

The Role of Causal Attribution and Self-Focused Attention for Shyness

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Linköping Studies in Arts and Science No. 356
Linköping Studies in Education and Psychology Dissertation No. 108
Linköpings universitet, Department of Behavioural Sciences
Linköping 2006

Linköping Studies in Arts and Science • No. 356

At the Faculty of Arts and Science at Linköpings universitet, research and doctoral studies are carried out within broad problem areas. Research is organized in interdisciplinary research environments and doctoral studies mainly in graduate schools. Jointly, they publish the series Linköping Studies in Arts and Science. This thesis comes from the Linköping Studies in Education and Psychology Dissertation at the Department of Behavioural Sciences

Distributed by:
Department of Behavioural Sciences
Linköpings universitet
S-581 83 Linköping
Sweden

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Edition 1:1
ISBN 91-85523-73-9
ISSN 0282-9800
ISSN 1102-7517

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Department of Behavioural Sciences 2006

Printed by LiU-Tryck, Linköping, 2006

ACKNOWLEDGEMENTS

During this roller-coaster voyage through the shyness research jungle I have received invaluable help and support from a lot of people. I am indebted to my main supervisor Erik Lindberg. You have always believed in me, and very importantly, also at times when I have not myself. Despite the geographical distance you have managed to encourage and professionally guide me since day one. I would never have started or completed this thesis without you! I am also in deep gratitude to my secondary supervisor Ann Frodi. Your knowledge about almost everything is impressive and your never-ending, incredible optimism, positive reinforcement and creative ideas have been sources of inspiration and emotional and professional support. Thank you so much for being there when I needed it the most! Also, I am grateful for the insightful comments from Margaret Kerr, Örebro University.

There are also many colleagues and friends at Linköping University and other places who in different ways have supported me. Stefan Gustafson, thanks for listening and being there and for always offering help and support! If it was not for you, I would probably have finished this thing a long time ago... ;-) Also, I appreciate your sensible comments on an earlier version of this thesis as well as your assistance in categorizing some of the data. Ali Osman, I cherish our long talks, your sense of humor, and foremost your friendship. Thank you for being there for me every step of the way! Sam Paldanius, our "pseudogological" discussions have been like small waterholes. I am grateful for your friendship and your unique way of turning everything 360 degrees. Also, thank you for allowing me the opportunity to work with you; I have already learned so many things. Ulrik Olofsson, you are such a creative thinker! Thanks for allowing me and others to be inspired! Anneli Sepa, you have always taken time off for me – thank you for your positive view on life and your friendship. Gisela Eckert, I am so grateful that you collected parts of the data for me, but above all, I appreciate your emotional support, the talks we have and that you included me in your current research-project; you are truly a life-saver! Henrik Danielsson, I am glad for the times you have dragged me out on different "suspicious" activities like cabbage-beheading.

Thanks for cheering me up and for proofreading one of my papers. Ann-Christin Cederborg, it has been a joy to be a part of the birth of our research group. I am grateful for your encouragement! Björn Lyxell, I truly value your support. Jerker Rönnerberg, you are an excellent role model and it means a lot to me that you take a genuine interest in my future and in my career. Erland Svensson, I am thankful that you showed me how to use LISREL. Your knowledge and willingness to share it is extremely generous. Ragnar Hedström, thank you for always showing an interest in my progress and for planning future research-projects with me, even though I know that you have plenty of things on your own plate (talking about attribution, we will have better luck this time!). Annika Rannström, it would have taken me a much longer time to complete this thesis had you not believed in me and in this project; I am touched by your faith in my abilities! Lars-Göran Permer, my meeting with psychology as guided by you was surely indirectly associated with the writings of this thesis.

I would also like to take the opportunity to thank all the women and men who participated in the studies included in this thesis. Without your time, effort and interest, this thesis would not exist!

My friends, particularly Åse Johansson and Johan Lindeman, Björn Hovenäs, Marie Elfving and Henrik Johansson, Monica and Stefan Svallhed – although you have seen a little less of me during the past few years, you have given me well-needed breaks and reminded me about life outside of these walls... I value your friendship so much!

Finally, my warmest and most heart-felt thank you goes to my parents, Gudrun and Lars, my "big", little sister Josefine, my boyfriend Teddy, and to my grandmother Gulli – I could never have had a better family! You have supported, worried about and been happy for me as well as tried to understand what it is that I do (it goes without saying that "the person who is reading this is now fast asleep") – and ultimately believed in me no matter what, unconditionally. Without you, I have nothing and I would be nothing! I love you so much.

And I think about those who I cannot thank. My grandmother Svea, my grandfathers Sven and David. You were all a part of the makings of this thesis since you were all a part of the makings of me. I know you would have been proud of me.

Charlotte Alm
Linköping, April 2006

CONTENTS

ACKNOWLEDGEMENTS.....	3
CONTENTS.....	5
PREFACE.....	7
GENERAL OUTLINE	9
SHYNESS	11
EARLY ACCOUNTS OF SHYNESS	11
WHAT IS SHYNESS?	12
WHAT IS SHYNESS NOT, AND WHY NOT?	14
Social anxiety	15
Inhibition.....	15
Social phobia.....	16
SHYNESS AND CULTURE.....	18
SHYNESS AND DEVELOPMENT	19
SHYNESS AND GENDER.....	20
ATTRIBUTION	23
EARLY ACCOUNTS OF SOCIAL COGNITION	23
WHAT IS SOCIAL COGNITION?.....	24
ATTRIBUTION	25
ATTRIBUTIONAL BIASES.....	28
Self-Other Difference.....	29
ATTRIBUTION AND CULTURE.....	31
ATTRIBUTION AND DEVELOPMENT	32
ATTRIBUTION AND GENDER	33
SHY AND NON-SHY INDIVIDUALS' ATTRIBUTIONAL PATTERNS	35
EXPLORING DIFFERENCES BETWEEN SHY AND NON-SHY INDIVIDUALS	35
EXPLAINING DIFFERENCES BETWEEN SHY AND NON-SHY INDIVIDUALS	39

Self-focused attention.....	39
Self-focused attention and shyness	41
AIMS OF THE THESIS.....	45
SUMMARY OF STUDIES I-IV	47
STUDY I	47
Purpose.....	47
Method	47
Results and Discussion	48
STUDY II.....	49
Purposes	49
Method	49
Results and Discussion	50
STUDY III.....	52
Purposes	52
Method	52
Results and Discussion	53
STUDY IV.....	55
Purpose.....	55
Method	56
Results and Discussion	57
DISCUSSION	61
REFERENCES	69

PREFACE

This thesis is based on the following four studies, which will be referred to in the text by their Roman numerals.

- (I) Alm, C., & Lindberg, E. (1999). Attributions of shyness–resembling behaviors by shy and non–shy individuals. *Personality and Individual Differences*, 27, 575–585.
- (II) Alm, C. (2005). *The Role of Shyness and Self–Focused Attention for Attribution of Reactions in Social Situations to Internal and External Causes*. Manuscript submitted for publication.
- (III) Alm, C. (2006). *The Role of Shyness and Behavioral Inhibition for Attribution of Emotional Reactions and Ratings of Degree of Internality*. Manuscript submitted for publication.
- (IV) Alm, C., & Frodi, A. (2006). *Tales from the shy: Interviews with self– and peer rated, shy and non–shy individuals concerning their thoughts, emotions, and behaviors in social situations*. Manuscript submitted for publication.

GENERAL OUTLINE

This thesis is organized into three parts. Part one consists of a theoretical and empirical background to the thesis. In this part historical accounts of shyness and attribution, respectively, are given. Some empirical findings related to gender and cultural differences within these areas are described. An account of developmental issues in shyness and attribution, is also given here. This part further consists of a description of past research on shy and non-shy individuals' attributional patterns regarding a number of different situations, from successes and failures, to emotional and physiological reactions in social situations. A brief summary of the most important findings in this area as well as the research questions addressed in the thesis are given here. Part two consists of a summary of the studies included in the thesis, as well as a general discussion of the current results. Finally, in part three, the four studies that constitute this thesis are attached.

SHYNESS

Early accounts of shyness

Since the end of the nineteenth century, numerous articles and books on the subject of shyness have been published. The term 'shyness' was scientifically discussed as early as 1872 when Darwin (1872/1999, p. 327, brackets inserted by the present author) wrote: "this odd state of mind, often called shamefacedness, or false shame, or *mauvaise bonté*, appears to be one of the most efficient of all the causes of blushing. Shyness is, indeed, chiefly recognized by the face reddening, by the eyes being averted or cast down, and by awkward, nervous movements of the body [...]. Shyness depend[s] on sensitiveness to the opinion, whether good or bad, of others, more specifically with respect to external appearance". Darwin (1872/1999) concluded that because a shy individual has a low degree of self-confidence and a high degree of self-consciousness, he or she would naturally fear the presence of strangers.

In the 1930's, J. P. Guilford and R. B. Guilford (1936, 1939) reported results from several factor analyses conducted on the responses to around 30 questionnaire items in order to capture the basic dimensions of personality. One of these dimensions was termed 'Shyness and Seclusiveness' or the S factor. It should be noted that among the items that loaded on the S factors, there were also items pertaining to seclusion, or privateness. Other factors were the depression factor (D factor), as well as a "thinking" factor, or "thinking introversion" (T factor). J. P. Guilford and R. B. Guilford (1939) demonstrated moderate correlations between the S factor and the D factor ($r = .49$), and between the S factor and the T factor ($r = .53$). The authors concluded that "the use of the term 'introvert' as we have indicated [...] represent[s] the person who is simultaneously on the side of the shy, depressed, and thinker, for the dimensions S, D, and T" (p. 34, brackets inserted by the present author). Thus, 'shyness', as defined in this study and in this era, is confounded with an

unwillingness to participate in social situations, which causes the individual to withdraw from such situations, rather than an inhibition.

G. Watson (1930) demonstrated that about 50% of self-proclaimed unhappy people also rated themselves as shy, compared to about 20% of self-proclaimed happy people. Shyness has also been associated with being prematurely born (Shirley, 1939). In a study of a group of boys who were later diagnosed with schizophrenia, Frazee (1953) found that almost twice as many of these boys, compared to a control group of boys who were never diagnosed with schizophrenia, were "shy, listless and lacked interest". Interesting to note here is that even though Frazee (1953) did not offer a definition of shyness, 'shyness' and 'seclusiveness' were not clumped together in the same category, and thus, implicitly, she introduced a distinction between these two phenomena, not seen in earlier publications regarding shyness (e.g., J. P. Guilford & R. B. Guilford, 1939).

Even though much of the research and the writings from the first half of the twentieth century seemed to suggest that shyness is foremost correlated with or gives rise to various difficulties and problems, there are also a few positive connotations of the word 'shyness'. For instance, Litwinski (1950) pointed out that shyness is multifaceted, involving both negative and positive aspects, and furthermore, possible to "cure". Also, Street (1942) found that gains in IQ points for exceptional children seemed to be related to shyness. There are also numerous philosophers and authors of fiction, such as Jean Jacques Rousseau and Compton Leith, who claimed to be shy and whose work might have benefited in one way or another from their shyness (Wright, 1930). Wright even argued that "the world would be a much poorer place if we had not the writings of men and women who carried the load of this disability" (p. 32). However, one needs to take into account the fact that the term 'shyness' as used in the early nineteenth hundreds, may not at all correspond to the term as used today.

What is Shyness?

Some people feel very shy when they enter a room full of strangers, and specifically if the strangers are vaguely familiar (Van der Molen, 1990) or more attractive or intelligent than themselves (Mahone,

Bruch, & Heimberg, 1993). For some individuals this implies that they will act in an inhibited way, for example, keep people at a distance (Zimbardo & Radl, 1982), be quiet or speak less often (Pilkonis, 1977b), and experience heart palpitations and nervous sweating (Ishiyama, 1984). Often, these behaviors are accompanied by cognitive and emotional symptoms of shyness, such as being worried about what others will think about them (Zimbardo, 1977), not knowing how to behave (Ishiyama, 1984), thinking about negative aspects of past events and being worried that these will repeat themselves (Edwards, Rapee, & Franklin, 2003). It is not only the situation of being among strangers that will set off feelings of shyness; it could be a situation where there is only one other person present, such as perhaps going on a date, or having a meeting with the boss, and other situations, such as presenting a paper in front of the class, going to parties where there are both strangers and acquaintances, or merely thinking about doing any of the above (Zimbardo, 1977). One common feature of these types of situations is that they involve at least some other person, or the thought of at least another person. Shyness could therefore be defined as a phenomenon involving behavioral, emotional and cognitive symptoms (Cheek & Melchior, 1990), which occurs in the presence of, or at the thought of having to meet, other people. There is, however, no clear consensus among shyness-researchers regarding the defining features of shyness. Leary (1983b) listed three definitions typically found in the literature. One of these is the definition described above, and which, for instance, Leary (1983b) found most useful. The second definition proposes that shyness is a form of social anxiety (Zimbardo, 1977). The third definition states that shyness constitutes awkward public behaviors, such as failures to respond to other people (Pilkonis, 1977a).

All people do not experience shyness and all shy people do not stay shy. Some individuals are shy during specific periods of their lives, such as puberty or early childhood, whereas others either turn shy when they are older or will never be shy at all. Furthermore, shy individuals need not act or feel shy in all kinds of social situations, depending on, for instance, past experiences, and current level of self-confidence. However, as many as 80 percent of the adult population stated that they have been shy at some point or another during their lives, whereas about 40 percent stated that they were presently shy,

according to several surveys among North Americans (Pilkonis, 1977a; Zimbardo, 1977).

There might be some concern about using the term ‘shyness’ in research since the term is used in everyday language as well which might produce different connotations for different people. However, some research indicates that the general meaning that people in ordinary language imply when talking about shyness does not diverge to a high degree from the scientific meaning of the term. Ishiyama (1986) demonstrated that shy and non-shy individuals defined shyness in a highly similar way. For instance, there were no significant differences between the proportion of shy and non-shy individuals who stated that shyness involved physiological and non-verbal reactions such as the tendency to blush or to avoid eye contact. The two groups of individuals did differ concerning for instance sweating nervously or stammering, although the proportion of shy individuals who stated that such reactions constituted shyness varied between 25 and 42 percent. Also, Cheek and Watson (1989) found that 84 percent of shy females who took part in their study and who were asked to describe how they knew that they were shy stated cognitive, physiological or somatic and behavioral aspects. In other words, the three-component definition of shyness (e.g., Cheek & Melchior, 1990) seemed to be consistent with the majority of these participants’ own experiences of what constitutes shyness.

What is shyness not, and why not?

Some of the more common terms used in the periphery of, or in direct association with, research conducted on shyness are social anxiety, inhibition and social phobia. Even if there are no clear-cut demarcation lines between any of these terms, which contributes to the sometimes confusing theoretical discussions of them, one of the main reasons for including this passage is to try to clear up some of the theoretical and empirical confusion often stemming from a misoperationalization of shyness in research. The purpose of this passage is thus to clarify in what way these phenomena differ from, and to what extent they are similar or even identical to, shyness.

When comparing the various more or less related terms, shyness, social anxiety, social phobia and inhibition, the term 'shyness', as used by Darwin (1872/1999), seems to have been used prior to the other terms. Almost one hundred years later, the term 'social phobia' was introduced in the scientific literature (e.g., Lader, 1967)

Social anxiety

One straightforward way of differentiating between shyness and social anxiety is to state that shyness involves behavioral, cognitive and emotional symptoms (Cheek & Melchior, 1990), whereas social anxiety involves only two of these three components, namely cognitive and emotional symptoms (Leary, 1983a, 1983b). Schlenker and Leary (1982, p. 642) argued that social anxiety results "from the prospect of presence of interpersonal evaluation in real or imagined social settings". This definition of social anxiety indicates that some of the research results concerning social anxiety may also be applicable to shyness, and vice versa.

Inhibition

Kerr, Lambert, Stattin and Klackenberg-Larsson (1994, pp. 139–140) asserted that whereas "shyness might best describe reactions to social novelty (strangers) ... inhibition might best describe reactions to novelty of any sort, social or otherwise". This definition coincides with that of behavioral inhibition proposed by Reznick, Hegeman, Kaufman, Woods and Jacobs (1992, p. 301), that behavioral inhibition is "a temperamentally based disposition of children to react consistently to unfamiliar events, both social and nonsocial, with initial restraints". Thus, inhibition or behavioral inhibition involves fearful or reluctant reactions towards unfamiliar people or objects, equaling phenomena such as childhood fear or wariness of strangers or novel objects, normally appearing at eight or nine months of age (e.g., Ainsworth & Bell, 1970; Ainsworth, Bell, & Stayton, 1972; Morgan & Ricciuti, 1969; Schaffer, 1966; Sroufe, 1977; see also Kobak, 1999). Childhood fear is a developmental stage in infant attachment, which

does not automatically refer to fearful reactions to social novelty only. However, since this thesis is concerned with adolescents and adults behavioral inhibition is defined as constituting readily observable shyness-related behaviors (e.g., Leary, Atherton, Hill, & Hur, 1986), rather than as fearful reactions to novelty (e.g., Reznick et al., 1992). The latter term is appropriate when conducting research on infants and small children. Thus, the term inhibition will be used instead of behavioral inhibition when discussing fearful reactions to, including, but not limited to, social events.

Social phobia

According to the Quick reference to the Diagnostic Criteria from DSM-IV-TR (2000), social phobia is an anxiety disorder characterized by fear of social situations in which the individual is exposed to strangers or risks being judged. Social phobia often results in panic attacks, and/or avoidance of the feared situation, alternatively a high degree of anxiety while putting up with the situation. Further, the diagnostic criteria (2000) state that the phobia to a considerable degree should have an impact on the individuals' normal daily life. Like any other psychological disorder, the symptoms should not appear in conjunction with any type of somatic or physiologic or any other psychological disorder.

In the mid 60's scientific journals started to publish research conducted on clinical populations, including individuals diagnosed with social phobia (see, for example, the work presented by Lader, 1967). In an article published in 1970, Marks distinguished phobias involving social situations from some other types of phobias. However, Marks (1970) also noticed that social phobia was difficult to distinguish from other types of phobias, such as agoraphobia. Since then, at least two sides of the issue on how shyness is related to social phobia have been formulated.

One of these sides contends that shyness and social phobia are, both theoretically and empirically, two separate phenomena. Carducci (1999, p. 6) argued that "shyness is not listed in the *Diagnostic and Statistical Manual of Mental Disorders IV* (which mental health professionals use when diagnosing their patients) because it's not a

mental illness, merely a normal facet of personality”. However, empirical findings do not support this view. Rather, they usually demonstrate an overlap concerning some of the reactions experienced by shy individuals and those experienced by individuals with social phobia, such as heightened autonomic arousal experienced in various social situations (e.g., Beidel, Turner, & Dancu, 1985) as well as a lack in social skills, for instance difficulties expressing themselves (Zimbardo & Radl, 1982), and fear of negative evaluation (Heimberg, Hope, Dodge, & Becker, 1990; Herbert, Hope, & Bellack, 1992). Nonetheless, the prevalence of individuals experiencing shyness in the population far exceeds the prevalence of individuals experiencing social phobia. Zimbardo (1977), for example, reported that 40% experience shyness, whereas Furmark et al. (1999) reported that 15.6% of the adult population in both rural and urban areas in Sweden suffer from social phobia.

Heiser, Turner and Beidel (2003) reported a higher prevalence of social phobia among shy individuals than among non-shy ones (17.7 and 2.9%, respectively). Some researchers propose that social phobia is an extreme form of shyness, such that when the symptoms of shyness become more extreme it should be termed generalized social phobia rather than shyness. Chavira, Stein and Malcarne (2002) showed that a larger proportion of highly shy individuals, compared to moderately shy individuals, could also be diagnosed with generalized social phobia (but not specific social phobia) as well as major depressive disorders and avoidant personality disorders. Comparing shy individuals who were diagnosed with social phobia with shy individuals without this diagnosis, the results showed that the former individuals were more impaired regarding work or school and social functioning. Finally, shy individuals with a major depression diagnosis were more likely also to be diagnosed with social phobia than shy individuals without a major depression diagnosis. In sum, the results of these studies support the hypothesis that extreme shyness is associated with a higher likelihood of developing social phobia. However, Heiser et al. (2003, p. 212) reported that scores on a shyness questionnaire explained merely 22% percent of the variance in social phobia, indicating “that a positive relationship exists between severity of shyness and social phobia, but those with social phobia cannot simply be characterized as extremely shy”. Heiser et al. (2003) concluded that social phobia is a much more narrow phenomenon compared to

shyness. Furthermore, these results suggested that shyness might be associated with general psychopathology rather than specifically with social phobia.

Shyness and culture

The connotation of 'shyness' and the experience of it may be very different depending on the cultural context. For instance, parents and teachers in Thailand rated shyness, among other problems, in 9-year-old children as less serious and less worrisome compared to parents and teachers in the United States (Weisz, Suwanlert, Chaiyasit, Weiss, & Jackson, 1991). Furthermore, shyness was found to correlate positively with peer acceptance in a sample of Chinese children of the ages 8 through 10, whereas in a sample of Canadian children of the same ages shyness correlated negatively with peer acceptance (Chen, Rubin, & Sun, 1992). It is possible that in a Western society, such as the United States, shyness is regarded as something negative since the cultures in this part of the world might value social competence, the ability to express feelings and opinions to friends, and others, to stand up for opinions even in the company of people with a higher level of expertise and of higher social rank, and, in some situations, the ability to act and speak in front of an audience. Furthermore, in Western societies it may be common practice for both males and females to find their own partner, and thus, the ability to ask someone out on a date, being able to carry on a conversation on that date, to attract the interest of the other person, and to either continue long-term dating or ending a date, is highly valued. In other societies, for instance in some Southeast Asian countries, shyness might be considered a virtue, an ability to control oneself in front of others. One of the most important aspects of socializing may be the ability to respect the social rank of others. Therefore, shyness, or rather the suppression or inhibition of behaviors, may be highly valued. Previous research shows that adolescents in Thailand to a higher degree exhibit shyness and fearfulness compared to adolescents in the United States (Weisz et al., 1993).

There are also studies that show a higher degree of self-reported shyness among East Asian than among European-heritage students, 68

and 44%, respectively (Paulhus, Duncan, & Yik, 2002). When comparing American individuals with people in the Middle Eastern countries, such as Israel, the latter tend to be less self-conscious and spend less time in introspection. About 30% of the Israelis, compared to between 60 and about 80% of the Americans, mention self-consciousness and being evaluated by other people as part of the experience of shyness (Pines & Zimbardo, 1978). Even though these studies demonstrate cross-cultural differences, there are results from previous studies that indicate certain similarities as well. Jackson, Flaherty and Kosuth (2000) found that, for example, self-esteem and sensitivity to rejection, predict degree of shyness in both a sample of Japanese female students and a sample of female students born in the United States.

When comparing Swedish and American samples on various aspects of shyness, there seem to be some differences. For example, Swedish 5–11 year old children showed more apprehension about communicating than did American children of the same ages, and according to the authors of this study, apprehension can result in shyness, timidity or reticence (A. K. Watson, Monroe, & Atterstrom, 1984). However, Jackson et al. (2000) did not find any significant differences between a sample of female Japanese students and a sample of female American students concerning degree of shyness.

Shyness and development

Kagan, Reznick and Snidman (1988) found that extremely shy and inhibited children between 1.5 and 2.5 years of age remained extremely inhibited when they turned 7 years, whereas extremely uninhibited or social children at the ages of 1.5 and 2.5 years remained extremely uninhibited when they turned 7 years. This was only the case when scrutinizing the extremely inhibited or uninhibited children from a sample 400. Broberg, Lamb and Hwang (1990) found that inhibition in sixteen-month-old Swedish infants was fairly stable up to forty months of age. Bengtsgård and Bohlin (2001) demonstrated that shyness was highly stable between the ages of 7 and 9 years in self selected groups of children. Further, children high in shyness exhibited more socio-emotional problems, such as having difficulties

establishing peer–relationships, compared to children low in shyness. Finally, Asendorpf (1990) found that inhibition towards strangers in an unselected sample of 3– and 4–year–old children was fairly stable between the ages of 4 and 7 years. In another Swedish sample, Kerr et al. (1994) found similar results from the ages 21 months to 6 years when comparing extremely inhibited with extremely uninhibited children. However, across a longer perspective, from the age 6 to the age 16 years, the stable predictability of inhibition in the extreme sample decreased, and interestingly enough, only extremely inhibited females exhibited stability over the course of time.

Shyness and gender

Hermann and Betz (2004) showed that American men rated themselves as significantly more shy than did American women. Also, Pilkonis (1977a) found that a higher percentage of men than women labeled themselves shy (46.4 vs. 33.0 %, respectively). Other studies suggest that there are no major differences between males and females regarding either degree of shyness or prevalence of shy vs. non–shy individuals. Hamer and Bruch (1994) showed no significant relationship between shyness and gender. In a study of the prevalence of social phobia in a large sample of college students, the distribution of males and females in subsamples of highly and moderately shy individuals did not significantly differ (Chavira et al., 2002). Also, when conducting a search for the term 'shyness' in the database PsycINFO (in September 2004), a total of 422 studies conducted on human participants over the age of 18 years were found. Of these, 144 studies (34%) were conducted on only male participants whereas 155 studies (37%) were conducted on only female participants. Thus, there seems to be an about equal number of studies conducted on males and females.

There are, however, numerous studies that show differences between male and female shy and non–shy individuals regarding long–term effects of childhood shyness. Kerr, Lambert and Bem (1996) demonstrated that 35–year–old women, rated as shy at the ages of 8, 9 and 10 years, had a lower educational–level compared to non–shy females of the same age (0 vs. 44%, respectively, had earned a

university degree). This result held even though socioeconomic status and intelligence had been statistically controlled for. Further, 35-year-old men, rated as shy at the ages of 8, 9 and 10 years, were older when they married and had children, compared to their non-shy counterparts. These results replicated the findings obtained by Caspi, Elder and Bem (1988) in a sample of American participants. American men, who were rated as shy between the age 10 and 12 years, were significantly older than their non-shy counterparts when they married (25.5 vs. 22.5 years), had their first child (28.2 vs. 24.1 years) and entered a stable career (28.2 vs. 25.3 years).

In a study by Scealy, Phillips and Stevenson (2002) shy individuals, particularly males, were found to be more likely to use the Internet for leisure or recreation information searches, such as downloading music or playing video games, compared to their non-shy counterparts. The authors suggest that shy males may not have as many options as shy females, and further that shy individuals might "feel more comfortable finding information in a format that does not require social interaction or social skills" (p. 513).

Kerr et al. (1994) suggested that certain personality traits might be more or less gender-appropriate, such that stability over time in one trait may be due to cultural and environmental expectations regarding what is appropriate behavior for women compared to men, and vice versa. Kerr et al. (1994) proposed that this may be true for inhibition, since their data showed that extremely inhibited females exhibited stability from 21 months to 16 years of age, which was not the case for equally inhibited males or extremely uninhibited females and males. Williams and Best (1982) did find that university students in 19 of 28 countries generally agreed that 'shyness' was a description that was more frequently associated with females than men in their respective countries (e.g., Brazil, Canada, England, Germany, India, and South Africa). In another study, 6-year-old children's ratings of shyness in their peers correlated with their teachers' judgment of the children's degree of anxiety-withdrawal, however, this was true only for boys (Bowen, Vitaro, Kerr, & Pelletier, 1995). Bowen et al. suggested that shyness in girls of this age is much more common than shyness in boys of the same age, which makes shy boys easier to pick out, since they are more noticeable. Taken together, these results indicate that shyness might be regarded as a sex-trait stereotype.

ATTRIBUTION

Early accounts of social cognition

Social cognition derives from both behavioristic and cognitive perspectives on psychology. Early behavioristic perspectives were largely influenced by the notion of the formation of an association between stimuli and response by means of punishments or rewards (Thorndike, 1911) or the frequency with which the pairings of stimulus–response occurred (J. B. Watson, 1913). Empirical findings reported in the following decades did, however, open up for the possibility that newly acquired associations may not only be the result of rewards, punishments or mere frequency. Rather, associations may form between reflexes and previously neutral stimuli (Pavlov, 1926/1927), and between the exhibition of behaviors and the consequences of these behaviors (for example, positive reinforcement) (Skinner, 1935, 1937).

A behavioristic perspective does, however, not take into account the cognitive processes involved in development, particularly social development, such as the impact of beliefs and desires on behaviors. Beginning in the early 1940's, theories of social learning and explanations of people's social behaviors were formulated and published (e.g., N. E. Miller & Dollard, 1941/1964; Rotter, 1954). Bandura and Walters (1963) argued that these social learning theories did not adequately account for newly acquired social behaviors as well as observational learning that could not be explained in terms of instrumental conditioning. This publication by Bandura and Walters (1963) is one of the earliest contributions to the social cognitive perspective on social learning theories, and it included an account of observational learning with a particular focus on vicarious reinforcement. The latter referred to reinforcement given to the model which the observer subsequently imitated, and not the observer him– or herself. This type of learning has been demonstrated in a number of studies (e.g., Bandura, Ross, & Ross, 1963).

Beginning in the late 1970's, the role of cognition for social learning was assimilated into what is now known as a social cognitive

theory, involving the notion of reciprocal determination (Bandura, 1977, 1986). Reciprocal determination refers to the interaction between personal factors such as cognition and affect, and behaviors and environmental influences, which in turn implicates that individuals both create and are created by their environment.

What is Social Cognition?

Social cognition deals with cognitive processes associated with social situations, that is, how people think about, process and remember information about themselves and other people (Pennington, Gillen, & Hill, 1999). Because one of the central aspects in shyness is that it is almost always connected with social situations, the cognitions of shy individuals that concern, for instance, how they appear to other people or how they explain their own feelings, physiological reactions or behaviors, are of great importance. There is, for instance, previous research suggesting that the social cognition of shy individuals might actually affect their social performance (Brodt & Zimbardo, 1981). These results also offer support for the theoretical self-efficacy model proposed by Bandura (1977). This model explains the relation between social skills and social cognition in terms of self-efficacy, that is, people's judgments that they are able to perform at a given level in various types of situations, including social ones (Bandura, 1986). Self-efficacy beliefs can be attained by four different sources, namely through (a) personal experiences of successes, (b) observation of someone similar to oneself who succeed at a task, (c) social persuasion, and (d) interpretation of physical and emotional reactions that pertain to external or less stable internal factors (Bandura, 1994). Thus, according to this model, when people experience physiological or emotional arousal they may explain or attribute this arousal to either internal (e.g., personality) or external factors (e.g., other people). When people explain their arousal by means of stable internal causes such as personality traits, they are also less likely to have a high degree of self-efficacy, since personality traits by definition are stable across time and situation. Stepleman, Darcy and Tracey (2005) expanded on this notion by demonstrating that a higher degree of self-efficacy was related to attribution of the cause of a given problem to external factors

and attribution of the solution of a given problem to internal factors. Further, individuals who have a low degree of self-efficacy tend to not put forth as much effort into social situations since they do not believe that they can handle them at any rate (Bandura & Cervone, 1983, 1986; Brown & Inouye, 1978; Weinberg, Gould, & Jackson, 1979). For instance, Heyman, Dweck and Cain (1992) demonstrated that children, who to a higher degree attributed failure situations to stable internal causes (for instance, intelligence), were less likely to persist in that situation compared to children who to a lesser degree attributed failures to stable internal causes.

Attribution

People explain their own and other people's behaviors, both in successful and less successful situations, by the use of various causes. These explanations or attributions are by definition subjective causal explanations that people make about personal events that they encounter in their lives (Bell-Dolan & Anderson, 1999).

It has been suggested that attributions can vary along from at least three and up to perhaps five different attributional dimensions. These are locus (Heider, 1958; Phares, 1957; see also Rotter, 1966), stability (Weiner et al., 1972), controllability, intentionality (Heider, 1958) and globality (Abramson, Seligman & Teasdale, 1978). The most extensively studied attributional dimension is that of locus (Bell-Dolan & Anderson, 1999). Causes can be described as either internal (e.g., personality factors) or external (e.g., situational circumstances). Causal locus has been shown to be related to self-esteem, that is, attribution of successful events to internal causes is related to a higher degree of self-esteem, whereas attribution of failures to internal causes is related to a lower degree of self-esteem (e.g., Weiner, Russell, & Lerman, 1978, 1979). McFarland and Ross (1982), however, discussed some difficulties determining the causal direction between attributional pattern and self-esteem, even though they presented evidence as to the proposed relation between attribution of successful and failure situations and level of self-esteem. Stability refers to the temporal consistency of a cause. In other words, some causes such as luck, might be viewed as very unstable, fluctuating over time, whereas other

causes such as intelligence are perceived as much more stable (Bell-Dolan & Anderson, 1999). Stability has been shown to be related to expectancy of future success or failure, i.e., if a present successful event is attributed to a stable cause, the likelihood of future success is anticipated. On the other hand, if the successful event is attributed to an unstable cause, then a future success is much less likely to be anticipated. Similarly, a failure, which is attributed to a stable cause, is viewed as more likely to occur in the future, but less likely if it was attributed to an unstable cause. However, Anderson, Krull and Weiner (1996) argued that previous research concerning the linkage between stability and expectancy demonstrate somewhat inconsistent results.

A third dimension is that of controllability, which refers to the degree of personal control an individual believes that he or she can exert over specific outcomes. Some situations and outcomes should be much harder to control personally, whereas others are easier. Based on previous findings, Weiner (1985; 1986) suggested that individuals experience guilt if they think that they could have exerted control over a situation and thus could have behaved differently than they actually did, whereas they experience shame if they had experienced failure while believing that they could not have exerted control over a situation.

The fourth dimension is intentionality, which refers to whether the individual had some purpose or meaning when he or she acted (Weiner, 1979). Previous findings indicate that intentionality may be related to evaluation of other people's characteristics and attributes (Kelley & Michela, 1980). For instance, Shaw and Sulzer (1964) demonstrated that people received more blame for negative intended situations than praise for positive intended situations. It should, however, be noted, that the inclusion of intentionality as an attributional dimension has received critique on the basis of the possible difficulties of conceiving any specific cause as being intended (unintended); instead, actions might be considered as such (Weiner, 1985).

The fifth dimension, globality, refers to whether a given cause is expected to be consistent across different situations or not. Abramson et al. (1978) proposed that attribution of uncontrollable, negative outcomes to internal, stable and global causes would characterize depressed individuals. However, this proposition has received critique, partly aimed at the direction of causality, that is, between level of

depression and the various attributional dimensions (Wortman & Dintzer, 1978). Also, Anderson and Arnoult (1985) found that neither shyness nor depression was significantly predicted by globality for interpersonal and non-interpersonal negative and positive outcomes (i.e., successful and failure situations).

Anderson (1991), however, argued that there has been a tendency in previous research to confuse findings related to these attributional dimensions with whether people actually and typically think in terms of dimensions rather than categories of different types of causes. Therefore, he investigated in what way people sort a number of previously established causes for negative and positive outcomes, and to what extent they rate these causes as being related to various attributional dimensions, such as those five mentioned above. The results indicated that among the five dimensions, controllability, locus, stability and intentionality seemed to be crucial for the phenomenal description of how people do think about causes, whereas globality did not seem to be of importance. Further, the way people sorted these causes, based on similarity in meaning, suggested that they thought about them in a categorical rather than dimensional fashion. As Anderson (1991) stated, this does not mean that people do not or can not think about causes in a dimensional manner, rather they might foremost categorize causes based on similarity in order to determine how to act in a given way.

In a similar vein, Malle (2004, 1999) argued that attribution theory does not adequately describe how people actually explain behaviors in their everyday lives. Montgomery (2005) further suggested that this may be the reason why the number of publications regarding attribution theory has decreased from late 90s. The Folk Explanation of Behavior theory proposed by Malle and his colleagues (e.g., Malle, 2004, 1999; Malle & Knobe, 1997) implies that people distinguish between causes and reasons. Causes are viewed as mechanical explanations of unintentional behaviors and can be further divided into internal and external causes. An example of a causal explanation could be that someone was sweating because it was hot. Reasons are intentional explanations of intentional behaviors or rather actions. Malle (2004) argued that there are three major types of reasons; desires (e.g., “The reason why I took the train was that I wanted to meet my boyfriend”), beliefs (e.g., “The reason I stuck my hand in my pocket was that I thought that my car-keys were there”)

and valuing or evaluations (Montgomery, 2005), e.g., “The reason I was unimpressed by him was because I don’t trust him”. These reason explanations cannot be readily divided into internal and external since there might be both internal and external factors that determine a particular reason for behaving in a specific way (Montgomery, 2005). Also, when people identify intentional behaviors, they can give a reason and/or a description of the causal history of reasons that brought about this particular behavior.

Montgomery (2005) suggested three possible pathways to expand on Malle’s (e.g., Malle, 2004, 1999) Folk Explanation of Behavior theory. One hypothesis that Montgomery (2005) put forth was that explanations of behaviors seem to be associated with the degree to which these behaviors and the people performing them are perceived or evaluated as “good” or “bad”. It is possible that “goodness” and “badness”, respectively, can be viewed as intentional actions. A second hypothesis suggested by Montgomery (2005, p. 86) was that when people explain more than one action performed by one single person, they “seek for a consistent structure behind all actions where causes or reasons and evaluative perspectives are included in the consistency”. This hypothesis is in line with the fundamental assumption of consistency seeking inherent in classic theories about attribution (e.g., Kelley, 1973). Finally, Montgomery (2005) suggested that people’s explanations of their own or other people’s behaviors are in themselves intentional actions and thus can be explained. Montgomery (2005) proposed that such reason explanations concern desires, beliefs and evaluations.

Attributional biases

There are several theories about how people attribute various events and situations, for instance, the covariance model by Kelley (1967, 1973), which postulates that people attribute behaviors to internal and external causes based on information about the consistency, distinctiveness and consensus of this behavior. However, research has shown that people generally exhibit biases in their attributional patterns. One of these is the self-serving bias. In order to enhance self-esteem, people attribute failures to external causes and take credit for

successful events (e.g., T. J. Johnson, Feigenbaum, & Weiby, 1964). Another common bias is the fundamental attribution error (e.g., L. D. Ross, Amabile, & Steinmetz, 1977), which is a tendency to exaggerate the importance of personality for behaviors, i.e., to a higher degree attribute behaviors to internal rather than to external causes.

Self–Other Difference

Yet another extensively studied bias is that of the actor–observer difference (E. E. Jones & Nisbett, 1972), or the self–other difference (D. Watson, 1982), which lends some features from the fundamental attribution error. This bias proposes that actors to a higher degree attribute their own behaviors to external than to internal factors, whereas observers to a higher degree attribute some other person’s behavior to internal than to external causes. According to D. Watson (1982), there are four hypotheses that can be derived from the self–other difference, namely that (1) people should to a higher degree attribute their own behavior to external than to internal causes, but (2) to a higher degree attribute some other person’s behavior to internal than to external causes. Further, people should to a higher degree attribute (3) their own rather than some other person’s behavior to external causes, and (4) some other person’s than their own behavior to internal causes.

In a review of previously conducted research regarding the self–other difference, D. Watson (1982) presented only partial support for the self–other difference. A majority of the studies that D. Watson (1982) reviewed demonstrated that participants attributed situations involving themselves to a higher degree to internal than to external causes, which contradicts the first prediction stated above. Furthermore, in a majority of the studies that D. Watson (1982) reviewed concerning the second hypothesis outlined above, observers to a higher degree attributed actors’ behaviors to internal than to external causes. D. Watson (1982) also demonstrated persuasive evidence for the third hypothesis outlined above, that people to a higher degree attribute their own rather than other people’s behaviors to external causes. However, the fourth prediction did not receive support, since the tendency for people to attribute other people’s rather

than their own behaviors to internal factors did not reach significance. D. Watson (1982, p. 688, brackets inserted by the present author) argued that the overall support for the self–other difference in previous research “is primarily due to the differential tendency for self– and other–raters to attribute causality to [external factors], rather than to a differential preference for trait attributions”. However, Kemdal and Montgomery (2001) reported findings that contradicted this conclusion. Their results showed that both opponents and supporters of animal experimentation to an about equal extent attributed the other groups’ behaviors to external causes. Further, both groups to a higher degree attributed the other groups’ behaviors than their own behaviors to internal causes. Kemdal and Montgomery (2001) argued that the self–other difference, as exhibited by their participants, might be a reflection of their ideological views on research conducted on animals. In other words, explaining one’s own behaviors with external causes while explaining the opponents’ behaviors with internal causes might also be a way of obtaining seemingly valid arguments for one’s own opinion when publicly debating the issue.

Several explanations for the self–other difference have been proposed. Kelley (1967, 1973) argued that there are three different kinds of information that guide conclusions about the causes of behaviors. Consensus information regards the extent to which actors respond in a similar way to the same stimulus. Distinctiveness information concerns the degree to which the actor, as well as other actors, reacts in a similar way to other types of stimuli. Finally, consistency information regards the extent to which the actors, as well as other actors, react in a similar way to the same stimulus across time and situation. E. E. Jones and Nisbett (1972) suggested that observers have different information than do actors. Observers may have little or no knowledge of the affective states of an actor, which in turn may contribute to divergent conclusions regarding the causes of a behavior from an observer– and actor–perspective, respectively. Further, some behaviors may be the result of previous encounters between two or more individuals, and the behavior that is observed may thus be preceded by other actions not known to the observer. In this way, the observer may draw other conclusions about the causes for this behavior compared to the actor. E. E. Jones and Nisbett (1972) also proposed that there are differences in information processing between

actors and observers. Different aspects in the environment or the behaviors may be salient to the actor and the observer. For the observers, the behavior of an actor might be more salient than aspects of the environment, since the latter is assumed to be fairly stable, whereas the behavior is viewed as ever-changing and dynamic. For the actor, the environment poses a constant demand on the possibility to adapt behaviors in order to properly interact with, for instance, other people, and therefore, the environment is more salient than personality.

Attribution and culture

Although not entirely consistent, numerous studies suggest that there are some cultural differences in both attribution and various types of attributional biases. J. G. Miller and Bersoff (1994) showed that Hindu Indian students to a higher degree than American students used internal factors ("likes to help"), whereas American students to a higher degree than Hindu Indian students used external factors ("reward or payment") when they explained reciprocal helping behaviors. J. G. Miller (1994) and J. G. Miller and Bersoff (1995) suggested that this difference is due to cross-cultural variations in terms of moral systems. In India, lending a helping hand is morally correct independent of whether it was done as a social obligation or of free will, whereas in America helping behaviors that occur under social pressure do not necessarily reflect a "good" personality. Further, Si, Rethorst and Willimczik (1995) demonstrated that Chinese individuals to a higher degree than German individuals attributed both successes and failures, related to sports achievements, to internal and controllable causes, whereas there were no cross-cultural differences regarding degree of stability for either successes or failures. Research has also shown that individuals living in China, to a lesser extent explain behaviors by means of internal factors, compared to individuals who reside in North America (Morris & Peng, 1994).

Attribution and development

There are studies suggesting that attributional processes start early in life and with increasing age, children tend to use more internally based causes rather than external ones in order to explain their own and other people's behaviors. At preschool age, children seem to have developed the ability to attribute their own (Friedberg & Dalenberg, 1990) and other people's behaviors to various types of causes (Fincham, 1983). While Friedberg and Dalenberg (1990) showed that children with a mean age of about 5 years to a higher degree attributed both successes and failures to internal than to external causes, Rholes, Newman, and Ruble (1990) demonstrated that the use of internal causes to explain various behaviors increased with age. In other words, younger children tend to use external causes more often than internal ones, but with increasing age, the usage of internal causes also increases. There are other studies that support this notion. For instance, late adolescents (college students through age 22 years) attributed different types of hypothetical aggressive behaviors to internal causes to a higher degree than did middle adolescents (11th and 12th graders), and further, middle adolescents attributed aggressive behaviors to internal causes to a higher degree than did early adolescents (7th and 8th graders) (Boxer & Tisak, 2003). Also, middle adolescents, in the ages of 15 and 16 years, attributed successful verbal and mathematical performance to a higher degree than younger children, in the ages of 10 and 13 years, to stable internal causes, i.e., ability, and to a lesser extent to less stable internal causes, i.e., effort (Valås, 2001).

Young children also exhibit other attributional biases. Abramovitch and Freedman (1981) found that children between the ages 49 and 60 months exhibited an actor–observer difference. More specifically, they to a higher degree attributed the fact that they liked playing their favorite game to internal than to external causes. Further, they to a higher degree attributed the fact that their best friend liked playing his or her favorite game to internal rather than to external causes.

Attribution and gender

Gender differences related to attributional pattern in a variety of different types of situations have been demonstrated in past research. For instance, Löchel (1983) revealed gender differences in 4-year-old children. Girls to a higher degree attributed failures than successes to ability, whereas boys to an about equal extent attributed failures and successes to ability. Further, women to a higher degree than men attributed their performance on a college course to effort, whereas men to a higher degree than women attributed their performance to ability (Campbell & Henry, 1999). Women and men also attribute child sexual abuse to different types of causes (Beling, Hudson, & Ward, 2001). More specifically, women more frequently than men attributed child sexual abuse to characteristics of the victim (for example, a child being "vulnerable") and the perpetrator's need for domination and control. In contrast, men more frequently than women explained child sexual abuse in terms of, for instance, sexual arousal and gratification on part of the perpetrator. Furthermore, men to a higher degree than women attributed responsibility to the victim, either a hypothetical 6- or 13-year-old boy or girl (Back & Lips, 1998) or a hypothetical adult woman (Workman & Freeburg, 1999), of sexual child abuse and date rape, respectively.

There are, however, some studies that report relatively small and non-significant gender differences. For instance, Anderson (1991) did not find any significant differences between women and men regarding how they thought about a number of different causes for negative and positive outcomes. Further, girls and boys, aged between 15 and 19 years, to an about equal extent attributed failures and successes to luck, context, ability and effort (Warner & Moore, 2004). Campbell and Henry (1999) did not find any significant differences between men and women regarding degree of internality, stability and globality for various types of freely chosen causes of successes and failures. Also, there was no gender differences in a study on childrens' and middle adolescents' attribution of successful mathematical and verbal performance to ability or effort (Valås, 2001), or in a study on the effect of objective self-awareness on university students' attribution of various types of hypothetical situations (Duval & Wicklund, 1973).

Taken together, the gender differences in attributional patterns revealed in past research have been described as disadvantageous for

females (Löchel, 1983). For instance, fifth-grade girls to a higher degree than fifth-grade boys attributed failures to lack of ability rather than lack of effort (Dweck & Reppucci, 1973). Also, fourth-grade girls to a higher degree than fourth-grade boys exhibited a self-derogatory attributional patterns, that is, the girls attributed failures to poor ability to a higher degree than they attributed successes to good ability (Nicholls, 1975). Furthermore, past results suggest that gender differences are revealed in association with specific types of situations or behaviors that are to be attributed. One such situation is sexual abuse, which is related to other types of gender differences, such as the frequency of women and men (boys and girls) reported to be victims of such crimes. It is possible that differences in men and women concerning attribution of sexual abuse or date rape is affected by the likelihood of being a victim of sexual abuse. For instance, in a comparison of 16 different studies conducted in 16 different countries, Finkelhor (1994) found that the rate of female victims of sexual abuse was between 1,5 and 3 times the rate of male victims.

SHY AND NON-SHY INDIVIDUALS' ATTRIBUTIONAL PATTERNS

Exploring differences between shy and non-shy individuals

Most previous research indicates that the attributional dimensions locus, stability, controllability and globality are associated with shyness depending on the type of situation that is to be attributed. However, the findings are somewhat inconsistent as to *how* shyness is related to, in particular, locus. For instance, Arkin, Appelman and Burger (1980) presented individuals with successes and failures, and those who were socially anxious to a higher degree attributed failures than successes to internal causes, but only in one of two experiments. On the other hand, several studies have shown that socially anxious or shy individuals to a higher degree than less socially anxious or non-shy individuals attributed failures to internal causes (Anderson & Arnoult, 1985; Arkin et al., 1980; J. E. Johnson, Aikman, Danner, & Elling, 1995). Also, both Anderson and Arnoult (1985) and J. E. Johnson et al. (1995) showed that shy individuals to a higher degree than non-shy ones attributed successful outcomes to external causes, whereas there was no difference between these two groups concerning this type of outcome in the Arkin et al. (1980) study. However, Bruch and Belkin (2001) demonstrated that a higher degree of shyness was related to less usage of internal causes for both interpersonal and non-interpersonal failures. Also, some studies have failed to reveal any significant relationship between shyness and locus (Bruch & Pearl, 1995; Teglasi & Fagin, 1984).

A common method to investigate attributions is to present participants with the task to state causes for different situations and to have them rate the degree to which these are perceived as internal and/or external. Often, the causes are not analyzed but rather the ratings of the degree to which they are perceived as internal and/or external are the main interest. In a few studies the analyses based on freely stated causes and ratings of the degree to which they were

perceived as internal and/or external reveal a somewhat different pattern of results. In the Teglasi and Hoffman (1982) study, shy individuals more frequently than non-shy individuals stated that negative outcomes were caused by stable internal causes such as shyness or (lack of) intelligence. Also, non-shy individuals more frequently than shy individuals stated that positive outcomes were determined by stable internal causes, whereas shy individuals more frequently than non-shy ones stated that these outcomes were caused by unstable internal causes, such as exerting extra effort, and unstable external causes, such as being lucky. However, an inspection of the results associated with the ratings of the degree to which these causes were perceived as internal and/or external reveals a somewhat different pattern. Non-shy individuals to a higher degree than shy individuals attributed positive outcomes to internal causes, whereas there was no difference between shy and non-shy individuals regarding their attributions of negative outcomes to internal causes. These mixed results are quite intriguing, since, and as has been mentioned previously, the findings presented by Anderson (1991) indicate that people may not typically think in terms of attributional dimensions, such as locus, but rather in terms of their categorical similarity. Therefore, it should be fruitful to bring further focus on this issue, which, to date, has not received much attention in the literature.

Concerning attributional dimensions other than locus, research shows that shy individuals more frequently used uncontrollable than controllable causes when they explained both positive and negative situations (Anderson & Arnoult, 1985; Bruch & Pearl, 1995). In a study by Alfano, Joiner and Perry (1994) shy individuals were shown to explain the causes of negative interpersonal and non-interpersonal situations as being global and stable, whereas non-shy individuals explained them as being specific and unstable. However, Alfano et al. did not include controllability in their study even though this is an extremely important dimension in connection with shyness (Bruch & Belkin, 2001). Furthermore, Bruch and Belkin argued that the stimulus material in the Alfano et al. (1994) study might have confounded interpersonal with non-interpersonal events, such that a more discriminatory test would yield differences between type of situation for shy persons' usage of the various attributional dimensions. When using a more sensitive material, Bruch and Belkin (2001) found that shyness was predicted by globality and controllability for negative

interpersonal situations, whereas locus, in relation to negative non-interpersonal situations, predicted shyness. Also, Anderson and Arnoult (1985) demonstrated that controllability was the best single predictor of level of shyness compared to locus, stability and globality for both negative and positive interpersonal situations, whereas locus and stability predicted level of shyness for negative but not positive interpersonal situations. In the J. E. Johnson et al. (1995) study, shy men, but not women, to a higher degree than their non-shy counterparts attributed successes to less stable causes, whereas failures were attributed to more stable causes.

Thus, previous findings, although not entirely consistent, seem to suggest that the attributional dimensions along which shy individuals explain causes vary as a function of the kinds of situations used as the stimulus material. In other words, for interpersonal situations controllability, stability and globality predict shyness to a greater degree than does locus, whereas for non-interpersonal situations locus predicts shyness to a greater degree than do the other attributional dimensions. If the interpersonal situations are further categorized as either negative or positive, shy individuals explain the former as being caused by uncontrollable, internal and stable causes whereas the latter is explained as being caused by uncontrollable causes.

Most attribution research has focused on negative or positive interpersonal and non-interpersonal situations rather than other, less value-laden situations. There are obvious advantages to this approach, since there are possible negative behavioral, emotional and cognitive consequences for individuals who tend to describe the causes of negative situations as being uncontrollable, stable, internal and global rather than controllable, unstable, external and specific. In a reformulation of the learned helplessness model, for instance, it is assumed that people who are prone to depression also attribute uncontrollable, negative situations to internal, stable and global causes (Abramson et al., 1978). Another negative outcome of this particular attributional style is that it might cause shy individuals to act in a less skillful manner or to avoid social situations all together (Anderson & Arnoult, 1985). However, this reformulation has received critique based on, for instance, a tendency in past research to investigate these attributional dimensions in a manner which makes it difficult to draw any clear conclusions regarding which of them contributes to depression (Wortman & Dintzer, 1978).

There are also other limitations associated with this kind of stimulus material. It could be argued that the definition of negative and positive situations might differ among individuals, including between participants and researchers. Further, most of the interpersonal and non-interpersonal situations which have been used previously involve descriptions of overt, general behaviors (e.g., initiating a conversation with a female classmate; Bruch & Pearl, 1995). However, in considering shyness, there are also other symptoms (for instance, emotions and physiological arousal) that should be of interest to study. Brodt and Zimbardo (1981) devised a study in which female shy and non-shy individuals were to interact with a confederate of the experiment, while listening to a loud noise. Half of the participants were told that a common side-effect of the noise was dryness of the mouth and tremors, physiological reactions that are not specifically associated with shyness (the misinformation condition), whereas the remaining participants were told that a common side-effect of this noise was to experience a pounding heart and increased pulse, reactions that, on the other hand, are commonly associated with shyness (the misattribution condition). The results showed that shy females in the misattribution condition to a higher degree attributed their physiological reactions to their own shyness, that is, an internal (and stable) cause, whereas the shy females in the misinformation condition to a higher degree attributed their physiological reactions to the noise, that is, an external cause. The latter individuals also exhibited behaviors that to a high degree resembled the non-shy participants' behaviors. These results clearly demonstrated the relationship between attributional pattern and, on the one hand, behavior, and on the other hand, degree of shyness. Unfortunately, Brodt and Zimbardo's (1981) design was incomplete since it excluded one group of participants, that is, non-shy females in the misinformation condition, which partly affects which conclusions can be drawn.

The Brodt and Zimbardo (1981) study is one of the few studies that have focused on shy and non-shy individuals attributions of physiological reactions to various causes. However, Leary et al. (1986) showed that attribution of emotional reactions was related to degree of behavioral inhibition and avoidance, the behavioral component of shyness. More specifically, those high in behavioral inhibition and avoidance to a higher degree attributed emotional reactions, such as

nervousness, to stable internal rather than to less stable internal and external causes. Stable internal causes were defined as aspects of the personality, e.g., "I'm an easy-going person", whereas less stable internal causes were defined as factors related to ability, e.g., "I handle awkward situations well". This result provided support for the self-efficacy model presented by Bandura (1977). As have been mentioned previously, Bandura proposed that individuals who exhibit this type of attributional pattern also will lower their self-efficacy beliefs and might, in the long run, exhibit behavioral inhibition and other types of impaired social behaviors. It is, however, less clear to what extent the self-efficacy model would hold as an explanation of shyness.

Explaining differences between shy and non-shy individuals

There are some, both theoretical and empirical, attempts in previous research to postulate and investigate possible explanations for the differences between shy and non-shy individuals concerning the previously observed attributional patterns. Previously established differences between shy and non-shy individuals regarding level of self-focused attention as well as specific subtypes of self-focused attention indicate that it is possible that self-focused attention plays a mediating role for the causal explanations used by shy and non-shy individuals (e.g., Brodt & Zimbardo, 1981).

Self-focused attention

In line with the actor-observer difference proposed by E. E. Jones and Nisbett (1972), Duval and Wicklund (1972) suggested that focus of attention determines how individuals attribute various behaviors and reactions to internal and external causes. In other words, whereas E. E. Jones and Nisbett (1972) argued that the differences between attributions made by an actor and those made by an observer are mediated by for instance differences in the salience of aspects in the environment, Duval and Wicklund (1972) argued that whatever the individual focuses on, is what the individual will attribute causality to,

independent of whether the person is an actor or an observer. Focus of attention is either directed towards the self, so called objective self-awareness or self-focused attention (Duval & Wicklund, 1972, 1973; Wicklund, 1975; Woody, 1996). Or, the attention is directed towards aspects of the environment, so called subjective self-awareness or other-focused attention (Duval & Wicklund, 1972; Woody, 1996).

The suggestion by Duval and Wicklund (1972) has received support in subsequent research. For instance, Duval and Wicklund (1973) found that female participants who to a greater extent focused their attention on themselves, by means of being seated in front of a large mirror, also to a higher degree than female participants, not exposed to the mirror, attributed both successes and failures to internal rather than to external causes. However, in the no-mirror condition, the female participants to an about equal extent attributed successes and failures to internal and external causes. Also, Taylor and Fiske (1975) demonstrated that participants, who were seated facing a confederate of the experimenter (A), to a higher degree than participants who were seated facing another confederate of the experimenter (B), while both confederates were engaged in a get-to-know-you type of situation, attributed the social encounter in terms of, for instance, tone of conversation, to confederate A rather than B. Taylor and Fiske (1975, p. 445) concluded that "point of view does indeed markedly determine causal interpretations of social situations". Experimentally induced self-focused attention has also been demonstrated to be associated with higher levels of social anxiety and withdrawal from social interactions (Alden, Teschuk, & Tee, 1992).

While the self-focused attention proposed by Duval and Wicklund (1972) entails a situational state, Fenigstein, Scheier and Buss (1975) proposed that there are individual differences in self-focused attention, or rather the trait of self-consciousness (Bromberg & Hartman, 1986). According to Fenigstein et al. (1975), people differ in how they attend to various aspects within the private or public domain. That is, people who are highly privately self-conscious tend to focus on their inner thoughts, beliefs and feelings, whereas those who are highly publicly self-conscious tend to focus on themselves as a social object, for instance, they think about how others might perceive them or evaluate them. A high level of public self-consciousness has been associated with, for instance, attribution of successes to internal rather than to external causes (Sandelands &

Stablein, 1986), which is an attributional bias termed egocentric attribution (M. Ross & Sicoly, 1979). Numerous studies also demonstrate a further categorization of the private, as well as the public self-consciousness scales (e.g., Buss, 1980; Burnkrant & Page, 1984; Mittal & Balasubramanian, 1987; Nystedt & Ljungberg, 2002). The subcategories of private and public self-consciousness have been shown to be differently associated with different aspects of personality and well-being (e.g., Creed & Funder, 1998b; P. J. Watson, Hickman, Morris, Stutz, & Whiting, 1994; P. J. Watson, Morris, Ramsey, Hickman, & Waddell, 1996).

Self-focused attention and shyness

Research from the field of social phobia suggests that self-focused attention is not specifically related to social phobia, but rather to feelings of social anxiety experienced while, for instance, making a speech (Woody & Rodriguez, 2000). Further, self-focused attention, related to negative aspects of the self in people diagnosed with social phobia, is significantly reduced after treatment of social phobia (Hofmann, 2000). Mellings and Alden (2000) demonstrated that individuals who were socially anxious to a higher degree than individuals who were less socially anxious exhibited a self-focused attention, whereas the two groups of individuals did not differ significantly on other-focused attention. Buss (1980, p. 46) also suggested that shyness to a higher degree is associated with public than with private self-consciousness since "virtually everyone who is high in social anxiety should be high in public self-consciousness, but perhaps only a bare majority of those high in public self-consciousness should be high in social anxiety". Both a measure of the behavioral component of shyness (in this case, social avoidance and distress) as well as a measure of social anxiety (in this case, fear of negative evaluation) have been shown to correlate positively with public self-consciousness, although, the latter also correlated positively, however, quite low, with private self-consciousness (Monfries & Kafer, 1994). Further, Asendorpf (1987) demonstrated that shy individuals to a higher degree than non-shy individuals reported being less interested and experiencing more negative emotions towards receiving feedback

from an interaction partner after a social get-to-know-you situation. Asendorpf (1987, p. 584) concluded that "a focus of the public self per se did not appear to be crucial for [...] shyness but a focus on negative aspects of the public self did". This conclusion has received further support by Mahone et al. (1993) who showed that male participants who more frequently reported negative thoughts about themselves prior to a social interaction also exhibited a higher degree of subjective social anxiety during that interaction compared to male participants who less frequently reported negative thoughts about themselves. Furthermore, male participants who more frequently reported positive attributes of the interaction partner also exhibited more behavioral signs of anxiety compared to male participants who less frequently reported positive attributes of the partner.

However, the conclusion presented by Asendorpf (1987), that a negative focus of attention on the self might be more important than a general focus on public aspects of the self for shy individuals, may not hold up in relation to various emotional, cognitive and behavioral reactions in social interactions. Bruch, Hamer, and Heimberg (1995) found only main effects for degree of shyness and degree of public self-consciousness concerning, for instance, concern about negative evaluation, negative and positive self-referent thoughts experienced in a social interaction between male university students and one of three female confederates of the experimenters. Further, Bögels, Rijsemus and DeJong (2002) did not find any significant interaction effects between degree of social anxiety and level of experimentally induced self-focused attention regarding various measures of emotional and physiological reactions as well as social behaviors, i.e., blushing, fear and social skills. In other words, these studies suggest that shyness and public self-consciousness contribute independently in an additive fashion to, for instance, concern about negative evaluation.

In sum, research concerning shy and non-shy individuals' attribution of various types of behaviors reveal quite a mixed picture. However, the findings that are not contradicting demonstrate that shy individuals to a higher degree than non-shy attributed successes to external causes (Anderson & Arnoult, 1985; J. E. Johnson et al., 1995). Also, shy and behaviorally inhibited individuals to a higher degree than non-shy and less behaviorally inhibited individuals attributed emotional and physiological reactions to stable internal causes,

whereas non-shy and less behaviorally inhibited individuals to a higher degree than shy and behaviorally inhibited individuals attributed these reactions to less stable internal or external causes (Brodt & Zimbardo, 1981; Leary et al., 1986). Even though Teglasi and Hoffman (1982) found no significant difference between shy and non-shy individuals concerning their ratings of the degree to which outcomes were perceived as internal and/or external, shy individuals more frequently than non-shy ones stated that failures were caused by stable internal causes.

Finally, differences in self-focused attention between shy and non-shy individuals might function as a mediator for the attributional patterns exhibited by these groups of individuals. Numerous studies have shown that focus of attention is associated with how people attribute behaviors and reactions to various types of causes (e.g., Duval & Wicklund, 1973; Taylor & Fiske, 1975). Research has also shown that shy or socially anxious individuals are more self-focused compared to non-shy or less socially anxious individuals (Alden et al., 1992; Mellings & Alden, 2000). However, some studies have demonstrated that shyness and public self-consciousness or self-focused attention do not interact in determining concern about negative evaluation and negative and positive self-referent thoughts experienced in a social interaction (Bruch et al, 1995) as well as various measures of emotional and physiological reactions and behaviors (Bögels et al, 2002).

AIMS OF THE THESIS

In sum, shyness has been defined as a tendency to feel discomfort (e.g., W. H. Jones, Briggs, & Smith, 1986) and to exhibit awkward behaviors in social settings (Creed & Funder, 1998a). The cognitions of shy individuals, for instance rumination over past events (Edwards et al., 2003), negative thoughts about the self (Mahone et al., 1993), coupled with emotional reactions such as embarrassment and fearfulness (W. H. Jones et al., 1986), experienced prior to, or during, a social situation, may be related to self efficacy beliefs and, ultimately, the behaviors of shy individuals. Leary (1986) postulated such a relationship termed the anxiety–inhibition cycle, where the cognitive and emotional reactions and processes may, if not increase the level of shyness, at minimum sustain it. Also, it is possible that shyness is enhanced by the way shy individuals attribute their own and other people’s behaviors, emotions and physiological reactions to various causes (e.g., Brodt & Zimbardo, 1981). Attributional patterns have been shown to be related to self–effiacy beliefs (Stempleman et al., 2005) and, in turn, these beliefs may be associated with how individuals actually behave in social settings (e.g., Bandura & Cervone, 1983; Heyman et al., 1992). However, it is unclear whether shy individuals attribute their emotional reactions to stable internal rather than to less stable internal or external causes, which, according to Bandura (1977) could lead to a lower self–efficacy. It is further unclear whether shy individuals, who exhibit this type of attributional pattern also have a higher degree of behavioral inhibition. For these reasons, it is of importance to increase the knowledge about the attributional patterns of shy individuals, to what degree these individuals differ from non–shy individuals concerning attributional patterns, and the stability across various types of situations.

The studies presented in the thesis address the following questions:

- (1) To what extent do shy and non–shy individuals differ concerning attribution of their own and other people’s behaviors to various internal and external causes?
- (2) Is shyness to a higher degree associated with attribution

of emotional reactions to stable internal causes than to less stable internal and external causes? If so, to what extent can this attributional pattern be explained by self-focused attention?

- (3) To what extent do shy individuals, who ascribe emotional reactions to stable internal causes rather than to less stable internal and external causes, also exhibit a higher degree of behavioral inhibition? To what extent do shy and non-shy individuals, either low or high in behavioral inhibition, rate these causes as internal and external?
- (4) Are shy and non-shy individuals' experiences of shyness different and are there differences among shy individual's experiences of shyness?

SUMMARY OF STUDIES I–IV

Study I

Purpose

The purpose of Study I was to investigate possible differences between shy and non-shy individuals concerning the self–other difference. As has been mentioned previously, the self–other difference encompasses the notion that people should attribute their own behaviors to external rather than to internal causes, whereas they should attribute other people’s behaviors to internal rather than to external causes (E. E. Jones & Nisbett, 1972). Since previous research has demonstrated that shy individuals are more self-centered (Zimbardo, 1977) and self-conscious (Ishiyama, 1984) compared to non-shy individuals, it was predicted in Study I that shy individuals would exhibit less of a self–other difference compared to the non-shy individuals. More specifically, shy individuals should to a higher degree than non-shy individuals attribute their own behaviors to internal causes. Further, non-shy individuals were expected to attribute their own behaviors to external rather than to internal causes. Finally, the latter individuals were hypothesized to attribute other people’s behaviors to internal rather than to external causes.

Method

A total of 39 Swedish high school seniors (25 women and 14 men, ranging in age from 18 to 21 years, $M = 19.05$ years, $SD = 0.69$ years) received a questionnaire containing six different scenarios describing shyness–resembling behaviors. Each scenario was presented twice, such that one version involved the participant’s behaviors (e.g., “A person, who you don’t know so well, calls you up and asks if you want to attend a large party. You decline the offer”) and the other version

involved some other, hypothetical person's behaviors (e.g., "A person, who Phi doesn't know so well, calls Phi up and asks if Phi wants to attend a large party. Phi declines the offer"). The task was to rate the extent to which each behavior was caused by four different predetermined causes, two internal (shyness and lack of interest) and two external causes (other people and occasional circumstances). The ratings were done by putting a mark on 101 mm scales, ranging from 0 (*Not at all likely*) to 101 (*Completely certain*). Shyness was measured by means of one question ("Do you think that you are shy?"), which was to be answered on a nine-point scale, ranging from 0 (*no, not at all*) to 8 (*yes, very*). Individuals who rated themselves as having a shyness-degree of 4 or more were categorized as shy ($n = 15$), whereas individuals who rated themselves as having a shyness-degree of 2 or less were categorized as non-shy ($n = 21$). Thus, participants who rated themselves as having a shyness-degree of 3 were excluded from any further analyses ($n = 3$).

Results and Discussion

The main results showed a highly significant three-way interaction effect between degree of shyness (shy vs. non-shy), role (self vs. other) and causal locus (internal vs. external), indicating that non-shy individuals to a higher degree attributed their own shyness-resembling behaviors to external than to internal causes, whereas shy individuals to an about equal extent attributed their own behaviors to internal and external causes. Further, both shy and non-shy individuals to a higher degree attributed other people's behaviors to internal than to external causes. In other words, non-shy individuals exhibited a much larger self-other difference than did the shy individuals, which was in accordance with the prediction. Also, shy individuals to a higher degree than non-shy individuals attributed both their own and other people's behaviors to internal causes, whereas there was no such difference concerning the external causes. The results were interpreted in terms of shy individuals being more self-focused than non-shy individuals. Such a difference might also have implications on cognitive processes such as problem solving abilities and memory.

Study II

Purposes

Previous findings have demonstrated that shy individuals to a higher degree attribute their physiological reactions to stable internal causes rather than to less stable internal or external causes (Brodt & Zimbardo, 1981). This particular attributional pattern could, according to Bandura (1977), be associated with self-focused attention and low self-efficacy beliefs and, ultimately, to behavioral inhibition and other types of impaired social behaviors. Leary et al. (1986) provided support for this model, since they showed that behavioral inhibition and avoidance was associated with the tendency to attribute emotional reactions to stable internal rather than to less stable internal and external causes. However, Leary et al. (1986) did not include shyness in their study, whereas Brodt and Zimbardo (1981) did not differentiate between different types of internal causes (stable vs. less stable). Thus, it is difficult to draw any conclusions about the extent to which shyness interacts with self-focused attention in determining attribution of emotional reactions in social situations. In Part 1 in Study II it was predicted that shyness would correlate more strongly with attribution of emotional reactions to stable internal causes rather than to less stable internal and external causes. In Part 2 in Study II it was predicted that shyness would explain a lesser portion of the variance in attribution of emotional reactions to stable internal causes once self-focused attention had been statistically controlled for.

Method

In Part 1 there were 59 participants, of which 35 were women and 24 were men, ranging in age from 13 to 73 years ($M = 35.59$ years, $SD = 16.90$ years). In Part 2 there were 113 participants, of which 56 were women and 57 were men, ranging in age from 15 to 78 years ($M = 36.46$ years, $SD = 15.08$ years). The participants received four (Part 1) or two (Part 2) different written scenarios describing their own emotional reactions (nervousness and feelings of awkwardness). The task was to indicate to what extent five (Part 1) or four (Part 2)

different predetermined causes had caused their reactions, by means of nine-point scales ranging from 1 (*Not at all likely*) to 9 (*Completely certain*). Three (Part 1) or two (Part 2) of these causes concerned either stable (shyness) or less stable causes (having the wrong behavioral strategy and having no behavioral strategy), whereas two concerned external causes (other people and occasional circumstances). Participants were also to complete a single-item self-rating of shyness ("Do you think that you are shy?"), on a scale ranging from 1 (*No, not at all*) to 9 (*Yes, very*). In association with the hypothetical situations used in Part 2, participants were to rate 10 items, where five pertained to self-focused attention and five pertained to other-focused attention. Based on the results from an exploratory principal-axis factor analysis, three of the five items pertaining to self-focused attention were used in subsequent analyses.

Results and Discussion

The results from Part 1 and Part 2 provided support for the prediction that shyness would correlate more strongly with attribution of emotional reactions to stable internal causes rather than with attribution to less stable internal and external causes. More specifically, in Part 1, shyness correlated significantly and positively with attribution to stable internal causes, whereas the correlations between shyness and, on the one hand attribution to less stable internal causes, and, on the other hand, attribution to external causes did not reach significance. In Part 2, shyness correlated significantly with both attribution to stable and less stable causes, however, the former correlation was higher. As in Part 1, the correlation between shyness and attribution to external causes did not reach significance. Taken together, these results indicated that shy individuals exhibited a similar pattern of attribution as did individuals high in behavioral inhibition (cf. Leary et al., 1986), which should warrant a reexamination of the self-efficacy model as proposed by Bandura (1977). In other words, the present findings indicated that the self-efficacy model did not lead to predictions that are unique for behavioral inhibition. This is the case since shyness involves not only behavioral inhibition, but also emotional and cognitive aspects (Cheek & Melchior, 1990).

The prediction stated in Part 2, that shyness would explain a lesser portion of the variance in attribution of emotional reactions to stable internal causes once self-focused attention had been controlled for, also received support. The results revealed that shyness explained a significantly lesser portion of the variance in attribution of emotional reactions to both stable and less stable causes when controlling for self-focused attention compared to when not controlling for self-focused attention. There was no significant difference between the explanatory power of shyness concerning external causes when controlling and not controlling for self-focused attention. Taken together, the findings indicated that self-focused attention is an important factor in attribution, which is in line with previous research (e.g., Taylor & Fiske, 1975; Mellings & Alden, 2000). However, the results also indicated that degree of shyness contributed uniquely to attribution of emotional reactions to internal causes. One possible explanation for this result is that shy and non-shy individuals differ, not only in terms of self-focused attention, but also in terms of different *types* of self-focused attention, i.e., public or private self-consciousness (Fenigstein et al., 1975) as well as the *valence* of self-focused attention. Valence refers to whether the focus is on positive or negative as opposed to neutral aspects of the self. Past research has also shown that shy individuals to a higher degree than non-shy individuals attend to negative aspects of the public self (Asendorpf, 1987). Finally, shy and non-shy individuals may also differ with respect to how they perceive past, current and future situations, behaviors and reactions (Zimbardo & Boyd, 1999). For example, emotional reactions, such as nervousness, experienced in a current social situation, might to a higher degree trigger negative memories of past events for shy as compared to non-shy individuals, and, in turn, these memories may serve as a basis for drawing causal conclusions about current reactions. The present findings might also have implications for the possibility to overcome shyness, although further studies are needed in order to clarify the causal relation between shyness, self-focused attention and social skills.

Study III

Purposes

Previous research shows that a higher degree of behavioral inhibition and avoidance is associated with a tendency to attribute emotional reactions, such as nervousness, to stable internal rather than to less stable internal and external causes (Leary et al., 1986). Thus, the proposition by Bandura (1977) that this specific attributional pattern is associated with behavioral inhibition has been supported. However, Leary et al. (1986) had not included shyness which makes it difficult to conclude to what extent these two, supposedly separate phenomena, would interact in determining causal attribution. Further, there is research suggesting that people may not typically think in dimensional terms when thinking about the causes of behaviors (Anderson, 1991). Despite this, there has been a tendency in past research to neglect the actual causes stated by participants, and to focus on participants' ratings of attributional dimensions, such as causal locus. For these reasons, one purpose of Study III was to investigate to what extent shy individuals, who attribute emotional reactions to stable internal causes rather than to less stable internal and external causes, also exhibit a higher degree of peer-rated behavioral inhibition. Based on the self-efficacy model by Bandura (1977) one would expect this to be the case. However, the model does not predict possible differences between shy and non-shy individuals who are both high in behavioral inhibition. A second purpose of Study III was to investigate to what degree causes that have been classified as either stable internal, less stable internal or external, are actually viewed as such by shy and non-shy individuals, either high or low in peer-rated behavioral inhibition.

Method

A total of 56 participants (40 women and 16 men, ranging in ages from 20 to 56 years, $M = 27.07$ years, $SD = 7.07$ years) were to state one major cause for their emotional reaction, that is, nervousness, in a hypothetical situation. The participants were then to rate the degree to which this cause was determined by something about themselves (i.e.,

internally based), as well as the degree to which the cause was determined by something about the environment or other people (i.e., externally based) on separate nine-point scales, ranging from 1 (*Not at all*) to 9 (*Completely*). All participants completed a Swedish translation of the 13-item Cheek and Buss Shyness Scale (RCBS; Cheek, 1983) and also had one peer each complete a modified peer-version of this shyness-measure, where ratings were done on nine-point scales ranging from 1 (*Untrue/Not characteristic of me/my friend*) to 9 (*True/Characteristic of me/my friend*). A median-split ($Md = 3.42$) of the distribution of scores on the RCBS was done, such that those who scored above the median were categorized as shy ($n = 25$, of which 16 were women and 9 were men), and those who scored below the median were categorized as non-shy ($n = 24$, of which 19 were women and 5 were men). Similarly, a median-split ($Md = 2.60$) of the distribution of the scores on the peer-ratings on five of the RCBS items that pertain to behavioral inhibition was done, such that those who scored above the median were classified as high in behavioral inhibition ($n = 25$, of which 19 were women and 6 were men), whereas those who scored below the median were classified as low in behavioral inhibition ($n = 24$, of which 16 were women and 8 were men).

Results and Discussion

The freely stated causes were classified by two judges as either stable internal, less stable internal or external. Interrater agreement, as computed by Cohen's Kappa, was 0.74, and disagreement was resolved by discussion between the two judges. The external causes were not included in subsequent analyses since they were few in number ($n = 2$). The main results showed that a majority of the shy participants ascribed the emotional reaction to stable internal causes, whereas a majority of the non-shy participants ascribed the reaction to less stable internal causes. Further, a majority of the shy participants were classified as high in behavioral inhibition, compared to a minority of the non-shy participants. However, there was no significant three-way interaction effect between self-rated shyness, peer-rated behavioral inhibition and type of causes.

Taken together, the findings indicated that a majority of the shy individuals exhibited the attributional pattern proposed by Bandura (1977). In other words, the results suggested that level of shyness, but not peer-rated behavioral inhibition, determined how individuals ascribed freely chosen causes to an emotional reaction in a social situation. This finding is particularly noteworthy since Bandura (1977) did not include any references to other types of personality or traits. In addition to behavioral inhibition, which could be viewed as lack of social skills, or impaired social behaviors and not necessarily as a stable trait, such factors should be useful when explaining individual differences in attributional processes.

The findings also revealed that the participants to a higher degree rated less stable than stable internal causes as internal. This result contradicted previously established definitions of such causes, which encompass the notion that the more incorporated a factor is within the individuals' personality or identity, the more stable that cause is (e.g., Leary et al., 1986). In fact, the present findings might implicate that some aspects of personality or identity perhaps is not perceived as particularly stable (cf. Turner, 1987; Markus & Wulf, 1987), but rather as a matter of perceived degree of control exerted by the individual (F. D. Miller, Smith, & Uleman, 1981). It is possible that seemingly stable internal causes, such as personality factors, may in fact be viewed as less internal, and furthermore considered to be more controllable. Another hypothesis, based on this proposition, is that attributing emotional reactions to stable internal causes might actually increase the level of self-efficacy, contrary to Bandura's (1977) assumption. This should be the case since these causes might be viewed as more controllable, and a higher degree of controllability may be related to self-efficacy.

The results from Study III also showed that there was no significant difference between shy individuals either low or high in behavioral inhibition concerning their ratings of less stable causes. However, non-shy individuals high in behavioral inhibition to a higher degree than their less behaviorally inhibited counterparts rated less stable causes as internal. The results suggested that behavioral inhibition has different consequences for shy and non-shy individuals. One possible explanation for the present results was that behaviorally inhibited non-shy individuals may not *feel* behaviorally inhibited. They may, instead, act behaviorally inhibited because of other reasons,

such as being concerned about other people's social comfort or trying to avoid unnecessary conflicts.

Study IV

Purpose

Past research has demonstrated that certain types of social situations induce shyness, for instance, being the center of attention (Ishiyama, 1984), being asked personal questions in public (Russell, Cutrona, & Jones, 1986), and having to stand in front of an audience that is not familiar (Van der Molen, 1990). Since some of these studies did not include a sample of non-shy individuals, and, furthermore, most research has been based on North American samples, it is unclear to what extent these results can be generalized to both shy and non-shy individuals, as well as individuals from different ethnic and geographic backgrounds. It is also possible that the types of situations that induce shyness vary as a function of individuals' age. There are some studies that have longitudinally addressed the question of development of shyness (e.g., Kagan et al., 1988; Kerr et al., 1994), however, it is less clear how individuals themselves construct and think about their own shyness in terms of increasing age. One important reason for investigating this issue was that Zimbardo and Boyd (1999) suggested that how individuals interpret, for instance, past behaviors, should have an impact on their current and future emotional, cognitive and behavioral status. Another issue, that was discovered after an initial sample of participants for the present study had been interviewed, was that only non-shy individuals spontaneously mentioned positive aspects of being shy. Past research on shyness has mainly focused on negative sides of shyness, although knowledge about positive aspects might actually have implications for the possibility to overcome shyness. Previous research has demonstrated that shy people describe several positive aspects of being shy such as being sensitive (Scott (2004a) and gaining an opportunity to "hide" from social conventions which might lead to less inhibited behavior (Zimbardo, 1977). Finally, there are also few studies that have included non-shy individuals' thoughts about and perception of shyness. Creed and Funder (1998a)

found that non-shy individuals were generally negatively inclined towards shyness. However, this study included a controlled social interaction between non-acquainted shy and non-shy individuals, and, therefore, the possibility to generalize this result might be limited.

The purpose of Study IV was to investigate if there were any differences between shy and non-shy individuals' experiences of shyness and if there were any differences among shy individual's experiences of shyness. There are a few previous qualitative studies concerning shyness. The most recent studies are however from a sociological and not a psychological perspective (Scott, 2004a; 2004b) whereas the most cited qualitative study within the shyness-area was published in 1977 by Zimbardo. Almost twenty-five years later Zimbardo suggested in an interview published in *Psychology Today* (Maslach, 2000) the possibility that the increasing number of shy individuals in the population might be due to societal and technical advances and changes leading to for instance a widespread use of mobile phones and the Internet. It is further possible that these technical advances may have changed people's experiences of shyness and for instance what type of situations that induce shyness. Another reason for conducting the present study was that a qualitative approach to studying shyness offered the possibility to gain other types of knowledge compared to a quantitative study, such as personal experiences of prior shyness.

Method

A larger pool of 68 individuals, of which 56 were included in Study III, who had rated themselves on two shyness-measures and also had a friend fill out two peer-measures of shyness, were asked if they wanted to participate in Study IV. The self-measures included one single-item shyness-scale ("Do you consider yourself shy?") which was to be answered on a nine-point scale, ranging from 1 (*No, not at all*) to 9 (*Absolutely*). The other self-measure consisted of the Swedish translation of the 13 item Revised Cheek and Buss Shyness Scale (RCBS; Cheek, 1983). The peer-measures of shyness were identical to the self-measures with the exception that they had been adapted such that the peers could rate their participating friend. Of the 26 individuals

who stated that they were interested in participating in the current study, 11 were chosen based on their scores on the shyness-measures. Five participants had scores above the median on both self- and peer-measures of shyness and were categorized as shy (3 male and 2 female). One of these participants had a single self-rating of shyness that was exactly on the median but was nevertheless included in the study since all the other measures were above their respective median. Five participants had scores below the median on both self- and peer-measures of shyness (2 were men and 3 were women) and were categorized as non-shy. An additional participant (a female), who had scores on the median on the self-measures of shyness but scores below the median on the peer-measures, was included in the study. This participant was categorized as self shy/peer non-shy.

Each participant was interviewed by means of a semi-structured interview guide, including questions about situations that induce shyness and non-shyness, respectively, as well as descriptions of the participants' shyness from the time where they started to feel shy up until the present. Also the participants were asked about the possible impact of their shyness on their social and academic life, as well as possible strategies they use in order to overcome shyness. Three questions were added to the interview guide after an initial sample of five interviews had been analyzed. These questions pertained to possible negative and positive consequences of shyness as well as how the participants viewed (other) shy persons. The reason for including the first two of these questions was that only non-shy individuals had previously talked about shyness being partly positive, and we wanted to investigate what shy people had to say about it when confronted with direct questions. The decision to include the last question was derived after a suggestion by L. Henderson (personal communication, February 3, 2005).

Results and Discussion

The transcribed interviews were analyzed in six phases in accordance with the suggestions by Malterud (1988), which in turn are based on grounded theory (Strauss & Corbin, 1990) and phenomenology (Giorgi, 1985). Specifically the analysis was in line with a particular

type of phenomenological approach, viz. an interpretative phenomenological analysis (IPA; Smith, Jarman, & Osborn, 1999; Smith, & Osborn, 2004). The reason for this was that the analysis was conducted in conjunction with the researchers' interpretation of the informants' statements.

The analysis revealed six themes where Theme 1, *What is shyness?*, included various symptoms of shyness, the social life of shy and non-shy participants, different shyness-inducing situations, the impact of shyness on shy and non-shy individuals' studies and worklife, the negative and positive consequences of being shy, and a closely related phenomena, i.e., social phobia. Theme 2, *Development over time*, described how the participants became shy, when shyness started, that practice leads to social skills, and the turning point for the shy participants. Theme 3, *Strategies to overcome shyness*, included various reasons for working with one's shyness, and different strategies to overcome shyness such as portraying yourself as worse than you are, trusting your own capabilities and keeping an inner dialogue. Theme 4, *Shyness in other people*, described various negative and positive perceptions of (other) shy people such as feeling sorry for shy people, viewing shyness as a negative trait that it is hard to feel sympathy for and thinking that shy people seem kind and nice. Theme 5, *What is non-shyness?*, included aspects of non-shyness for instance being spontaneous, feeling secure and actively seeking people and creating friendships. Theme 6, *The future*, included fear of becoming lonely and a contradictory wish that shyness would disappear yet still remain intact.

The present results corroborated those of previously conducted quantitative research concerning, for instance, physiological reactions experienced in connection with social situations (e.g., Ishiyama, 1984). The findings from Study IV also expand on previous research in a number of ways. First, currently shy individuals differed from non-shy individuals in that the former viewed shyness as partly caused by the interaction between an individuals' thoughts and behaviors and the environments' reactions toward this individual, so called reciprocal determinism (e.g., Bandura, 1986). On the other hand, non-shy individuals viewed shyness mainly as a natural part of growing up. A majority of the latter individuals had been more or less shy in their childhood, and it might be assumed that their belief was associated with the fact that their shyness had diminished significantly in

adulthood. In fact the shy participants started to become shy during junior high school, at which time the non-shy participants gradually became less shy. On the other hand the shy participants remained shy throughout high school and in most cases longer than that. Second, the present results indicated that both shy and non-shy individuals described their own behaviors in new social situations in much the same way, that is, they took on a more passive role, however, their thoughts concerning their respective behaviors differed. Shy individuals seemed to think more about how other people might perceive them, whereas non-shy individuals seemed to concern themselves more about the social codes in the currently new social situation. Nevertheless, extremely shy participants stated that they did not know how to behave in social situations, and for that reason they might become more socially awkward. The results from Study IV also showed that participants were not overly negatively inclined towards other shy people, rather they felt sorry for them, and tried to help them in various way. However the participants seemed uncertain about how to accomplish this in an effective way, which also created some irritation on the part of the non-shy individuals. The present findings further indicated that some of the more extremely shy participants experienced identity confusion. There is a lack of research about the relationship between shyness and identity confusion, even though the latter might have implications for the possibility to overcome shyness and for the development of clinical disorders, such as social phobia.

DISCUSSION

In this section, the main findings from Study I, II, III, and IV will be discussed, and the conclusions drawn from these findings will be presented and discussed. This chapter also includes suggestions for future research based on the present findings and conclusions.

The main results from the present thesis indicate that self-focused attention to some degree explains particular attributional patterns in shy individuals. In Study I the main findings indicated that the self-other difference, with regard to shyness-resemblance behaviors, to a much higher degree was exhibited by non-shy than by shy individuals. This attributional difference between shy and non-shy individuals might be explained by previously established differences in degree of self-focused attention (Ishiyama, 1984; Zimbardo, 1977). Further, the results from Study II demonstrated that self-focused attention predicted attribution of emotional reactions to stable internal causes, which is in accordance with the expectation based on Bandura's (1977) self-efficacy model as well as on previous research by, for example, Taylor and Fiske (1975) and Mellings and Alden (2000).

However, self-focused attention does not function as a sole explanation of shy individuals' attributional patterns. The results from Study II demonstrated that when self-focused attention had been statistically controlled for, shyness still explained a significant portion of the variance in attribution of emotional reactions to both stable and less stable internal causes. These findings suggest that other possible factors might interact with self-focused attention in determining attribution in shy individuals. For instance, shy individuals may not only focus inwards, but may also pay particular attention to negative rather than positive aspects of the self (cf. Asendorpf, 1987). Further research is, however, needed in order to establish what, if any of these, factors interact with shyness in determining attribution.

The current findings also point to a need for a reformulation of Bandura's (1977) self-efficacy model. The results from Study II and Study III demonstrated that shyness was associated with attribution of emotional reactions to stable, rather than to less stable internal and

external causes. More specifically, in Study II it was shown that attribution of emotional reactions to stable internal causes correlated with shyness to a higher degree than did attribution of emotional reactions to less stable internal and external causes. The results from Study III indicated that a majority of the shy individuals ascribed an emotional reaction to stable internal rather than to less stable internal causes. Also, a majority of the non-shy individuals ascribed the reaction to less stable rather than to stable internal causes.

Taken together, these results are therefore not in accordance with the prediction derived from Bandura's (1977) self-efficacy model, viz. that a high degree of behavioral inhibition would be associated with attribution of emotional reactions to stable internal rather than to less stable internal and external causes (cf. the attributional pattern of non-shy individuals high in behavioral inhibition). A possible reformulation of the self-efficacy model based on Bandura's (1977) model would be to incorporate the interaction between shyness, self-focused attention and degree of self-efficacy in determining behavioral outcomes, that is, behavioral inhibition. One suggestion for further research is to investigate whether other personality variables also produce similar attributional patterns, as did shyness.

Such a reformulation could also take into account that shyness may have personal consequences other than *degree* of behavioral inhibition. The findings from Study III suggested that behavioral inhibition might be associated with different aspects for shy as opposed to non-shy individuals, since the results demonstrated diverging patterns of causal attributions for shy and non-shy individuals either high or low in behavioral inhibition. Specifically, non-shy individuals high in behavioral inhibition to a higher degree than their less behaviorally inhibited counterparts rated less stable causes as internal, whereas there was no significant difference between shy individuals either low or high in behavioral inhibition concerning their ratings of less stable causes. One possible explanation for these results was that behaviorally inhibited non-shy individuals may not *feel* behaviorally inhibited. They may instead act behaviorally inhibited because of other reasons, such as being concerned about other people's social comfort or trying to avoid unnecessary conflicts. Thus, the observation that someone is behaviorally inhibited may not automatically imply a higher likelihood of having lower self-efficacy beliefs. In fact, the likelihood of having higher self-efficacy beliefs

may actually be greater if that person is also non-shy. Further research is, however, needed in order to test this assumption.

The proposition that non-shy individuals may seem behaviorally inhibited but not feel inhibited received some support from the results obtained in Study IV. Both shy and non-shy individuals described their own behaviors in new social situations in much the same way, that is, they stated that they stand back and take on a more passive role. However, their thoughts concerning their respective behaviors differed. Shy individuals stated that they were concerned about other people's reactions, whereas non-shy participants stated that they took on a more passive role in order to grasp the social codes. These results indicate that although both shy and non-shy individuals might seemingly behave in a similar way, at least in new social situations, their cognitive and emotional processing of these situations may distinguish these two groups of individuals. It seems reasonable to propose that shy individuals focus on possible negative consequences of their own behaviors, for example, being negative evaluated by other people, and losses associated with these, such as being perceived as boring. On the other hand, non-shy individuals may focus on possible positive consequences of their own behaviors, e.g., being able to interact with other people in a new social environment, and associated gains, such as making new friends. The results from Study IV do, however, not implicate that shyness does not encompass shy behaviors, i.e., behavioral inhibition. Since the shy individuals included in Study IV stated that they worry about how other people will react towards them, it is, in some sense the perceived shy behavior that functions as a foundation for shy individuals' worries.

The findings from Study III also showed that participants to a higher degree rated less stable than stable causes as internal. This result was discussed in terms of degree of controllability. In other words, it is possible that seemingly stable factors, such as fear of negative evaluation, and perhaps other types of personality variables, are viewed as less controllable and therefore less internal. On the other hand, seemingly less stable causes such as being unprepared for a task might be viewed as more controllable and therefore more internal. There are theoretical models of personal and social identity that support this notion (Markus & Wulf, 1987; Turner, 1987). However, implicit in the self-efficacy model proposed by Bandura (1977) is the notion that attribution of emotional reactions to stable internal causes

relates to a lesser degree of perceived controllability, which in turn could lead to impairments in social behaviors. Therefore, a reformulation of Bandura's (1977) model should take into account, not only whether the causes are perceived as stable and internal, but also what types of causes that are stated. This conclusion is in line with the suggestion by Anderson (1991, p. 325) that "one might find attributions that have the same basic location in multidimensional space, but that belong to different categories of causes carrying different knowledge and implications for actions".

The findings from this thesis also have some methodological implications. First, one concern that was raised in connection with the discussion of the findings from Study III was that commonly used assessments of behavioral inhibition, such as specific items in the Revised Cheek and Buss Shyness Scale (RCBS; Cheek, 1983), do not include cognitions or feelings associated with these inhibited behaviors, but rather the behaviors themselves are the focal point. Furthermore, defining behavioral inhibition as excluding cognitive and emotional aspects might also have consequences for the validity of self- vs. peer- or observer-ratings of such measures. People may interpret items pertaining to behavioral inhibition in different ways depending on whether they are to rate themselves or some other person. Since the present thesis has not addressed this issue, further research is needed in order to establish to what degree shy and non-shy individuals' ratings of their own as well as of other people's behavioral inhibition tap the same phenomenon, or, indeed different phenomena.

A second methodological issue is that most research on shy and non-shy individuals' attributional patterns has not attended to the actual causes that these individuals stated, if they were free to state their own causes, but rather to their ratings of the degree to which these causes were perceived as, for instance, internal and controllable (e.g., Alfano et al., 1994; Anderson & Arnoult, 1985; Bruch & Belkin, 2001; Bruch & Pearl, 1995; J. E. Johnson et al., 1995). However, the findings from Study III indicated that the information contained in the actual causes stated by the participants contributed to the understanding of social cognitive processes in shy and non-shy individuals. To what extent shy and non-shy individuals differ in terms of how they categorize various types of causes should also be of

interest to study in future research, since such categorization may have an impact on subsequent behaviors (Anderson, 1991).

Finally, the findings from Study IV may have some clinical implications. Some of the shy individuals included in this Study stated that they had experienced identity confusion in association with their shyness. It should be noted that even though these participants had relatively high scores on two shyness measures, there was yet another shy participant with about equally high scores, who did not speak about identity confusion. To what degree identity confusion is an integral part of the shyness–experience remains an important question for future research to address.

Also, one of the identity confused shy persons described a contradictory wish to be shy and yet not be shy. This finding is particularly noteworthy since describing oneself as a shy person, as opposed to describing oneself as a person who occasionally is shy, could perhaps lead to holding on to the current level of shyness for a longer period of time in order to sustain this shy self–concept. In other words, it is possible that for some shy individuals their shyness is such an integral part of their being that the thought of decreasing their level of shyness could lead to anxiety and inquiries regarding their own identity. If this assumption is correct, it is further possible that such individuals would rather stay shy than try to become less shy. These hypotheses should prove fruitful to investigate in further research, since an increased knowledge of individual differences in shy persons' motivation for dealing with their own shyness should have important implications for the possibility to overcome shyness.

Even though one of the findings from Study IV concerned the perceived impact of having a different ethnic background on shyness it is not certain to what degree such aspects are involved in producing or sustaining shyness. Also, since there are no data on the participants' ethnic background in the present thesis it seems reasonable to impose a restriction on the generalization to individuals with a Swedish background.

To sum up, the main purpose of this thesis was to investigate how and to what degree shy individuals differ from non–shy individuals regarding their attributional patterns and the stability across various types of situations. Another aim was to investigate to what extent self–focused attention could function as an explanation of these attributional patterns. One of the reasons why it should be of

importance to further the knowledge about shy and non-shy individuals' social cognition, specifically attribution, is that the social cognitions and emotions of shy individuals may increase their level of shyness (Brodt & Zimbardo, 1981; Leary, 1986). Also, attributional patterns have been shown to be related to self-efficacy beliefs (Stempleman et al., 2005) and, in turn, these beliefs may be associated with how individuals actually behave in social settings (Bandura & Cervone, 1983; Heyman et al., 1992). According to Bandura (1977), attribution of emotional reactions to stable internal rather than to less stable internal and external causes could lead to lower self-efficacy and, in turn, a higher degree of behavioral inhibition. One question that is interesting to pose in this context is whether shy individuals to a higher degree than non-shy individuals exhibit this attributional pattern and, further, whether shy individuals who do exhibit this attributional pattern also have a higher degree of behavioral inhibition.

The present findings indicate that self-focused attention to some degree explains particular attributional patterns in shy individuals, specifically attribution of emotional reactions to stable internal causes. However, self-focused attention does not function as a sole explanation for shy individuals' attributional patterns. Instead, there might be a number of other factors that interact with shyness in determining attributional patterns, such as a focus on negative aspects of the self. The present findings also point to a need to reformulate the self-efficacy model proposed by Bandura (1977) in terms of incorporating level of shyness and what types of causes that are ascribed to emotional reactions. The present findings further raise a number of methodological questions, one of which pertains to the use of peer- or observer-ratings of shyness as a means to distinguish shy from non-shy individuals. Behavioral inhibition is one of the defining features of shyness (Cheek & Melchior, 1990), and the only feature that is readily observable (cf. the Revised Cheek and Buss Shyness Scale; Cheek, 1983). However, since behavioral inhibition seems to point to different aspects in shy and non-shy individuals, it is possible that behavioral inhibition in shy and non-shy individuals concerns different phenomena. Finally, shyness in some shy individuals seems to be associated with a weaker sense of identity, and, furthermore, with a somewhat ambiguous attitude towards their own shyness. This latter conclusion may have clinical implications since an ambiguous attitude

might encompass a lower motivation for seeking and actualizing the possibility to overcome for shyness.

To conclude, the findings presented in the four studies included in this thesis paint a somewhat different picture of how shyness is associated with social cognition compared to previous research in the field. The results presented in Study I indicate that being shy does not necessarily imply distorted social cognitions. The results revealed that shy people exhibited less of a self–other difference compared to non–shy people. The self–other difference is an attributional bias, and as such it is defined as a somewhat distorted perception of the causal chains linking different behaviors, reactions and outcomes together. The results presented in Study II indicate that being self–focused and shy means that emotional reactions are likely to be determined by stable internal causes such as personality rather than less stable internal and external causes. However, if shy people are self–focused to a lesser extent or not self–focused at all (i.e., roughly equivalent to statistically controlling for self–focused attention as was done in Study II) there is still a significant tendency for these individuals to exhibit this particular attributional pattern. The results presented in Study III indicate that degree of shyness is more important than behavioral inhibition in determining ascriptions of causes to emotional reactions, whereas degree of shyness and degree of behavioral inhibition interact in determining people’s ratings of causal locus (i.e., to what degree their freely chosen causes are perceived as caused by internal and external factors, respectively). One conclusion of these findings is that future research needs to focus on how people in everyday life really explain their own and other people’s behaviors, outcomes and reactions. Finally, the results presented in Study IV indicate that for highly shy people their shyness can be associated with identity confusion as well as with a conflicting wish to stay shy and to overcome shyness at the same time. Even though these results imply quite severe consequences of being shy, it should be pointed out that in general shyness seems to be viewed in quite a positive light. For instance, non–shy people spontaneously mentioned positive aspects of being shy and most people perceived other shy people in a rather favorable way.

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