992; Thomas, 1990). In the present study, autonomy will be examined through questionnaires concerning autonomous and dependent parenting scenarios.

Through previous research, it has been found that self-efficacy affects various aspect of life such as motivation, goals, and accomplishment of tasks. In the Study 1, individuals were given the general self-efficacy scale. They were also asked questions concerning their background and socioeconomic status. The primary hypothesis of the first study was that Danes would report higher self-efficacy scores than Americans. Further hypothesis of the first study were that there would be higher self-efficacy scores in individuals who reported higher socioeconomic statuses and that female participants would display higher efficacy levels.

With the American sample in Study 2, it was hypothesized that those with high self-efficacy would react more positively to children allowed to act autonomously than those with low self-efficacy. Another hypothesis was that those with high self-efficacy would report the autonomous scenarios as more appropriate than those with low self-efficacy. Also, it was hypothesized that those with high self-efficacy would respond with less negative affect to the autonomous scenarios than those with low self-efficacy. Finally, it was hypothesized that those with high self-efficacy would report more autonomous skills used by their parents than those with low self-efficacy.

## Method

### *Participants*

Eighteen male and female university students in Copenhagen, DK from the University of Copenhagen participated in the first part of this experiment. Participants ranged from 21 to 39 years old. The questionnaires were administered during class time, and students did not receive course credit for their participation. Forty-nine male and female college students in St. Peter, MN from Gustavus Adolphus College participated in the second part of this experiment. Participants ranged from 18 to 22 years old. The participants were enrolled in a psychology course and received course credit for their participation.

*Questionnaires**Study 1*

Both groups of participants (Danish and American) received both The General Self-Efficacy Scale as well as a questionnaire including questions regarding socioeconomic background. The General Self-Efficacy Scale developed for American samples (Schwarzer & Jerusalem, 1995) was used in this experiment. This questionnaire consists of ten questions about ability to accomplish tasks in general. Typical items are "Thanks to my resourcefulness, I know how to handle unforeseen situations," and "When I am confronted with a problem, I can usually find several solutions." The likert scale ranged from one, meaning "not at all true" to four, meaning "extremely true." It has been used in numerous research projects, where it typically yielded internal consistencies between  $\alpha = .75$  and  $.91$  (Schwarzer & Jerusalem, 1995). In order to help the participants understand the questions, some of the English words were translated into Danish by a native speaker. For the complete General Self-Efficacy Scale and all other measures, see the appendix. In addition, participants were asked fourteen questions concerning their socioeconomic status, spending habits, and family background. The questions pertained to everyday habits and cultural background in order to get a contextual view of the individual. Some of the questions included were, "How much money do you spend per month on entertainment purposes?" "How many television sets does your family own?" "How many times per month do you go out to eat?" and "What is your view of you socioeconomic status as a whole?"

*Study 2*

American participants were given a questionnaire concerning parenting skills. They were asked to first report the importance of ten parenting skills to their parents on a five-point likert scale, with one meaning "not at all important" and five meaning "extremely important." Next they were asked to report the importance they would give to the given characteristics as a potential

parent. This questionnaire was used to test the hypothesis that those with high self-efficacy would report their parents to have put more importance on characteristics that promoted autonomy. Some of the items on the scale included “promoting independence,” “encouraging individualism,” “promoting cognitive skills,” and “promoting creativity.” The scale was developed using some typical parenting skills that would be employed by parents and included three skills that would promote autonomy in children, and one that might hinder autonomy. Participants were also given a 10-point optimism questionnaire as a distracter task. A distracter was used so that the participants would be less likely to catch on to the commonalities between the questionnaires and the possible goals of the study.

Additionally, American participants were administered a questionnaire concerning childcare scenarios. The scenarios were developed from the author’s personal experiences in Denmark in regards to the promotion of autonomy, responsibility, and independence by childcare providers. Participants were asked to read five different scenarios and answer questions about their affect following the scenario, their rating of appropriateness of the scenario, and how likely they would be to take certain actions in response to the scenario. Participants were randomly assigned either autonomous scenarios or dependence scenarios. The autonomous scenarios depicted situations that gave children more freedom, independence, and responsibility. These scenarios were more characteristic of the childcare philosophy in Denmark. The following is an example of an autonomous scenario:

Imagine that you are babysitting or nannying for a four-year-old girl and a 14-year-old boy. The girl loves to do arts and crafts, so you bring out the huge box of coloring books, markers, crayons, glue, and everything else she might need. She is coloring a picture, and you go in the other room for a couple minutes to make some dinner after her older brother volunteers to watch her while she’s playing with the arts and crafts. When you get back in the room, you see that she has picked up an adult-sized scissors and is cutting out her picture. The older brother is smiling at her as she cuts around the corners of the picture.

Participants were then asked the extent to which they experienced certain emotions, including frightened, interested, surprised, calm, sad, at ease, afraid, and nervous. They were asked to rank their experience of these emotions from one, meaning “did not experience at all” to five, meaning “strongly experienced.” Next, they were asked their rating of the appropriateness of the scenario, on a likert scale from one, meaning “extremely inappropriate” to five, meaning “extremely appropriate.” Finally, they were asked their likelihood to agree or disagree with certain actions in response to the scenario on a likert scale of one, meaning “strongly disagree” to five, meaning “strongly agree.”

The dependent scenarios were similar to the autonomous scenarios because the situations were the same, but the parenting style was more protective and cautious. The following is one of the dependent scenarios:

Imagine that you are babysitting or nannying for a four-year-old girl and a 14-year-old boy. The girl loves to do arts and crafts, so you bring out the huge box of coloring books, markers, crayons, glue, and everything else she might need. She is coloring a picture, and you go in the other room for a couple minutes to make some dinner after her older brother volunteers to watch her while she’s playing with the arts and crafts. When you get back in the room, you see that she has picked up an adult-sized scissors and is cutting out her picture. You see the older brother snatch it out of her hands and tell her, “You know you’re not old enough to use scissors! You could cut yourself! Let me cut that out for you.”

### *Procedure*

In Study 1, the Danish participants were given the questionnaires and asked to fill them out. The participants were given the questionnaire during class time. The questionnaires took about 10 minutes to complete. In Study 2, the American participants were given the questionnaires in a scheduled time outside of class, and they signed up via an on-line study site. The participants were given the questionnaires and asked to fill them out. The questionnaires took about 20 minutes to complete.

## Results

### *Study 1*

As expected, Danish participants ( $M = 31.28$ ) had higher self-efficacy scores than American participants ( $M = 27.88$ ),  $t(65) = 2.96, p < .005$ . The data from the socioeconomic (SES) questionnaire appeared to be contrary to predictions. The SES answers of Danes and Americans were compared. There was a main effect of country for rating of one's SES as a whole, with Danes ( $M = 2.07$ ) rating their SES to be significantly lower than Americans ( $M = 2.67$ ),  $t(1, 64) = 5.63, p < .005$ . Danes were also significantly less likely to go out to eat, ( $M = 1.67$ ) than Americans ( $M = 3.80$ ),  $t(1, 64) = 8.58, p < .005$ . In addition, Danes reported fewer television sets owned by their family ( $M = 2.07$ ) than Americans ( $M = 4.10$ ),  $t(1, 64) = 20.87, p < .001$ . Thus, the expected connection between self-efficacy and SES was not formed.

### *Study 2*

A median split was performed on the summed self-efficacy scores of the American participants, and high vs. low self-efficacy became one of the independent variables. Those who were in the low self-efficacy group had scores from 15-28, and those in the high self-efficacy group had scores from 28-36. A 2 x 2 Analysis of Variance was conducted with self-efficacy level as one independent variable and scenarios type as the other independent variable. The two dependent variables were affect scores and appropriateness responses.

#### *Affect Scores*

For the affect scores, participants' reports of being frightened, surprised, afraid, and nervous represented a single factor of negative arousal ( $\alpha = .93$ ). A main effect of scenario type was found for negative arousal,  $F(1, 45) = 16.12, p < .001$ . Negative arousal scores were higher for the autonomy ( $M = 14.74$ ) vs. dependent ( $M = 10.71$ ) condition,. There was not a main effect of self-efficacy level and there was no significant interaction. In addition, reports of calm and at ease

represented a single factor of low arousal ( $\alpha = .90$ ). Participants reported feeling calmer in the dependent ( $M = 16.48$ ) vs. autonomous ( $M = 14.31$ ) condition,  $F(1, 45) = 5.43, p < .05$ . A marginally significant interaction ( $F(1, 45) =$ ) was found for those with high self-efficacy to feel calmer than those with low self-efficacy when confronted with autonomous scenarios. This finding is shown in Figure 1.

### *Appropriateness Ratings*

Contrary to predictions, participants reported the autonomous scenarios ( $M = 2.95$ ) to be more appropriate than the dependent scenarios ( $M = 2.46$ ),  $F(1, 45) = 10.09, p < .005$ .

### *Parental Autonomy*

Contrary to predictions, there was not a significant positive correlation of self-efficacy with reports of parental importance on autonomous care giving skills. Reports of their parents' stress on various autonomous skills was not significantly related to self-efficacy level  $-r(48) = .12$ , n.s. Furthermore, there was not a significant correlation of self-efficacy with reports of self-importance on autonomous care giving skills  $-r(48) = .14$ , n.s.

## Discussion

In Study 1, it was hypothesized that Danes would have higher self-efficacy levels than Americans. This hypothesis was confirmed, as there was a main effect for nationality. This finding supports research that has found difference in self-efficacy according to culture (Scholz et al., 2002; Eaton & Dembo, 1997; Klassen, 2004; Schwarzer & Born, 1997; Kim & Omizo, 2005). In Study 2, it was hypothesized that autonomous parenting was driving self-efficacy scores.. This hypothesis was made due to research on autonomy in parenting and its relation to self-efficacy level (Ereford, 1995; Whitbeck et. al., 1997; Juang & Silbereisen, 1999; Ingoldsby, 2004; Thomsen, Sidanius, &



Fiske, 2007; Thomas, 1990; Kandel & Lesser, 1969; Weis, 2003; Moos & Møller, 2003; Allchin, 2000). Therefore, American participants were tested for responses to autonomous and dependent scenarios.

The hypotheses concerning the reactions to these questionnaires were that those with high vs. low self-efficacy would report with lower negative affect and higher calmness in response to autonomous scenarios as opposed to dependent scenarios. In addition, it was hypothesized that those with higher self-efficacy would report the autonomous scenarios as more appropriate than those with low self-efficacy. In regards to affect responses to the scenarios, the American participants reported higher levels of negative arousal in response to the autonomous scenarios and higher levels of low arousal in the dependent condition, supporting the idea that people were generally more negatively aroused in response to autonomous scenarios. There was a marginal interaction between self-efficacy level and type of scenario. Although it was not significant, a trend was found for those with lower self-efficacy to feel less calm than those with higher self-efficacy when they were confronted with autonomous scenarios. This may represent a theme that those with low self-efficacy tend to be more affected by conditions that are unfamiliar to them. The possible reason why there was a finding for calmness and not negative arousal is that participants may have been less inclined to put high values for emotions such as “frightened” and “nervous,” instead of reporting that they experienced these emotions to a high degree, they simply reported lower values for emotions such as “calm” and “at ease.”

It was hypothesized that those with higher self-efficacy would consider the autonomous scenarios to be more appropriate than those with low self-efficacy, and that there would be a higher appropriateness score overall for the dependence scenarios. However, the results were contrary to the hypothesis. Both groups rated the autonomous scenarios to be more

appropriate than the dependent scenarios. One explanation for this unpredicted finding is participant expectations. Although many participants may have stated that they would view the autonomous scenarios as being more appropriate, these ratings might not be representative of the actions that the participants would actually take. Instead, participants could have simply been answering according to what is socially acceptable, instead of what they would do in practice.

Another hypothesis of this study was that those who reported higher self-efficacy levels would also recount more autonomous parental skills employed by both their parents as well as themselves as potential parents. Contrary to predictions, there were no significant correlations. One potential reason for the lack of relationship between these two variables is due to ceiling effects. The questions were answered on a likert scale from 1-5, and the majority of participants responded with a four or five to each of the ten parental skills, reporting a majority of the parenting skills as “extremely important,” limiting the variability of scores.

#### *Socioeconomic Status and Self-Efficacy*

It was predicted that those who reported a higher socioeconomic status (SES) would have higher levels of self-efficacy (Titma et. al., 2007; Griffiths, 2006). In this case, the SES questionnaires of Danes were measured against those of Americans. The ratings of general SES were actually significantly lower in Danes even though their self-efficacy level was higher than the Americans'. This result could be due to the populations that were examined; in Denmark the participants all attended the University of Copenhagen, a large public college in the capital of Denmark, which Danish students attend at no cost. In contrast, the American participants attended Gustavus Adolphus College, a small, private liberal arts college in Minnesota, who most likely come from homes with higher SES levels than the Danes in this study. Also, the Danes' reporting a lower SES might be due to the fact that they often downplay their merits. In Denmark, there is a

cultural tendency to stress equality rather than emphasizing one's own personal virtues or accomplishments. In addition, it was found that Danes reported that they went out to eat less often than Americans and their families owned fewer television sets than Americans. This finding may not have been related to self-efficacy but could be related to cultural norms that have no correlation with self-efficacy, such as an importance of eating out for social reasons. For example, it might be that Danes do not place importance on going out to dinner and would rather stay at home, even if they have money to eat out if they chose to do so. The report of television sets might simply be due to the smaller homes in Denmark and the rest of Europe, in contrast to homes in America that tend to be bigger and have more rooms and therefore more space for television sets.

### *Conclusion*

This research supported the hypothesis that Danes have higher self-efficacy levels than Americans. However, the hypotheses concerning the effects of parental autonomy were not supported. These differences in self-efficacy might be due to some other cultural difference between Denmark and the United States. One possibility is the general quality of life and happiness experienced in Denmark. For many years, Danes have ranked high on happiness scales, often landing the number one spot. In contrast, the United States scored 23<sup>rd</sup> in a recent study. This happiness that Danes enjoy may play a role in their high report of self-efficacy. There have been studies that tie self-efficacy level and happiness (Young & Bradley, 1998; Caprara et. al., 2006). This would be an interesting area for further study.

A limitation to this study was that Danes were not asked about their responses to autonomous parenting questionnaires. It could be helpful to study Danes' perception of the different types of scenarios to see how they respond to both autonomous and dependent scenarios, since only Americans' perceptions of the scenarios were tested in the present study. Another

possible limitation was the homogeneity of participants. In Denmark, a small number of participants filled out the questionnaires, and they may have represented only a part of the larger picture of self-efficacy. Conversely, at Gustavus Adolphus College, some of the questionnaires, such as the questions concerning SES and parental skills, might have been skewed because of the lack of diversity of participants. For these reasons, it would be helpful to gather a larger and more diverse sample of participants.

This research has several implications for everyday life. It is evident that self-efficacy plays an important role, as it is related to important constructs such as self-esteem and motivation. The fact that self-efficacy is rooted in cultural differences is also vital to understand because self-efficacy is a malleable construct, and might be enhanced by certain cultural aspects, such as parenting behaviors. In conclusion, self-efficacy is an important issue, and more research is necessary to understand the cultural implications and influences.

## References

- Allchin, A. M., Bradley, S. A., Hjelm, N. A., & Schørring, J. H. (2000). *Gruntvig in international perspective: Studies in the creativity of interaction*. Aarhus: Aarhus University Press.
- Armitage, C. J., Conner, M., Loach, J., & Willetts, D. (1999). Different perceptions of control: Applying an extended theory of planned behavior to legal and illegal drug use. *Basic and Applied Social Psychology, 21* (4), 301-316.
- Bandura, A. (1994). Self-efficacy. In V.S. Ramachaudran (Ed.) *Encyclopedia of Human Behavior*. New York: Academic Press.
- Bandura, Albert (1995). *Self-efficacy in changing societies*. (pp. 149-176). New York, NY, US: Cambridge University Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Beyer, S., & Bowden, E. (1997). Gender differences in self-perception: Convergent evidence from three measures of accuracy and bias. *Personality and Social Psychology, 23*, 157-172.
- Caprara, G., Steca, P., Gerbino, M., Paciello, M., & Vecchio, G. (2006). Looking for adolescents' well-being: Self-efficacy beliefs as determinants of positive thinking and happiness. *Epidemiologia e Psichiatria Social, 15*, 30-43.
- Eaton, M. J., & Dembo, M. H. (1997). Differences in the motivation beliefs of Asian American and non-Asian students. *Journal of Educational Psychology, 89*, 443-440.
- Encyclopedia Britannica Online. <http://www.britannica.com/eb/article-9108744/motivation>.  
Viewed 12/1/07.
- Ereford, B. (1995). Parent autonomy-enhancement and development of self-efficacy. *Psychological Reports, 77*, 1347-1353.
- Fan, C., & Mak, A. S. (1998). Measuring social self-efficacy in a culturally diverse

- student population. *Social Behavior and Personality*, 26, 131-144.
- Griffiths, J. H. (2007). Academic self-efficacy, career self-efficacy, and psychosocial identity development: A comparison of female college students from differing socioeconomic status groups. *Dissertation Abstracts International, A: The humanities and social sciences*, 67, 2892.
- Himmelstrup, P. (Ed.) (1991). *Discover Denmark: On Denmark and the Danes; Past, present, and future*. Copenhagen: The Danish Cultural Institute.
- Hofstede, G. (1980). *Culture's Consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Holm, K., Kremers, S., & De Vries, H. (2003). Why do Danish adolescents take up smoking? *European Journal of Public Health*, 13, 67-74.
- Huitt, W. (2001). Motivation to learn: An overview. *Educational Psychology Interactive*.  
<http://chiron.valdosta.edu/whuitt/col/motivation/motivate.html>. Viewed 12/1/07.
- Imhof, M., Vollmeyer, R., & Beierlein, C. (2007). Computer use and the gender gap: The issue of access, use, motivation, and performance. *Computers in Human Behavior*, 23, 2823-2837.
- Ingoldsby, B., Schvaneveldt, P., Supple, A., & Bush, K. (2004). The relationship between parenting behaviors and adolescent achievement and self-efficacy in Chile and Ecuador. *Marriage and Family Review*, 35, 139-159.
- Kim, B. S. K., & Omizo, M. M. (2005). Asian and European American cultural values, collective self-esteem, acculturative stress, cognitive flexibility, and general self-efficacy among Asian American college students. *Journal of Counseling Psychology*, 52, 412-419.
- Klassen, R. M. (2004). A cross-cultural investigation of the efficacy beliefs of South Asian immigrant and Anglo Canadian nonimmigrant early adolescents.

*Journal of Educational Psychology*, 96, 731-742.

- Klassen, R. M. (2004). Optimism and realism: A review of self-efficacy from a cross-cultural perspective. *International Journal of Psychology*, 39, 205-230.
- Kumar, R., & Lal, R. (2006). The role of self-efficacy and gender differences among adolescents. *Journal of the Indian Academy of Applied Psychology*, 32, 345-350.
- Malpass, J. R., O'Neil, J. F. Jr. (1999). Self-Regulation, Goal Orientation, Self-Efficacy, Worry, and High-Stakes Math Achievement for Mathematically Gifted High School Students. Hocevar, D. *Roeper Review*, 21, 281-288.
- Minggang, W., & Yuan, C. (2004). A review of cross-cultural researchers on the relationship of thinking and language. *Psychological Science*, 27, 431-433.
- Minnaert, A. (2007). *Gifted, but not motivated: A challenge or a threat*. Lecture at the University of Groningen, 16 October, 2007.
- Morris. (2007). The role of the family context in the development of emotion regulation. *Social Development*, 16, 361-388.
- Scholz, U., Gutiérrez-Doña, B., Sud, S., & Schwarzer, R. (2002). Is general self-efficacy a universal construct? Psychometric findings from 25 countries. *European Journal of Psychological Assessment*, 18, No. 3, 242-251.
- Schwarzer, R., Bäßler, J., Kwiatek, P., Schröder, K., & Zhang, J. X. (1997). The assessment of optimistic self-beliefs: Comparison of the German, Spanish, and Chinese versions of the General Self-Efficacy Scale *Applied Psychology: An International Review*, 46 (1), 69-88.
- Schwarzer, R., & Born, A. (1997). Optimistic self-beliefs: Assessment of general perceived self-efficacy in thirteen cultures. *World Psychology*, 3 (1-2), 177-190.
- Schwarzer, R., Born, A., Iwawaki, S., Lee, Y.-M., Saito, E., & Yue, X. (1997). The assessment

of optimistic self-beliefs: Comparison of the Chinese, Indonesian, Japanese and Korean versions the General Self-Efficacy Scale. *Psychologia: An International Journal of Psychology in the Orient*, 40, (1), 1-13.

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy Scale. In J. Weinman, S. Wright, & M. Johnston, (Eds.) *Measures in health psychology: A user's portfolio*.

*Causal and control beliefs* (pp. 35-37). Windsor, UK: Nfer-Nelson.

Schwarzer, R., & Fuchs, R. S. (1996). Self-efficacy and health behaviors. In M. Conner & P. Norman (Eds.) *Predicting health behavior: Research and practice with social cognition models*. Buckingham, UK: Open University Press.

Thomas, R. F. (1990). *Americans in Denmark: Comparisons of the two cultures by writers, artists, and teachers*. Carbondale and Edwardsville: Southern Illinois University Press.

Thomsen, L., Sidnius, J., & Fiske, A. P. (2007). Interpersonal leveling, independence, and self-enhancement: A comparison between Denmark and the US, and a relational practice framework for culture psychology. *European Journal of Social Psychology*, 37, 445-469.

Titma, M., Tuma, N. B., & Roots, A. (2007). Adolescent agency and adult economic success in a transitional society. *International Journal of Psychology*, 42, 102-109.

Weis, L. (2003). *Cross-cultural analysis of Danish and American childcare*. Student Project, Gustavus Adolphus College.

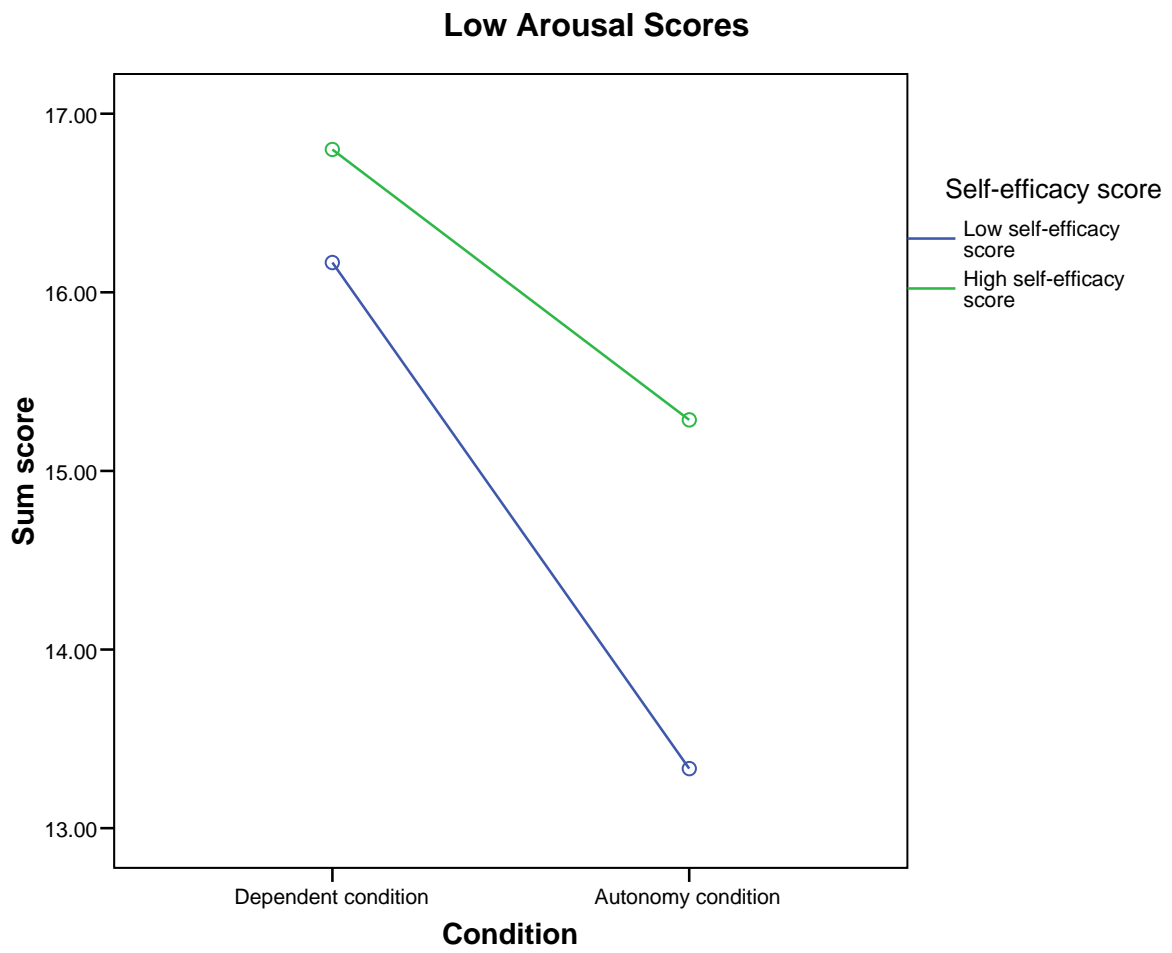
Young, M., & Bradley, M. (1998). Social withdrawal: Self-efficacy, happiness, and popularity in introverted and extroverted adolescents. *Canadian Journal of School Psychology*, 14, 21-35



Figure Captions

*Figure 1.* Low arousal scores of participants with high and low self-efficacy in the autonomous and dependent condition.

Figure 1



## Appendix

### The General Self-Efficacy Scale

Please circle your response according to the scale given.

- |  |                 |   |   |   |                |
|--|-----------------|---|---|---|----------------|
|  | 1               | 2 | 3 | 4 | 5              |
|  | Not at all true |   |   |   | Extremely true |
| 1. I can always manage to solve difficult problems if I try hard enough.                 |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 2. If someone opposes me, I can find the means and ways to get what I want.              |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 3. I am certain that I can accomplish my goals.  |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 4. I am confident that I could deal efficiently with unexpected events.                  |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 5. Thanks to my resourcefulness, I can handle unforeseen situations.                     |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 6. I can solve most problems if I invest the necessary effort.                           |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 7. I can remain clam when facing difficulties because I can rely on my coping abilities. |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 8. When I am confronted with a problem, I can find several solutions.                    |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 9. If I am in trouble, I can think of a good solution.                                   |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |
| 10. I can handle whatever comes my way.  |                 |   |   |   |                |
|  | Not at all true |   |   |   | Extremely true |

## Socioeconomic background questionnaire

(The American participants did not receive the last three questions)

1. What are the last three items you purchased?
2. Are you employed?
3. If you are employed, how many hours per week do you work?
4. How much money do you spend per month on rent?
5. How much money do you spend per month on entertainment purposes?
6. Do you own a car?
7. If so, how often do you drive?
8. How often do you use public transportation?
9. How many television sets does your family own?
10. How many times per month do you go out to eat?
11. How would you rate your economic situation as a whole?
12. Do your parents have the same nationality as you?
13. If not, what is their nationality?
14. Have you lived in Denmark your entire life?

## Parental Skills Questionnaire

1. Promoting social skills	1	2	3	4	5
Not at all important					Extremely important
2. Encouraging physical movement and wellness	1	2	3	4	5
Not at all important					Extremely important
3. Promoting cognitive skills	1	2	3	4	5
Not at all important					Extremely important
4. Encouraging respect and obedience	1	2	3	4	5
Not at all important					Extremely important
5. Promoting independence	1	2	3	4	5
Not at all important					Extremely important
6. Promoting creativity	1	2	3	4	5
Not at all important					Extremely important

7. Encouraging responsibility	1	2	3	4	5
Not at all important					Extremely important
8. Increasing multi-cultural awareness	1	2	3	4	5
Not at all important					Extremely important
9. Encouraging individualism	1	2	3	4	5
Not at all important					Extremely important
10. Encouraging self-esteem	1	2	3	4	5
Not at all important					Extremely important

### Optimism Scale

Directions: Read the description of each situation and vividly imagine it happening to you, even if it's never actually happened. Then read the two reasons for why this situation happened. Choose the cause likelier to apply to you. You may not like the way some of the responses sound, but don't choose what you think you should say or what would sound right to other people; choose the response you'd be likelier to have. Please circle your response.

- You and your spouse (boyfriend/girlfriend) make up after a fight.
  - I forgave him/her.
  - I'm usually forgiving.
- You forget your spouse's (boyfriend/girlfriend's) birthday.
  - I'm not good at remembering birthdays.
  - I was preoccupied with other things.
- You get a flower from a secret admirer.
  - I am attractive to him/her.
  - I am a popular person.
- You run for a community office position and you win.
  - I devote a lot of time and energy to campaigning.
  - I work very hard at everything I do.
- You miss an important engagement
  - Sometimes my memory fails me.
  - I sometimes forget to check my appointment book.
- You host a successful dinner
  - I was particularly charming that night.
  - I am a good host.

7. You owe the library ten dollars for an overdue book.  
 A. When I am really involved in what I am reading, I often forget when it's due.  
 B. I was so involved in writing the report that I forgot to return the book.
8. Your stocks make you a lot of money.  
 A. My broker decided to take a chance on something new.  
 B. My broker is a top notch investor.
9. You win an athletic contest.  
 A. I was feeling unbeatable.  
 B. I train hard.
10. You fail an important examination.  
 A. I wasn't as smart as the other people taking the exam.  
 B. I didn't prepare for it well.

#### Autonomous Scenarios

Directions: Please read the following scenarios and answer the questions based on your initial reaction towards them.

1. Imagine that you are a student teacher. You are observing a classroom of kindergarteners. There is a problem because the children cannot decide who should use the dog puzzle next. Instead of enforcing a rule, the teacher asks the students to sit down and come up with a rule that will make everyone happy. The students decide that they will make a schedule of which children can use the dog puzzle on certain days. Please answer the following questions about your reaction to this situation.

1. To what extent did you experience the following emotions in reaction to this situation? Please circle your response.

a. frightened

1	2	3	4	5
Did not experience at all			Strongly experienced	

b. interested

1	2	3	4	5
Did not experience at all			Strongly experienced	

c. surprised

1	2	3	4	5
Did not experience at all			Strongly experienced	

d. calm

1	2	3	4	5
Did not experience at all			Strongly experienced	

e. sad

1	2	3	4	5
Did not experience at all				Strongly experienced

f. at ease

1	2	3	4	5
Did not experience at all				Strongly experienced

g. afraid

1	2	3	4	5
Did not experience at all				Strongly experienced

h. nervous

1	2	3	4	5
Did not experience at all				Strongly experienced

2. What is your view of the appropriateness of this situation? Circle your response.

1	2	3	4	5
Extremely inappropriate				Extremely appropriate

To what extent do you agree with the following statements? Circle your response.

3. This does not seem appropriate for five and six-year-old children. The teacher should enforce the rules.

1	2	3	4	5
Strongly disagree				Strongly agree

4. This is not something I would do if I were a teacher, but it seems like it might work.

1	2	3	4	5
Strongly disagree				Strongly agree

5. This solution is reasonable and should be used in schools because it seems to give the students a sense of responsibility and independence.

1	2	3	4	5
Strongly disagree				Strongly agree

2. Imagine that you are babysitting or nannying for a four-year-old girl and a 14-year-old boy. The girl loves to do arts and crafts, so you bring out the huge box of coloring books, markers, crayons, glue, and everything else she might need. She is coloring a picture, and you go in the other room for a couple minutes to make some dinner after her older brother volunteers to watch her while she's playing with the arts and crafts. When you get back in the room, you see that she has picked up an adult-sized scissors and is cutting out her picture. The older brother is smiling at her as she cuts around the corners of the picture. Please answer the following questions about your reaction to this situation.

1. To what extent did you experience the following emotions in reaction to this situation? Please circle your response.



a. frightened  
 1                      2                      3                      4                      5  
 Did not experience at all                      Strongly experienced

b. interested  
 1                      2                      3                      4                      5  
 Did not experience at all                      Strongly experienced

c. surprised  
 1                      2                      3                      4                      5  
 Did not experience at all                      Strongly experienced

d. calm  
 1                      2                      3                      4                      5  
 Did not experience at all                      Strongly experienced

e. sad  
 1                      2                      3                      4                      5  
 Did not experience at all                      Strongly experienced

f. at ease  
 1                      2                      3                      4                      5  
 Did not experience at all                      Strongly experienced

g. afraid  
 1                      2                      3                      4                      5  
 Did not experience at all                      Strongly experienced

h. nervous  
 1                      2                      3                      4                      5  
 Did not experience at all                      Strongly experienced

2. What is your view of the appropriateness of this situation? Circle your response.  
 1                      2                      3                      4                      5  
 Extremely inappropriate                      Extremely appropriate

To what extent do you agree with the following statements? Circle your response.

3. I would immediately grab the scissors out of her hand.  
 1                      2                      3                      4                      5  
 Strongly disagree                      Strongly agree

4. I would exchange her scissors with smaller, safer scissors for children.  
 1                      2                      3                      4                      5  
 Strongly disagree                      Strongly agree

5. I would comment that she is doing a wonderful job with her art project.  
 1                      2                      3                      4                      5  
 Strongly disagree                      Strongly agree









Directions: Please read the following scenarios and answer the questions based on your initial reaction towards them.

1. Imagine you are a student teacher. You are observing a classroom of kindergarteners. There is a problem because the children cannot decide who should use the dog puzzle next. The teacher decides that there will be a rule that each student will be given a certain time that they are allowed to use the dog puzzle. The students complain about the rule, but the teacher explains to them that it is best to share, and this way, everyone can have a turn. Please answer the following questions about your reaction to this situation.

1. To what extent did you experience the following emotions in reaction to this situation? Please circle your response.

1. To what extent did you experience the following emotions in reaction to this situation? Please circle your response.

a. frightened

1	2	3	4	5
Did not experience at all				Strongly experienced

b. interested

1	2	3	4	5
Did not experience at all				Strongly experienced

c. surprised

1	2	3	4	5
Did not experience at all				Strongly experienced

d. calm

1	2	3	4	5
Did not experience at all				Strongly experienced

e. sad

1	2	3	4	5
Did not experience at all				Strongly experienced

f. at ease

1	2	3	4	5
Did not experience at all				Strongly experienced

g. afraid

1	2	3	4	5
Did not experience at all				Strongly experienced

h. nervous

1	2	3	4	5
Did not experience at all				Strongly experienced

2. What is your view of the appropriateness of this situation? Circle your response.

1	2	3	4	5
---	---	---	---	---



Did not experience at all Strongly experienced

f. at ease

1 2 3 4 5  
 Did not experience at all Strongly experienced

g. afraid

1 2 3 4 5  
 Did not experience at all Strongly experienced

h. nervous

1 2 3 4 5  
 Did not experience at all Strongly experienced

2. What is your view of the appropriateness of this situation? Circle your response.

1 2 3 4 5  
 Extremely inappropriate Extremely appropriate

To what extent do you agree with the following statements? Circle your response.

3. I would thank the older brother for helping his sister with cutting out her picture.

1 2 3 4 5  
 Strongly disagree Strongly agree

4. I would explain to the younger sister that we should be careful with using scissors, but that she might be able to use them with an adult's help.

1 2 3 4 5  
 Strongly disagree Strongly agree

5. Give the scissors back to the girl and tell her that she can use them since she is a very capable and smart girl.

1 2 3 4 5  
 Strongly disagree Strongly agree

3. Imagine your child is about to go into 9<sup>th</sup> grade. You are considering sending your child to a special private school. The school is very structured, and all of the classes are chosen for the students. However, there are many positive points about the school as well, because it seems to prepare students well for the future, at least from the standpoint of having a good GPA. Most of the students get into good colleges. Please answer the following questions about your reaction to this situation.

1. To what extent did you experience the following emotions in reaction to this situation? Please circle your response.

a. frightened

1 2 3 4 5  
 Did not experience at all Strongly experienced





4. Imagine you work at a school for children with special needs. You work during the afternoon shift. When you come into work, the children are playing in the music room, and the other teachers are observing the children closely. The children started to play loudly, and right away, the teachers told them to quiet down in unison. When you come in, your co-workers hardly seem to notice because they don't take their eyes off the children. Please answer the following questions about your reaction to this situation.

1. To what extent did you experience the following emotions in reaction to this situation? Please circle your response.

a. frightened

1                      2                      3                      4                      5  
Did not experience at all                      Strongly experienced

b. interested

1                      2                      3                      4                      5  
Did not experience at all                      Strongly experienced

c. surprised

1                      2                      3                      4                      5  
Did not experience at all                      Strongly experienced

d. calm

1                      2                      3                      4                      5  
Did not experience at all                      Strongly experienced

e. sad

1                      2                      3                      4                      5  
Did not experience at all                      Strongly experienced

f. at ease

1                      2                      3                      4                      5  
Did not experience at all                      Strongly experienced

g. afraid

1                      2                      3                      4                      5  
Did not experience at all                      Strongly experienced

h. nervous

1                      2                      3                      4                      5  
Did not experience at all                      Strongly experienced

2. What is your view of the appropriateness of this situation? Circle your response.

1                      2                      3                      4                      5  
Extremely inappropriate                      Extremely appropriate

To what extent do you agree with the following statements? Circle your response.

3. I would join my co-workers to help them watch the children.





