Shyness, Social Anxiety, and Social Phobia

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Chapter 3: Shyness, Social Anxiety, and Social Phobia;

Henderson, Gilbert, and Zimbardo

Introduction

In 1971, one of us conducted the now well-known Stanford Prison Experiment (Zimbardo, 1977). The purpose of the study was to examine the role of situational factors in producing behaviors, thoughts and feelings typically assumed to manifest themselves as dispositional attributes of the person, such as sadism or submissiveness. Preselected normal college students, randomly assigned to play the roles of prisoner or guard in a simulated prison, were having such extreme reactions— extreme stress as prisoners, and brutal and sadistic behavior as guards —that they had to be released early. The study demonstrated how powerful context and situation are in producing the syndrome of affect, behavior and cognition relating to authoritarianism, aggression, submission and despair.

One of the conclusions pointed out in the post-mortem seminar and analysis of that experiment was that the coercive control that typified the guard mentality and the passive-reactive mentality of the prisoners seemed to be combined in the mental makeup of the shy person. The "guard self" issued constraining demands that limited the freedoms of the behaving aspect of the "shy self", the shy person reluctantly submitted, and thereby lost personal autonomy and a sense of personal esteem. That conceptualization led to considering the situational and personal determinants of shyness in adults, and in turn, to a long-term research program, The Stanford Shyness Program (Zimbardo, 1977). The Stanford Clinic was founded in 1977, and later renamed The Shyness Clinic. From the outset, the Shyness Clinic's programs were designed to meet the expressed needs of people in our community. Responses to the initial Stanford Shyness Survey (see appendix in Zimbardo, 1977) served as guidelines for selecting techniques to help shy individuals who sought its services. Therapists helped clients implement strategies that addressed their concerns about their negative thoughts, inhibited or overactive behaviors, painful emotions, and difficulty regulating uncomfortable physiological arousal. Over the three decades that followed, we have learned much from our interactions with clients, from our own empirical research, and emerging relevant developments in the fields of social psychology, personality theory, and clinical psychology.

In the early sections of this chapter, we will introduce you to the spectrum and psychological manifestations of types of social avoidance— from shyness to social phobia— and describe new findings about both the fluidity and discreteness of the categories. We will describe how and when shyness and its more extreme manifestations originate. Unlike previous editions, we will not address cultural variations or co-morbidity of the various categories, which can be found in *Social anxiety, second edition: Clinical, developmental, and social perspectives (2010).*

That latter portion of this chapter will be devoted to research and techniques for shyness that have informed our Shyness Clinic and the successful treatment of clients for the past several decades, including our "Social Fitness Training" and, more recently, Compassion-Focused Therapy.

Social Backdrop

During the personal growth movement, which straddled the 1970s, many people adopted the posture that it was up to us individually to make our lives better. "I can do it" captured the directives of the day: self-responsibility and self-efficacy. Following that period, psychology became increasingly medicalized. Extreme shyness was conceptualized as a psychological disorder, social phobia, a relatively rare but serious problem located in the person, which could be treated by doctors/professionals acting on the person. Unfortunately, this scheme would logically serve to increase the passivity and pessimism of those already feeling that they are helpless and passive observers of life. Our overarching treatment mission at the clinic -- one about which we are quite passionate -- has been to guide individuals in ways that empower them to help themselves. We have sought to promote in our clients the idea that they can overcome their inhibitions and become more socially comfortable and competent; indeed, even that they should do so, given that each of us, as social beings, have important and valuable contributions to make to the general community.

Due to the experience of directing the Shyness Clinic over for over 25 years, one of us developed a new model to guide our treatment program (Henderson, 1994). We operated our Clinic based on the belief that shyness, even extreme shyness, is best conceptualized as a state of inadequate "social fitness," analogous to inadequate physical fitness. We deem this analogy useful in several ways and on several levels. It allows an ecological analysis that takes into account the fit between characteristics of the individual, the individual's goals, and the demands and expectations of the social environment as each varies over time and across situations. Rather than dichotomizing people into categories of "socially phobic" or "not socially phobic," "socially anxious" or "not socially anxious," "shy" or "not shy," the model admits to a continuum for each dimension, which we believe better accords with reality: Few of us may be considered world-class social athletes, just as few are world-class physical athletes. Moreover, the model accommodates varying definitions of "world-class" across cultures, and across situations within a given culture. An example of the usefulness of the metaphor is illustrated by the fact that social fitness, like physical fitness, is importantly determined by the amount of time and effort spent exercising social skills (working out) and learning (through observation and instruction) the social norms and expectations (rules) of various socio-cultural niches (sports or games). The model also makes explicit the implicit selftheories of shyness and the degree to which being willing to see one's shyness as a malleable emotional state rather than a fixed personality trait is associated with taking advantage of social learning opportunities (Beer, 2002; Dweck, 1995, 2006). For example, arriving at college believing shyness is malleable has been associated with decreases in performance anxiety, although not with social interaction anxiety (Velentiner et al., 2011)

In the intervening time since we contributed to the first edition of this book we have added an emphasis in our work with groups on resisting the negative social stereotyping of ordinary shyness, which has grown during the last 50 years. The research of Claude Steele and others has taught us about the power of negative stereotyping on a target's level of self- consciousness (whether inside or outside awareness) and on a person's well-being in general (Davies, Spencer, & Steele, 2005; Eagly & Karau, 2002; Steele, 1997). Recent research reveals the effects of the negative stereotyping of shyness as a personality trait and the assigning of moral blame to individuals, and reframes the

problem, if there is one, as outside society (Lane, 2007; Scott, 2004). Aho (2010) writes that, "the effort to pathologize shyness tells us more about who we are in late modernity and how "normal" emotions and behaviors are socially and historically constructed than it does about neurotransmitters in the brain. It reveals the extent to which the human being should not be interpreted as an encapsulated individual with an internal dysfunction but as an engaged situated subject that is already being shaped by a background of social and historical meanings." (p. 191) He goes on to say that the problem with the DSM is that we cannot situate individual symptoms within meaningful contexts or look at why Americans value extroverted behavior and marginalize shyness. He adds that modesty and humility went out of fashion in the 20th century and were replaced an emphasis on self-expression, charm, and selling oneself as necessary to succeed in a capitalist economy (McDaniel, 2003).

We believe that it is important to help clients not only to recognize stereotyping when it is happening, and to counter it, at least internally, but to contribute to effectively educating the larger society regarding both the potential strengths of some aspects of shyness, and the harmful effects of stereotyping any temperament or personality style, all of which have particular strengths and weaknesses. Given the recent statistics that 50% to 60% of college student samples report being shy, one has to wonder to what degree the trait is adaptive, given that it occurs not only more frequently in the population, but now constitutes more than half of college student samples. A recent study of 1194 college students revealed that 36% of 58 % of self-reported shy people did not see it as a problem. In contrast to earlier studies, only 1.3 % denied ever having been shy. Strangers, people of the opposite sex, and individual authority continue to remain the biggest challenges, as they were in our earlier surveys (Carducci, Stubbins, & Bryant, 2007). Clinicians and researchers alike continue to struggle with definitional problems, and problems of convergent and discriminant validity between the constructs "shyness", "social anxiety", and "social phobia". Each of these constructs shares similarities: continua of severity are seen in each, ranging from mild, infrequent, and transitory difficulty to severe, chronic and debilitating problems. Yet, each has been used to define distinct aspects of psychological life vis-à-vis interpersonal functioning. The challenge in agreeing on definitions related to shyness will be creating and clarifying shared definitions that neither omit important components of a construct nor generalize to the extent that terms are interchangeable and thus devoid of precise meaning.

Definitions

The constructs of social anxiety, social phobia, and shyness obviously share much common ground, but the following definitions focus on the unique features of each of them.

Social Anxiety

Social anxiety is defined as a cognitive and affective experience that is triggered by the perception of possible evaluation by others (Schlenker & Leary, 1982). It includes unpleasant physiological arousal, and fear of psychological harm (Leary & Kowalski, 1995). The definition focuses on a feeling or state of arousal that is centered on interactions with others.

Social Phobia

Social phobia is defined as a "marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing" (p. xxx; Association, 2000). Although there are exceptions, a diagnosis of social phobia usually involves marked behavioral avoidance of one or more social situations. By definition, a phobia, such as a snake phobia, requires the notion of an avoidance response. A phobic response is the behavior of avoiding a feared stimulus or situation of a particular kind.

Shyness

Shyness has been defined as "a heightened state of individuation characterized by excessive egocentric preoccupation and over concern with social evaluation, ... with the consequence that the shy person inhibits, withdraws, avoids, and escapes" social interactions (Zimbardo, 1982; pp. 467- 468). William James considered shyness a basic human instinct, following Darwin (James, 1890). Izard described shyness as a discrete, fundamental emotion (1972). An emotion profile in a "shy" situation includes interest and fear, which interacts with shyness (Izard, 1972; Mosher & White, 1981). Carver and Scheier defined shyness in self-regulation terms, with unfavorable social outcome expectancies leading to disengagement in task efforts (Carver & Scheier, 1986).

While most definitions of these constructs involve discomfort and the motivation to escape situations that contribute to it, we need to acknowledge that shyness per se does not necessarily involve problematic emotion or avoidance of goals important to the shy person. One distinction to be made is that shyness may include social anxiety as an emotional component, but social anxiety does not necessarily lead to shyness behaviorally. The avoidant behavior has already been conditioned to external stimuli and is not triggered by feelings of anxiety.

Although social phobics have been described as more avoidant than the shy, these comparisons were based on samples of normal college students, and the authors pointed to the dearth of empirical studies of shyness treatment samples (Turner, Beidel & Townsley, 1990). They also reported that social phobia was defined by specific criteria while shyness was not.

Although shyness is part of common language and described both as an emotional state or trait, specific criteria for chronic problematic shyness were delineated when treatment at the Stanford Shyness Clinic was initiated in 1977. Chronic shyness was defined as "a fear of negative evaluation that was sufficient to inhibit participation in desired activities and that significantly interfered with the pursuit of personal or professional goals" (Henderson, 1992).

Recent research has supported our belief and the early findings of Turner, et al. (1990), that shyness is heterogeneous. Interestingly, many people who say they were excessively or extremely shy as children do not meet criteria for any psychiatric disorder as adults. Furthermore, 50% of people with a lifetime history of complex social phobia did not view themselves as very shy as young people (Cox, MacPherson, & Enns, 2005). Their findings were consistent with those of Heiser, Turner, and Beidel (2003) who found only modest support, at best, for a direct relationship between even extreme childhood shyness and social phobia later in life.

We believe that final definitions await descriptions of the emotional states and self- reported traits of those who refer themselves to shyness treatment in comparison

with those who refer themselves to social phobia treatment, particularly given that a somewhat different pattern of co-morbidity was revealed in our shyness clinic sample (St. Lorant, Henderson & Zimbardo, 1999).

We define chronic shyness almost entirely in terms of the person's self-report, in order to avoid an external performance standard according to which observers assign individuals to diagnostic categories. Research in personality psychology suggests that self-reports are more valid for personality traits than observer ratings, particularly among those who openly report their traits (Lamiell, 1997; St. Lorant, et al., 1999). We believe that social phobia definitions imply that significant impairment in functioning is comparable across groups. Assessment of impairment is, at best, imperfect among clinical evaluators, particularly across settings and instruments, in spite of suggested guidelines for the global assessment of functioning in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) (Association, 2000). For instance, socioeconomic status and cultural influences often constrain what shy people are able to do. Those who are not performing well in school may be constrained by extraverted teachers who value active and competitive verbal exchanges over written expression and more collaborative verbal interaction with an emphasis on listening skills (Aronson et al., 1978; Henderson, 2006). Those who appear higher functioning in some settings, by virtue of social class and privilege, may be under-achieving in relation to their peer group (Henderson, Martinez & Zimbardo, 1999).

Summary

In summary, definitions of clinical samples of shy and socially phobic individuals are similar, but show differences as well. The emotional states of both shyness and social anxiety are probably nearly universal in normative samples and people who are shy, socially anxious, or socially phobic in only one or two situations likely never present to clinicians. Such individuals may construe their distress as an intransigent temperamental factor, or simply a natural part of life. Furthermore, they may not be motivated to change if highly verbal participation or dominant assertive behavior is infrequently required in significant areas of their daily lives. Notably, adding to the literature concerning the heterogeneity of shyness, recent research has revealed a substantial proportion of highly shy people who report no social fears in diagnostic interviews (Heiser, et al., 2009).

Prevalence

Over the last 30 years, estimates of the prevalence of social phobia in the general population have increased from 2% to over 12% with 26% of women and 19% of men reporting they were "very shy" growing up (Cox, et al., 2005; Kessler et al., 2005).

Estimates of self-reported dispositional shyness, have also increased during this time frame, from 40% to 58% (Carducci, et al, 2007; Carducci & Zimbardo, 1995). Sixty-four percent of those who label themselves as shy said they do not like being shy, and 65% considered it to be a personal problem for them. More recent adolescent self-reports include rates as high as 61% (Henderson & Zimbardo, 1993).

Development of Chronic Shyness

A number of factors are seen as instrumental in the development of problematic shyness, including parental and peer rejection, and parental over-protection, leading to a lack of self-efficacy. Specific conditioning events play a role, such as being teased or shamed by teachers or other children in front of others, and observational learning, that is, viewing classmates or siblings being humiliated or harshly treated. Performance failures, traumatic events, and emotional or physical abuse or neglect also contribute (Zimbardo, 1982). The negative stereotyping of shyness in Western countries likely leads to more social avoidance.

Previous investigations of the relationship of shyness and social phobia suggested that the onset of social phobia was characterized by negative conditioning experiences while the onset of shyness was not (Turner et al., 1990). Recent findings also suggest early Behavioral Inhibition (BI) and concurrent lower family stress predict shyness during middle childhood while anxiety symptoms are predicted by BI, early family negative affect and family stress in middle childhood (Volbrecht and Goldsmith, 2010). Notably, family stress predicted higher anxiety, but lower shyness, suggesting possibly that shy children may have needed to reach beyond the family or become more assertive. The authors also stressed, as we do, the importance of distinguishing shyness from anxiety.

Shyness has also been linked to poorer vocabulary scores mediated by executive functioning skills, particularly in more stimulating home environments that are generally associated with better vocabulary skills (Blankson, O'Brien, Leerkes, & Markovitch, 2011) The authors speculated that negative arousal may interfere with cognitive control. These findings speak to the importance in families as well as schools of suiting the particular stimulation, and the timing of it, to different child temperaments rather than a "one size fits all" model. Because shy children also tend to initiate fewer interactions with teachers and do not draw attention to themselves through conflict, teachers need to

be especially alert to their needs and initiate contact with them to allow the same level of closeness that other children obtain through more bids for attention (Rudasill & Rimm-Kaufman, 2009).

Our current theory of the development of chronic and problematic shyness is based on the associations of private self-consciousness, attribution style, and negative emotional states (See Ingram for a review, 1990). Because negative affective states draw attention inward, they likely lead to the trait of private self-consciousness, which is simply the tendency to focus inward on one's thoughts and emotions. It is frequently associated with seeing the self as responsible for external events.

We have demonstrated that self-blame and shame are exacerbated by private selfconsciousness in shy adolescents and young adults (Henderson, 1992a; Henderson, 1992b; Henderson & Zimbardo, 1993). We argue that children who experience rejection, and negative emotions in response to that rejection, will focus inward, thus leading them to believe that they cause or contribute disproportionately to the negative or undesirable events occurring around them. Thinking patterns and maladaptive attributions of responsibility may be influenced by whatever emotion is present, whether fear, shyness, shame, or anger. If one is afraid, others look dangerous and the self appears vulnerable. If one is shy, others look attractive, but potentially critical and rejecting. If one does not measure up in one's own eyes and is ashamed, others appear contemptuous and the selfabased. If one is angry, other people appear untrustworthy and hurtful. These vicious attribution cycles may develop at relatively young ages (Rubin and Krasnor, 1986). We also believe that these ruminative cycles lead to negative beliefs about the self, others, and potential social transactions. In line with our theory, Trew and Alden have recently shown that rumination linked social anxiety to trait anger and also to outward anger expression (2009).

Further support is suggested by more recent research revealing that increased shame responding between preschool and school age was predicted by higher mother shaming or lower inhibition in girls and higher mother shaming if boys were very inhibited and for boys in general if fathers were also shaming (Mills et al., 2010). Girls showed more shame by school age than boys.

Consistent with our research, social phobics who attribute their condition to genetic or somatic factors have been shown to demonstrate more severe symptomatology before and after cognitive-behavioral treatment (Heimbeg & Becker., 2002). Are these findings evidence of the influence of genetic or temperament factors in social phobia? Alternatively, as we believe, are they evidence of lower self-efficacy expectations and less motivation for change than if they believe the cause of their problem has been learned and thus can be unlearned by retraining?

Empirical findings call into question the idea that inherent temperament components on the part of the shy inevitably must prevent adequate social behavior or social acceptance. Skilled social behavior by the shy has been demonstrated when their socially based shyness arousal is misattributed to an external source, such as a neutral noise source (Brodt & Zimbardo, 1981). Furthermore, a study of shy and non-shy college students involved in social interaction suggested that the actual experience of the two groups was not different. What differed was the belief on the part of the shy group that their feelings and thoughts were abnormal (Maddux, Norton & Leary, 1988). Whatever the origins of shyness, social anxiety, and social phobia, there appears to be a good deal

of room to modify social perception and social behavior, whether early or later in the life span.

Areas of Overlap

Somatic symptoms tend to be similar for shy, socially anxious, and socially phobic adults, as are frequent negative cognitions (Leary & Kowalski, 1995; Turner et al., 1990; Zimbardo, 1977). Adolescent shy clients report frequent negative thoughts, including self- blame for negative social outcomes. Interestingly, socially phobic children do not report negative cognitions with the same frequency as adults (Beidel & Morris, 1995). We found that socially anxious children had poorer recognition of selfpresentational motives and less appreciation of the links between beliefs, intentions, and emotions in faux pas situations, particularly when they were high in negative affect (Banerjee & Henderson, 2001).

Situations that present some form of perceived social difficulty are also similar across the three constructs. Socially phobic children say that the most common upsetting event for them is an "unstructured peer encounter" (Beidel, 1995). This is also among the challenging situations that are most frequently reported retrospectively by Shyness Clinic clients and normative samples of shy adults (Henderson, 1992; Zimbardo, 1977). Specific upsetting events in childhood that have led to or exacerbated social distress is also common to all three phenomena (Heimberg, Dodge & Becker, 1987; Leary & Kowalski, 1995; Zimbardo, 1977).

Age of Onset

Social anxiety is reported in elementary school (Beidel, 1995) and shy college students in treatment report a mean age of onset of 10 years for problematic shyness (Henderson, Zimbardo & Martinez, 1999). Interestingly, males with early development reported the most behavioral problems. Social withdrawal becomes noticeable in early childhood and may or may not be a precursor to later shyness or social phobia (Rubin, Coplan & Bowker, 2008). Social phobia usually begins in early to mid-adolescence, with an average age of onset of around 16 and generally has a chronic, unremitting course (Turner, et al., 1990). The second most frequent onset is elementary school, and it tends to be earlier for generalized than non-generalized social phobics (Beidel, 1995).

Interestingly, a European longitudinal study of friendship networks revealed that shy adolescents, ages 14 to 16, nominate fewer friends in the network and choose friends whose shyness level is similar. These friendships apparently tend to increase shyness over time and girls appear to be more affected, which may lead to more serious avoidance (Besic, et al., unpolished manuscript). However, other research shows that both younger and older shy children have equal numbers of reciprocated friendships as the non-shy. Besic, et al. also assumed that popularity and numbers of friends was of paramount importance, which is an assumption that has been seriously questioned, and they did not look at the quality of friendships (Ladd & Burgess, 1999; Rubin et al., 2006).

Social phobia researchers have understandably reasoned that shyness started much earlier than social phobia given the results of infant studies in which evidence of "behavioral inhibition" was seen as early as 21 months (Kagan & Reznick, 1986; Turner et al., 1990). Most researchers agree, however, that behavioral inhibition is a precursor to shyness in some children, but is demonstrably not in a significant proportion of them, nor is it a stable trait (Cheek, 1982; Henderson & Zimbardo, 2010).

Researchers have begun to study risk-taking and aggressiveness in shy and socially anxious individuals (Kashdan, 2009; Hutteman et al., 2009). A multi-wave longitudinal study revealed that children who were shy at age 6 were less aggressive at 7 and those at 8 less aggressive at age 10, but from age 17 on the relationship reversed and shy adolescents were more aggressive five years later, but only in adolescents with low levels of support from parents and who spent minimal time in part time work (Hutteman et al., 2009).

Adolescent Onset

Adolescence appears to be the age of onset for many kinds of social anxiety, phobic avoidance, and chronic shyness. Perspective-taking ability has been seen as one of the major reasons, in that awareness of discrepancies between the perspectives of others and the view of the self can promote painful negative social comparisons. The accuracy of perspective taking in relation to the self, however, appears to vary both in shy children and adults (Alden & Wallace, 1991; Rubin & Asendorpf, 1993).

Self-blaming tendencies may lead to misperceptions of others' views of the self (Henderson & Zimbardo, 1993). Increased interpersonal avoidance also limits opportunities for feedback that can counter negative self-perceptions and provide occasions for receiving constructive feedback.

Negative social comparisons with more extroverted others may exert considerable influence on the development of chronic shyness and social phobia in adolescence. It will be important, to continue to differentiate shyness, social phobia, and social anxiety in

children and adolescents, because the phenomenology and precursors may differ in systematic ways.

Individual Differences in Shy and Socially Phobic Individuals

Shyness has been conceptualized as more heterogeneous than social phobia (Turner et al., 1990). The heterogeneous appearance of shyness may reflect not only the continuum of mild defensive caution to extreme fears and social inhibition, but also the different domains of difficulty found in shyness. Some people report few negative thoughts, but are inhibited and avoidant; others report physiological responses that interfere with cognitive processing; still others report a great deal of worry, but display little overt behavioral difficulty. Some report the presence of negative emotions like shame and resentment, but little physiological arousal (Henderson, 1992). Clinical observation also reveals many socially anxious individuals who attribute their anxiety to more general feelings of insecurity, denying both shyness and phobic tendencies.

Research with social phobics, however, has also revealed considerable heterogeneity in levels of social anxiety, social skill, degree of avoidance, and physiological arousal (Beidel & Morris, 1995; Heimberg, et al, 1995; Hofmann & Roth, 1996). Heterogeneity in social phobia may be related to degree of social anxiety, transient states of shyness vs. trait- shyness, and degree of phobic avoidance or behavioral inhibition.

The behavior genetics concept of "niche picking," that is, selecting the environment most suited to one's traits may be the factor that separates problematic shyness, social anxiety, and social phobia from adaptive shyness, transient social anxiety, and transient social avoidance (Rowe, 1997; Scarr & McCartney, 1983; Xinyin, Rubin &

Boshu, 1995). Communal and collaborative environments rather than highly competitive or authoritarian environments that place a strong value on personal dominance, may provide more and better opportunities for the contributions of the shy.

Subgroups

These observations have led to several attempts to define subgroups. For example, Buss classified fearful shy individuals vs. self-conscious shys (Buss, 1986). In the former group, fear of novelty and autonomic reactivity is hypothesized to be the major component; in the latter group, it is excessive awareness of public aspects of one's self. Pilkonis (1977) distinguished the privately shy from the publicly shy. The privately shy were socially skilled but self-doubting and uncomfortable, the publicly shy were more visibly uncomfortable and less skilled.

Zimbardo (1977) divided shy individuals into two groups, shy introverts and shy extraverts. Shy introverts often preferred to be alone, liking ideas and inanimate objects. Turner, Beidel and Townsley (1990) speculated that this group in the extreme resembled schizoid personality disorder and indeed this diagnostic group may comprise a proportion of our clinic sample. These individuals do, however, report desiring at least some connection with others.

The second group Zimbardo (1977) identified was socially skilled, but suffered internally, constrained by social expectations and concerned about social rules. Turner, Beidel and Townsley (1990) speculated that these were the most likely candidates for social phobia, being both sociable and shy. Shy extroverts appeared to function best in highly structured situations where everyone knew and played their roles as expected.

Many talk show hosts, standup comedians, and professors in large lecture courses rather than seminars report being shy.

More recent attempts to specify subgroups include the identification of two SAD subgroups, those who appear to be low or high in novelty-seeking (Kashdan & Hofmann, 2008). Women are less likely to be found in the high-novelty-seeking group and clinician severity ratings for comorbid substance abuse disorders are higher. Risk-prone and disinhibited behavior also appear to be more prevalent in the high-novelty-seeking group (Kashdan & Hofmann, 2008). There is greater functional impairment and they tend to do less well in treatment (Kashdan & McKnight, 2010). While research with undergraduates (349) reveals a weak, but significant negative correlation between social anxiety and psychopathic attributes (Hofmann, Korte, & Suvak, 2009) this subgroup appears to be found in samples with SAD. Males had more psychopathic attributes than females in the college student sample as well as the clinical sample.

Characteristics of Shy and Socially Phobic Individuals

Somatic symptoms

Heart palpitations, shakiness, blushing, muscle twitching, sweating, and urinary urgency are reported by social phobics and are also common physiological responses in shy and socially anxious college students and in our clinic patients (Beidel, Turner & Dancu, 1985; Henderson, 1992; Zimbardo, 1977). However, there are fewer reports of nausea and chills among adult social phobics and shyness clinic clients than reported for socially phobic children (Beidel, Christ & Long, 1991). Parental ratings of shyness and higher heart rates in a stressful task have been modestly correlated in children. There are, however, some contradictory findings (Henderson & Zimbardo, 2010). No differences

between social phobics, the shy and the non-shy were shown on physiological measures in other studies, although the shy and the socially phobic perceived more arousal (Edelman & Baker, 2002; Heiser, et al., 2009). Socially anxious college students showed the same pattern during a public speaking task, (Mauss & Gross, 2004). In our clinic sample cardiac rates have not been measured directly, but most of our clients report high subjective anxiety ratings when engaging in simulations of feared social situations.

The exception is a small group of clients who report little somatic distress and low subjective anxiety ratings during simulated exposures. These clients tend to be behaviorally passive in interaction and often initiate little social contact outside the context of the group. We wonder if these individuals resemble the adult version of passive isolation in familiar situations (Rubin & Asendorpf, 1993). This pattern may be related to the reciprocal effect of biological differences interacting with growing psychological inhibition in the face of rejection and negative experiences.

Cognitive Features and Perception

The cognitive components of shyness, social anxiety, and social phobia have been the subject of considerable interest over the past 30 years. Early clinical observation and empirical studies revealed a plethora of findings regarding the tendencies to: 1) worry; 2) to regard normal experiences of shyness as shameful and unacceptable; 3) to be preoccupied to the point of interference with performance and empathic behavior; 4) to appraise interpersonal situations in threatening ways; and, 5) to make maladaptive attributions for social behavior (Beidel et al.,; Carducci & Zimbardo, 1995; Cheek, 1982; Our clients demonstrate a double standard in that they do not judge others, including other group members, for responses such as blushing, for which they expect negative judgment for their reactions. Recent research has also revealed a double standard wherein socially anxious women expect to be judged for acknowledging anxiety more than others would be judged, while simultaneously understanding the likelihood of negative social outcomes for hiding anxiety, which emotion-suppression research confirms (Voncken, Alden & Bogels. 2006).

Self-blaming attributions are common in our shyness clinic clients, as are entrenched negative beliefs about the self. There are also frequent negative thoughts and beliefs about others. We have developed a new scale called the Estimations of Others Scale (EOS) to assess these negative thoughts and beliefs (Henderson & Horowitz, 1998). The scale has high internal reliability (.91 alpha) in a college student sample. Shy students score significantly higher on this scale than the non-shy, and clinic clients score significantly higher than the students.

Our research on perceptions of facial expressions of emotions has revealed that shy college students and Asian American students are slower to recognize disgusted facial expressions than the non-shy, appearing less, not more sensitive to social threat emotions, in contrast to our original prediction (Henderson, Kurita & Zimbardo, 2006). Asian Americans were slower to recognize facial expressions of anger than the non-shy and the shy group did not differ from Asian Americans or the non-shy. Groups did not differ in sensitivity to fear, surprise or sadness, and the shy and the Asian Americans were slower to recognize happiness. Earlier research had shown that shy and Asian Americans tend to value harmony and are higher in interdependent self-construals (Markus, Mullally, & Kitiyama, 1997). In addition, they have a more reflective intellectual style that may make them less willing to acknowledge social threat emotions until they are obvious and the context is considered, particularly if they are not directed at them. We also suggest that less sensitivity to happiness expressions may be related to valuing pleasant vs. high intensity positive emotion (Henderson, Kurita & Zimbardo, 2006).

Consistent with our original hypotheses, however, that shy individuals would be more sensitive to facial expressions of emotion, and therefore recognize facial expressions earlier in the development of an emotion, Beaton, Schmidt, Shulkin, & Hall (2010) studying neural responses to faces with different emotional expressions, found that shy individuals showed higher neural activation than the non-shy across a number of brain loci and a range of emotions. These authors were using full-blown emotion expressions, however, not a range of expressions from slight to full blown, consistent with earlier research showing increased amygdala activation to angry and contemptuous faces in generalized social phobia (Stein et al, 2002).

Another hypothesis is that there may be avoidance reactions or suppression of emotion that may take longer processing time. Young and Brunet (2011) found that undergraduates' sociability, but not shyness, was related to categorizing faces accurately when presentation time was limited, but not when unlimited. Three categories of sociability were identified, high, medium, and low. Those in the medium and low groups performed more poorly when facial expressions of emotion were viewed in rapid succession, but not when time was unlimited. The largest difference in performance between rapid and unlimited presentation was seen in the low sociable group. High sociables were more accurate than the lows and did not differ across rapid and unlimited presentations. Shyness and sociability are proposed to be distinct constructs (Cheek & Buss, 1981) and the authors suggest that it may be the low sociability that is the disadvantage in terms of judging facial emotions, not shyness per se.

It also appears that 10 year old children whose parents rated them as shy had a more difficult time discriminating facial expressions based on the spacing of features, but not in differentiating faces based on the appearance of facial features or faces' external contours (Brunet, Mondloch, & Schmidt, 2010). Using teacher reports of 337 preschoolers' shyness in Head Start, Strand, Cerna and Downs (2008) found that shyness predicted worse facial recognition scores for angry emotions, but not for happy, sad, and afraid emotions as depicted in photographs, and shyness predicted less improvement in scores for all four emotions over a six-month time period. The authors speculated that the tendency to avoid may affect the social learning process. However, shyness was unrelated to recognition of schematic drawings of facial emotions and to emotional perspective taking. People high in trait anxiety more generally appear more likely to have their attention drawn to expressions of fear, but have their attention held by expressions of anger (Fox, Matthews, Calder, & Yiend, 2007)

Of note, however, is a recent study children with Social Phobia, High Functioning Autism and normal controls (ages 7-13 years), wherein no evidence was found for negative interpretation biases in children with SP or HFA who were similar to normal controls (Wong, Beidel, Sarver, & Sims, 2012). Children with HFA were less accurate in detecting mild affective expressions than controls. Behavioral ratings of social skill and social anxiety were not associated with facial affect recognition ability. Interestingly, shyness is correlated with empathic concern, which has recently been shown to be related

to accuracy of fear recognition at brief exposures (Besel & Yuille, 2010), and accuracy of fear recognition has been related to prosocial behavior (Marsh et al., 2007). Kashdan, Weeks, and Savostayanova (2011) also found that individuals with SAD did not have impaired memory for positive facial expression and had equally good memory for positive facial expressions as negative ones, and better recall and recognition for facial expressions more generally. Foa (2000) had found earlier that those with SAD were faster in identifying previously seen facial expressions of happiness than other emotions.

Affective Features

Compared to normative samples, shy clients report considerably higher levels of social anxiety, shame, guilt, depression, and resentment, with higher levels of shame and anger predicting passive aggression (Henderson & Zimbardo, 1998, August). However, embarrassment is correlated with shyness in normative samples (Crozier & Russell, 1992). In contrast, one-third of an extremely shy group without social phobia reported no social fears during a diagnostic interview (Heiser, et al., 2009). Social anxiety, depression-related emotions and embarrassment are frequently reported in the social phobia treatment literature (Turner, et al., 1990). The study of negative emotionality in socially anxious children is a growing area of research (Banerjee & Henderson, 2001) and shyness in children has been related to verbal embarrassment attributions to a negative audience and to non-verbal embarrassment attributions to positive, negative and neutral audiences (Colunnesi, Engelhard, & Bogels, 2010).

Behavior

Behaviors associated with chronic shyness are similar to those associated with social anxiety and generalized social phobia, that is, shy people speak less in social settings, less often initiate new topics of conversation, avert their gazes, exhibit nervous mannerisms, and show fewer facial expressions (Leary & Kowalski, 1995; Turner & Beidel, 1989; Zimbardo, 1977). The exception is alcohol use. Social phobics appear to be more likely to use alcohol to reduce social anxiety (Schneier, Martin & Liebowitz, 1989; Bruch et al., 1992). Shy behaviors are usually described by shys and observers alike as reticent, quiet, awkward, or overactive (Cheek,; Zimbardo, 1982). Shy college students are less visible and less assertive in the work place, and are less likely to use career-planning resources (Cheek & Busch, 1981). They display less verbal fluency and fewer leadership skills. They also show less verbal creativity when faced with evaluation (Cheek & Stahl, 1986).

Conversations between the shy are dominated by talk about the immediate physical/social setting rather than talking about themselves and leave ambiguous who is to speak next (Manning & Ray, 1993). The exception to this is for "favored" topics that are discussed extensively. Shy individuals are less self-disclosing, even to the point of telling physicians and psychologists too little about problem areas to obtain adequate help (Zimbardo & Piccione, 1985). Genuine self-disclosure may also involve the risk of communicating negative thoughts and feelings about the self, which increases inhibition (Henderson, 1992).

When we consider non-verbal behavior, shy people keep others at a greater physical distance than those who are less shy (about 12 inches further away). The difference is greater with an opposite sex stranger than with a same sex stranger, and when a stranger is coming toward them than when they are moving toward the stranger (Zimbardo, 1977). They maintain minimal eye contact and little smiling, have a closed, "defensive" posture, low speaking voice, and constrained bodily movements, with minimal hand and arm gesturing (Zimbardo, 1977). These can be often be changed with simple instruction and practice. Interestingly, Scott et al., based on their own experimental practices during a research project, have suggested that sociology researchers who experience shyness when doing field research can more openly discuss strategies to help manage the "dramaturgical stress" that goes along with the improvisation that is necessary in the field while maintaining high performance standards (2012). Recent research on judging approachability has also emphasized the importance of having one's facial expression match one's body expression because the meaning of the body expression appears to be highly dependent on the valence of the associated facial expression (Willis, Palermo, & Brooke, 2011).

However, a study of socially anxious college students conducted by Alden and Bieling (1998) reveals that negative behaviors can be readily changed when negative appraisals of social situations are altered by an experimental manipulation. When told that their personality profiles were similar to their conversational partners, indicating that they would easily relate well to each other, anxious individuals were indistinguishable from non-anxious individuals in likeableness, appropriateness, and similarity.

More recent research has also shown that socially anxious individuals around close friends are likely to engage in more relationship-promoting behaviors and are seen as more socially competent (Pontari, 2009). However, Baker & McNulty (2010) found that shyness was related to lower levels of relationship self-efficacy and marital relationship satisfaction, with self-efficacy mediating the effect. Interestingly, and in contrast, partner shyness was unrelated to marital problems or marital satisfaction. Moreover, changing self-efficacy cognitions is achievable and has shown a relationship to treatment success (Guidiano & Herbert, 2003). Notably, however, shy college students reported equivalent emotional self-disclosure in romantic relationships as the non-shy in a recent study and shyness was associated with a romantic and calm love style (Erwin & Pressler, 2011).

Another surprising and fascinating recent finding is that emotional expressions of shame were relatively sexually attractive in both men and women and male shame more attractive when standard scores were used (Tracy & Beall, 2011). Younger women found male shame more attractive than male happiness and not much less attractive than male pride. Happiness was the most attractive in women (Tracy & Beall, 2011). The authors cited evolutionary theory with shame displays ... "signaling of the expressor's respect for social norms..." (Gilbert, 2007) with an appeasement message possibly indicating trustworthiness, particularly in males for whom it may be seen as more potentially costly, therefore indicating sincerity (Zahavi & Zahavi, 1997).

Moreover, clinical observation has suggested that when shy clients are not selffocused, their behavior is indistinguishable from non-shys and is often highly skilled. These observations lend at least clinical credence to the idea that behavioral deficits may disappear when critical self-consciousness is reduced and shy clients are focused on a cooperative task with others. A key is the external focus on a task rather than internal focus on self or self under scrutiny by others—that is a shyness elicitor.

Family Characteristics

Parenting characteristics that may promote shyness are controlling, insensitive, or over- protective styles that involve frequent correction and shaming (Bruch, 1989). Social

phobics who report parental overprotection are less responsive to the behavior of a conversation partner, and their failure to respond to friendly overtures leads to rejection (Alden & Taylor, 2006). Many patients report minimal social interaction with peers, and a lack of family support for such interaction. Some also report little interaction with family friends or relatives. Because extended family socializing predicts less shyness in young adults (Bruch, 1989), parental sociability in itself appears conducive to preventing shyness in children.

Engfer (1993) found that parents of shy children were less sensitive to children's expressed needs and more prone to use strongly assertive strategies. Hane, Cheah, Rubin, & Fox found that children of mothers who rated them as socially reticent at age four were more socially withdrawn at age seven when mothers were not positive, and observed social reticence was associated with greater social withdrawal when mothers were very negative; a better social outcome was found for preschoolers when mothers were positive (2008).

The self-critical tendencies of shy adults may be the result of restrictiveness and rejection by parents because these parental behaviors have been shown to be related to the development of self-criticism in adolescents more generally, particularly when received from the same-sex parent (Koestner, Zuroff & Powers, 1991). Self-criticism remains stable into young adulthood for women, but not for men. However, men exhibit a relationship between self-criticism and inhibited aggressive impulses.

Shyness and the Workplace

While articles are few, shyness is beginning to be studied in the workplace. A study in Tokyo, Japan, revealed that shyness was a negative predictor of students'

expectations regarding three of five aspects of organizational citizenship behavior: conscientiousness; protecting company resources; and altruism toward colleagues–but not of identification with the company and interpersonal harmony (Ueda, 2010). However, the author separated out sensitivity to rejection, which is one of the key features of shyness as conceptualized in the U.S., and sensitivity to rejection positively predicted protecting company resources and interpersonal harmony. Additionally, work experience reduced dispositional associations. A Japanese scale was used and it will be important to tease apart cultural differences in the perceived meanings of items as cross-cultural research in this area increases. Taking a more social psychological stance for a moment, there is an interesting study out of Turkey that shows that work environments that encourage cooperation, friendliness, and harmony among employees and emphasize positive work relationships are positively associated with well-being and negatively associated with employee loneliness (Erdil & Ertosun, 2011). One would think shyness could be reduced as well under those situational facilitators.

Shyness and Technology Use

There is an increasing body of research on the relationship between shyness and technology use. In a study of American undergraduates, no direct association between shyness and instant messaging use was found, and shyness was associated with using IM for personal contact and social ease, as it was for others, but shyness was also associated with using IM to decrease loneliness more than to other motives (Bardi & Brady, 2010). Shy individuals also appear to be more motivated to use the internet for social reasons than the non-shy (Saunders, 2012). A study of university students in Hong Kong revealed that shyness was positively associated with the frequency of asynchronous CMC media

use, such as email and social network site use, as was predicted, but, surprisingly, was not negatively associated with synchronous use, such as instant messaging and chat, as had also been hypothesized. However, those who were both shy and sociable were less likely to use synchronous CMC media, that is, instant messaging and chat (Chan, 2011).

Facebook

Shyness in has been correlated with being a non-user on Facebook (sample age range 19-76), as was loneliness and being less socially active (Sheldon, 2012), in contrast to other research suggesting online environments were more comfortable for the shy (Roberts, Smith, and Pollock, 2000). Non-users in the Sheldon study were also lower in aspects of sensation seeking (2012). A study of Australian internet users between 18 and 44 (1158 Facebook users and 166 non-users) also revealed that non-users tended to be more shy and socially lonely than users, who tended to be more extraverted and narcissistic, but less conscientious. Of note, users tended to be higher in family loneliness (Ryan & Xenos, 2011). However, Orr et al. (2009) reported that shyness in a sample of undergraduates was positively related to time spent on Facebook, and positive attitudes toward the site, but negatively associated with the number of Facebook friends. Baker and Oswald, who also studied undergraduates, showed that shyness and Facebook use were unrelated, but when shy individuals did use Facebook, use was associated with satisfaction and closeness and increased social support from friends on Facebook (2010). Roberts et al. also found that shyness decreased overall, not just in the on-line environment. Interestingly, rumination and passive Facebook use were associated with scores on the Social Phobia Scale and rumination partially explained the positive association between passive use and SPS scores (Shaw, et al., 2012).

Treatment

Treatments for shyness, social anxiety, and social phobia generally include cognitive restructuring, social skills training, and role-plays of threatening situations (Heimberg & Becker, 2002). A meta-analysis of social phobia treatment suggested that both cognitive and behavior therapy treatments were effective for social phobia and some researchers suggest that exposure appears to be the most powerful mechanism for producing ameliorative change (Feske & Chambless, 1995; Turner & Beidel, 1992). Two studies of social anxiety treatment have concluded that treatment is useful and that response to treatment is not significantly differentiated by approach or modality (DiGiuseppe, McGowan, Simon & Gardner, 1990; Leary & Kowalski, 1995). However, one carefully controlled study demonstrated that exposures with cognitive restructuring were superior to exposures without cognitive restructuring for severe social phobia (Mattick, Peters & Clarke, 1989). A more recent randomized controlled trial showed equivalent changes from pre-test to post-test with exposure group therapy with and without cognitive interventions, and treatment groups were superior to a wait list control. However, at 6-month follow-up, only the cognitive behavioral group continued to improve, which was associated with reduced estimations of social cost (Hofmann, 2004). Using a comprehensive psychological maintenance theoretical model of SAD, Hofmann maintains that cognitive factors play a large role in the development and maintenance of SAD. Socially anxious individuals set unrealistic social standards and goals and, when encountering a challenging social situation, focus on their anxiety, see themselves negatively, overestimate the negative consequences of social interactions, believe they

cannot control their emotional response, and view their social skills as inadequate to cope. Rumination after the fact leads to more anxiety and concern (Hofmann, 2007).

This model is consistent with Henderson's social fitness model in that private self-awareness (self-focus) moderates the self-blame and shame that occurs after social interactions and is associated with increased social avoidance (Henderson, 2002). When specific challenges to self-blaming attributions are used in treatment there is a significant reduction in both self-blame and shame at post-test. These findings have not, however, been tested in controlled trials.

Acceptance and Commitment Therapy (ACT), is now used with an increasing number of psychological difficulties including social anxiety. Clients are encouraged to engage in valued behavior before reducing anxiety and to change the relationship between cognitions and behavior rather than to change the content of cognitions themselves. Dalrymple and Herbert conducted a 12-week pilot study of 19 participants diagnosed with SAD, integrating exposure therapy and ACT, obtaining a large effect size in the reduction of social anxiety symptoms and in increased quality of life (2007). Reductions in experiential avoidance also predicted later reductions in severity of symptoms, consistent with ACT theoretical expectations that tolerating difficult emotions leads to greater perceived control in the long run. A shortcoming of the study was a lack of a wait list control group.

These findings call into question how important cognitive restructuring is from the point of view of actually changing the content of thoughts and beliefs. Another recent pilot study without a wait list control from this research group (Yuen et al., 2012) demonstrated the efficacy and feasibility of online acceptance-based exposure therapy for

14 participants who completed treatment with SAD in a virtual environment in Second Life, a downloadable application that can be installed on a personal computer. Clients interacted with clinical staff as confederate role-players through avatars. With very large effect sizes, the treatment reduced social anxiety symptoms, avoidance and depression and improved quality of life. This exciting finding awaits replication with a larger sample, and with more information on the characteristics of the sample.

In addition, our Social Fitness Training model has been tested online with 296 participants who were randomly allocated to one of three treatment conditions: individual group (who completed the nine modules online), discussion group (who completed the nine modules online but were also asked to contribute to a discussion board) or wait-list control group. Participants completed psychological measures of shyness, social phobia, estimations of others, quality of life, and depression pre and post intervention. 34% of participants in the individual group and 27% of participants in the discussion group completed the entire 9-week program. Results revealed that there was a significant reduction in shyness, social phobia and negative automatic thoughts about others as measured by the estimation of others scale in the individual and discussion groups compared to the control group after completion of the online Social Fitness program. There were no differences between the individual groups and discussion groups (Saunders, 2011). There were no significant changes in quality of life and depression scores, but there was no attributional restructuring in this treatment, which heretofore has predicted reductions in depression.

A recent meta-analysis of ACT vs. CBT included a study of participants with subclinical social anxiety. Comparing six group sessions of ACT vs. CBT, they found

that the participants from the ACT group performed significantly better on a public speaking task, while self-report measures were equivalent (Ruiz, 2012).

Fourteen individuals with SAD who completed Mindfulness-Based Stress Reduction (MBSR) revealed decreased anxiety and depression and increased self-esteem. During a breath-focused attention task (but not a distraction task) they showed reduced amygdala activity and increased activity in brain areas involved in attentional deployment, signaling reduced emotional reactivity and enhanced emotion regulation (Goldin & Gross, 2010). A recent meta-analytic review of the effect of Mindfulness-Based Therapy on anxiety and depression more generally revealed large and robust effect sizes for anxiety and mood symptoms, which were maintained at follow-up (mean = 27 weeks) (Hofmann et al., 2010). Cognitive-Behavioral Therapy (CBT) is also efficacious for adult anxiety disorders according to a meta-analysis of randomized placebo-controlled trials (Hofmann & Smits, 2008).

A recent review article aimed to broaden treatment and theoretical and research efforts to include focus on the enhancement of positive experiences has suggested mining social psychology research for exercises to enhance positive attitudes, reactions, and behavior (Kashdan, Weeks, & Savostayanova, 2011).

It has long been recognized that those with extreme shyness and social anxiety are afraid of positive as well as negative experiences, and disqualify the positive after social interactions and receiving positive feedback. One of the strategies we have used in our shyness groups is having the group member maintain eye contact with the confederate giving feedback in order to increase the likelihood that they will actually internalize the warmth as well as the positive feedback. We also have brag sessions in which each group member reports at least one thing they have done that they feel good about in a given week. Acknowledging strengths and specific positive behaviors in exposures is also practiced regularly, as are mindfulness exercises. Gratitude and forgiveness exercises are also used, and, with the advent of adding a compassion focus to social fitness training, we are also using compassionate imagery exercises, and addressing the fear of compassion as well as the fear of positive experiences and positive feedback. Along these same lines we work with compassionate self-correction, instead of self-criticism, which helps clients acknowledge and focus on their strengths. Compassionate self-correction also helps them tailor feedback for themselves for possible next social steps as closely as possible to their current readiness.

An important treatment consideration involves assessing the degree to which shyness or social phobia is a consequence of inadequate social skills, or symptomatology related to other disorders. Skill deficiencies need to be differentiated from inhibition or anxious behavior, and addressed in treatment. We agree with Caballo and Turner (1994), for example, who indicated that physical self-care may need to be addressed, particularly among those who fear dating. In contrast, high-functioning individuals with Asperger's Syndrome will exhibit shy behavior, but primarily need very concrete social skills training.

Butler (1995) noted that social phobics in treatment enter feared situations, but disengage using subtle strategies such as avoiding eye contact. Some clients achieve more effective desensitization when simply asked to "stay in the moment" during conversation role- plays (Henderson, 1999). Wallace and Alden (1997) suggest that self-

protective motivation accounts for continued avoidance of feared situations in spite of successful exposures.

Cognitive restructuring may fail to demonstrate impressive response rates in many studies because treatment may often neglect negative attributions and beliefs about the self and others that accompany severe shyness and social phobia. We believe that the frequent relapse seen in studies of social phobia is at least partially due to inadequately addressed maladaptive attribution styles and negative beliefs. Consequently, since the early nineties we have included a specific focus in our treatment on negative attributions and negative beliefs about the self and others. We also focus on the negative emotions that these attributions and beliefs engender: shame if the beliefs are about the self, and resentment and hurt if they are about others. Therapists also help clients link thoughts and emotions to early experiences in order to help clients develop insight into their anxiety and motives for interpersonal avoidance.

Addressing Attribution Style in Treatment and Assessing Results

We address self-blame and shame in social fitness training, as well as how the presence of private self-awareness exacerbates painful emotion and unsupportive thinking. We developed specific challenges to negative attributions and beliefs about the self and applied such challenges concomitantly with the usual cognitive restructuring techniques during exposures to feared situations and have gathered data regarding the results of attribution retraining.

Pre- and post- testing of shyness clinic clients in 26-week groups has revealed that internal, global, stable, and self-blaming attributions in clients' three most challenging situations are significantly and substantially reduced in treatment, as is shame.

Interestingly, shy students who were in an eight-week treatment at Stanford, who were also higher in general fearfulness, according to the fear scale of Buss and Plomin's EAS Temperament Survey for Adults (Buss & Plomin, 1984), were the most self-blaming of the shy at pre-test. These results are sufficiently interesting to warrant more-extensive investigation in relation to sub-groups of shy clients.

A telephone follow-up study of clients treated between 1994 and 1999 also revealed that clients, on the average, were maintaining treatment gains in the form of reduced distress and avoidance, but with considerable variability. It is that variability which motivates our efforts to identify subgroups and to develop more specific treatment strategies for particular individuals, as well as new methods for enhancing treatment generalizability. Naturalistic investigations of shyness clinic samples have also revealed that a coping style that is primarily internalizing predicts better outcomes in Social Fitness Training. In addition, a flexible coping style, that is, being able to use both internalizing and externalizing coping strategies flexibly is an additive predictor in reducing shyness as measured by our clinically sensitive shyness questionnaire, the ShyQ. (Clinton, 2009; Henderson & Zimbardo, 2002; Kimpara, Henderson & Beutler, 2008).

We also think that the approach of Beutler (2009) is better for assessing treatment outcome than to rely solely on the results of randomized control treatment comparisons of different structured treatments. He found few differences in benefits to patients after reviewing meta-analytic studies and a large mega-analysis comparing empirically supported treatments (ESTs) and treatment as usual conditions (TAUs). Effect sizes associated with comparisons between and among structured treatments also approximated zero (Beutler, 2009). He argues, therefore, that not all research questions are effectively addressed with RCT designs, and has demonstrated that several patient moderating variables increase the power of treatments to produce benefits. Thus, Social Fitness Training was found to produce a strong effect size (d = .85) among internalizing patients (Clinton, 2009). Beutler integrates multiple research and statistical methods to study variables that include not only treatment variables, but also client and therapist variables, the treatment alliance, and treatment compatibility.

Shyness Clinic Treatment

The Shyness Clinic was a freestanding fee-for-service organization that functioned on a private practice model until the clinic was moved to Pacific Graduate School of Psychology in CA in 2007, which was re-named Palo Alto University in 2009. This move enabled us to train graduate students as well as post-graduates and practicing psychologists. Students also had access to our clinic database for research studies. Research findings from personality theory, social psychology and clinical psychology are used to inform techniques we use with clients. Although the major therapeutic work was done in small groups, prior to group assignment there was an initial evaluation of three to seven individual sessions depending on the degree of comorbidity.

Groups were mixed gender and include six to eight participants, who met weekly for two hours over 26 sessions. The first 13 weeks consisted primarily of simulated exposures to feared situations, and included reports of behavioral homework and goal setting for the following week. Clients also conducted homework assignments together, in pairs or small groups, such as, telephoning each other, challenging each other's negative thoughts, and attending events together. In-group exposures involved other clients, research assistants and volunteers who played the roles of conversational partners, employers, dating partners, and others. Group members and confederates provided feedback in the form of indicating which specific behaviors could be changed or eliminated in order to make them feel more comfortable. Specific skills for providing and receiving helpful versus non-helpful feedback were taught throughout this period. Another strong emphasis of the educative component was that the quality of social interactions are negotiated and relative: the goal is for clients to learn to see themselves as one of the definers and initiators of social interactions, rather than attempting to follow perceived performance "rules" that "everyone else knows" and will be imposed upon them.

The second 13 weeks was directed toward specific skill training to address the areas of difficulty experienced by extremely shy clients. Self-disclosure, listening skills, expressing feelings verbally and nonverbally, trust-building, handling criticism, negotiation, anger management, and assertiveness training were among the topics included. Clients role-played various situations in small groups in order to practice these skills with treatment "partners" with whom they were becoming more intimate. This serves as a model for deepening friendships and developing intimacy as well as navigating relationships in particular contexts, such as on the job, meeting new people, and dating. Videotaping was provided for some group exercises and interactions, if clients were open to it. As clients self-disclosed earlier experiences that led to their shyness to group members, therapists helped clients link these experiences to current fear and avoidance.

In addition to the focus on behavioral skill training, we try to create a safe place, a large "sandbox" where clients can experiment, practice, and play. Playing includes non-verbal exercises taken from theater improvisation and sensitivity training groups in order for clients to learn to "live in their bodies," creating a greater sense of physical and emotional freedom. Attention is given to how clients hold themselves, their posture and walk, in order to help them understand what they are communicating non-verbally to others and to themselves, and to facilitate the making of deliberate choices regarding their non-verbal communication.

Shy clients tend to be over ideational, they ruminate at great length about their performance in social situations, which not only perpetuates painful emotional states, but also interferes with taking action. These exercises help them to trust themselves more at a "gut" level. We also help them experiment with deliberately altering attentional focus. They practice interactions in which 1) they are focused on paying attention to how they are doing in the conversation, 2) on internal states, and 3) on the other person by looking for interesting things about the other and areas they have in common. These exercises afford clients the opportunity to experience for themselves what is most pleasurable about social interactions, and to discuss the differences in these experiences. Learning how to give and how to receive compliments is also a vital skill we promote in sessions. The exposures and skill-building components of the group are based on social cognitive theory, which stresses both the development of competency and cognitive-emotional selfregulation (Bandura, 1997). Rules and strategies guide action though observational learning, exploration, instruction, and original cognitive syntheses of information, and skill execution varies with changing situations and purposes (p. 34). While reinforcement,

non-reward, and modeling have been demonstrated to lead to the learning of social norms and behavior (Bandura, 2008), social cognitive theory presupposes a more complex and reciprocal causality among people and between people and the environment. Perceived self-efficacy is pivotal because it influences motivation and choice of activities. Selfefficacy plays an essential role in behavioral persistence in the face of challenging social tasks. If clients can increase their sense of personal self-efficacy in the form of taking responsibility for their behavior, but not for social outcomes over which they have no control, they are more likely to maintain the cognitive, emotional, and behavioral gains that accrue in treatment.

Interpersonal process theory provides an additional theoretical framework during the second 13 weeks (Leary, 1957). Harry Stack Sullivan (1953) suggested that peer relationships were the foundation of respect, interpersonal sensitivity and cooperation. He emphasized special close relationships in particular as places where mutuality and reciprocity develop. Given that shyness appears to be related to friends' lower relationship satisfaction if shy individuals are not seen as effective communicators we feel that a focus on the practice of communications skills in one on one peer relationships is important, whether they lack them or just do not express them when socially anxious (Arroyo & Harwood, 2011). We also use interpersonal motives theory to inform therapists' responses to clients' bids to be led or dominated (Horowitz, et al., 2006). Therapists take care to gently counter bids to be led or dominated with egalitarian behavior and invitations to collaborate and lead in learning together.

Because extremely shy adults are often withdrawing by adolescence, providing a place to experiment socially in the safety of the group is likely to enable clients to utilize

their own cognitive and emotional resources more effectively. They also have the opportunity to experience some emotional security through the process of interaction in the group, helping to provide a model of mutuality and reciprocity on which they can continue to build. Clients use the model to guide their practice in current homework exercises, and can continue to use it in future non-therapeutic settings and relationships. We are also working to develop a more systematic focus on mindfulness and compassion (Henderson, 2011), based on the current research and clinical work of Paul Gilbert (2009). We are encouraged by findings that spirituality more generally has been positively associated with self-esteem, positive affect and meaning in life and spirituality on one day predicted meaning in life the next day (Kashdan & Nezlek, 2012). It is important to note, however, that the effectiveness of mindfulness and a compassion focus is unrelated to spirituality.

A Compassion-Focused Therapy Approach

There are three key themes to the CFT. First is that humans are part of the flow of life and we have brains that have evolved to function in particular ways. Like other animals we have basic motivations for relating, forming attachments to our offspring, forming attachments to our parents, seeking out peer groups and friendships, finding sexual relationships, fighting over resources and opportunities, and developing status hierarchies. In addition, however, about 2 million years ago humans began evolving a range of cognitive abilities for imagination, anticipation, rumination, reflection, and also a completely new and objective sense of self. These have had an amazing impact on the world, leading to our creations of science and technology that now dominate the planet. But these same psychological competencies also create damaging mind-loops that can be

very dysfunctional. An example CFT often uses is this: If a zebra has been running from a lion and got away, within a short time it will return to herding and grazing. Humans, however, are likely to create all kinds imaginations —"Oh my goodness can you imagine what would have happened if I had got caught!! I would have been eaten alive!! Can you imagine the pain and horror of that!!" They might wake up in the middle of the night in a sweat imagining it or worrying about what happens if they see the lion tomorrow or what happens if their children get taken. The "what would happen if …" brain has allowed us to anticipate all kinds of problems but also creates runninative loops. Anger and vengeance, and lust too, can all get stuck in dysfunctional loops that are difficult to break.

A second element of evolutionary thinking is our ability to imagine ourselves in the minds of others. Now, as far as we know, animals can be fearful of others and watch out for signs of aggression, but they don't create elaborate fantasies in their minds about how other people see them, or how they have been judged, or all the things they can do to impress and create positive images of themselves in the minds of others. Animals obviously have 'attracting displays' particularly in sexual domains, but don't have a full range of focus on displays (of beauty, humor, intelligence, kindness etc.) to try to stimulate emotions about the self in others. Yet so much of our human social behavior is display behavior with the intent of stimulating emotions in the minds of others – shyness is caught in this dynamic. So again the new brain competencies can cause loops when people become fearful of the images they are creating and worried about being rejected or put down, and begin ruminating about their 'image' and trying to imagine how to change their presentations. The second core feature of the evolutionary story is the recognition that life is difficult and often involves tragedies and suffering that comes to us out of the blue. For example we all gradually decay, get old with various aches and pains and loss of function and eventually die. This is not exactly a pleasant prospect -but we are all in this boat. It's called the boat of common humanity.

The third key theme is that all of us are socially created. CFT uses the example that if the therapist had been kidnapped by a violent drug gang as a three-day-old baby then he or she certainly wouldn't be a therapist now. They would probably a violent drug gangster themselves!! The version of themselves as a compassionate therapist would never have come to life nor have being cultivated. We are socially created and so it is very important not to get carried away by an illusion of the self that identifies one particular version that has been socially created in one particular environment at one particular point in history

So when it comes to the experience of loops in the mind that can be very painful and trap us in anxiety and shame, the nature of impermanence and suffering, and the fact that none of us chooses the versions of ourselves that we become -- this allows us to help people recognize that what is going on in the mind is not their fault.

This is fundamental to the de-shaming and de-pathologizing process. The therapist starts with what we all have in common not with the patient's pathology or difficulties. The experience of "what you're feeling is not your fault" can be very liberating, but of course it opens the gate to taking responsibility for changing and starting to choose the version of ourselves we want to become. Here we borrow from Buddhism and other traditions where *cultivating a sense of self on purpose* is core to the

art of becoming. If we don't make these choices, then the versions of self we become will be dependent upon purely the social context in which we exist.

From there the therapist explains the importance of social affiliation to the human lineage. This is a more technical process but basically highlights the fact that we have three types of emotion: one that is threat-focused, such as anger and anxiety; one that is achievement-focused, such as joy excitement, and pleasure; and one that is contentmentand friendship-focused, such as peaceful well-being. With the evolution of attachment it was the closeness and comfort of the parent that was able to calm and soothe the infant. We are biologically set up to feel contentment and to be calmed down by the kindness of others. It turns out that it is also true for our relationships with ourselves -- that the kinder and more supportive and understanding we are with ourselves the better we feel.

Thus, CFT is highlighting the value of developing compassion as a way of organizing our brains and minds. Compassion can be defined *as a sensitivity to suffering in ourselves and others with a commitment to try to relieve and prevent it.* This actually involves two very different psychologies. The first is a sensitivity, which involves turning towards and engaging with that which is causing pain, in contrast to turning away, denying, and trying to avoid it. The second psychology involves the process of alleviation, which is not the process of avoidance, but genuine alleviation or acceptance and tolerance of suffering. Using the three principles of the flow of life above, we can understand the sources and nature of suffering. We are then in a position to think about how to alleviate it.

Here we engage with a range of compassion-focused exercises that work with cultivating compassionate motivation, compassionate behavior, compassionate thinking,

compassionate feeling, and sensorimotor awareness. So we can use various interventions including those that use method acting techniques to help people imagine what it would be like if they were at their most compassionate - to become the compassionate self. There are various breathing techniques, body posture techniques and other focusing processes to help people create this. Compassion focusing involves imagining sending compassion to oneself or others.

Another compassionate imagery exercise is to focus on imagining an ideal compassionate other being compassionate to oneself, and imagining the kinds of things they would say, and the ways they would say them. Basically all of these techniques are helping to refocus individuals out of unhelpful loops and preoccupations, and into evolved care-based mentalities and affect systems, which reduce threat related emotions.

In CFT we sometimes find that people can cognitively refocus and understand how to think in different ways about their difficulty and behaviorally engage in exposures but are unable to generate compassionate feeling in the process. They may actually start to engage in the change process in a somewhat self-bullying way; this is particularly true if they tend to be self-critical (and shy and socially anxious people often are). It may be important then not to over-rely on cognitive interventions without ensuring that there is a genuinely encouraging supportive, empathic and, indeed, kind tone to their alternative thoughts.

Social Fitness Model

We have chosen social fitness, including Compassion-Focused Therapy, and now calling it Compassionate Social Fitness as our model of helping people deal with shyness, social anxiety, and social phobia because it best fits our goal to transfer research and theory from social, evolutionary and personality psychology into behavioral, cognitive, and emotional regulation strategies that help individuals thrive in social interaction. As individuals learn about the strategies and the theory behind them, practice new behaviors that are informed by them, and then practice those behaviors in their own lives outside the clinic, we believe they will become increasingly "socially fit." Perhaps more importantly, they will, in a sense, become practicing social researchers not only to develop an understanding of their own social fitness, as we have understood it, but also to contribute further to theory and new practices themselves. They often do this after graduation through continuing homework exercises, such as meeting with other graduates for coffee and goal setting, telephoning/texting/twittering each other, or meeting for support and consultation.

The concept of social fitness provides an umbrella term within an evolutionary framework that is continuous and dynamic, including many levels of social competence and incompetence, social comfort and discomfort. Nevertheless, it contains categories that are phenomenologically discrete, such as personality types. Moreover, finding one's social "sport" or niche may involve matching discrete differences in personality to situations in which these characteristics are seen as strengths. We have noted previously that shyness, social anxiety, and social phobia appear to be, at least to a certain extent, discrete. They are phenomenologically different from each other, according to the differing self-reports of people who endorse one, but not the others, as appropriate to their self-construals. It is also apparent that there is considerable variability in stimulus situations that trigger these reactions, as well as the nature and features of the reactions. Using our physical fitness analogy as an example, both a long-distance runner and a tennis player may be highly coordinated and athletic along a continuum of genetic capabilities and a state of physical fitness earned through considerable effort, disciplined practice, and persistence. However, a tennis player is not a long-distance runner, and the two sports require some differing capabilities, different types of conditioning and practice, and perhaps temperamental differences. Furthermore, there are many ways in which to be physically fit and to enjoy one's own physical health and well-being -- by jogging, hiking, surfing, playing soccer, volleyball, or football. Analogously, social fitness implies some measure of learned skill and a belief that one is "fit" enough to slip and fall, lose a surfboard, miss a goal, bungle a shot, make an error, or even be tackled with someone's full weight, and not only recover, but learn from the experience, trusting that one can still play, individually, and on the team.

Whether socially anxious, shy, or phobic regarding social situations, people can achieve some measure of social fitness and social success by choosing activities and situations to pursue that are suited to their individual temperaments. They can also understand that "temperament" is sometimes a word for well-ingrained habit patterns developed adaptively in situations that were traumatic or non-rewarding, but no longer serve a useful purpose. As behavior change in social fitness training occurs, along with new emotions and revised emotional and cognitive understandings, new "temperament" variables may appear.

In working with shyness groups over the years, LH has been sufficiently impressed with certain personality traits, such as ethical and caring behavior toward others, which incoming group members already possess, that she has undertaken an interview study of "shy leaders." People are interviewed who are known to be outstanding leaders, either locally or in larger contexts and who report that they are shy. Interviews are also conducted with at least one associate. Using independent ratings of transcribed interviews by the author and two researchers according to personality questionnaires, we are attempting to delineate the particular strengths of shy leaders. Pilot results suggest they tend to lead from behind and let others take the spotlight, are careful observers of people, attentive listeners, are empathic, and feel strongly about their values in relation to their work. They are motivated, determinedly persevering, strategic and genuine, over-prepare for public speaking tasks, push past shyness to get the job done, and are somewhat androgynous, showing both masculine and feminine traits. They may be more likely than others to be recruited into leadership roles, rather than to seek them, and some report cultivating certain kinds of self-assertion.

Consistent with our observations, Kurtz and Tiegreen (1984) have shown that the Big Five personality variables of agreeableness and openness to experience as measured by the NEO-PI-R are significantly correlated with ego development. Interestingly, the facet scale scores that were most predictive of ego development were Aesthetics and Modesty. Both are qualities we see consistently in our shyness clients, and qualities that are associated with shyness in the research literature (Ziller & Rorer, 1985). Shy leaders who are effective in achieving their goals and those of their association, while also modest, may allow others to share credit for success and thus build better team morale.

In conclusion, we believe that the pursuit of social fitness is an idealized quest in support of the overall health of individuals, cultures, and the planet as a whole. We know that social support networks are the best prophylactics against the negative effects on the

body, mind, and spirit associated with social isolation. Social fitness should contribute to increasing the vitality of these networks. Personal social fitness in a healthy social ecology is essential for enhancing meaningful social support and thereby, to strengthening the bonds of the human connection.

References

- Aho, K. (2010). The psychopathology of American shyness: A hermaneutic reading. Journal for the Theory of Social Behavior, 40, 190-202.
- Alden, L. E., & Taylor, C. T. (2006). Parental overprotection and interpersonal behavior in generalized social phobia. Behavior Therapy, 37, 14-24.
- Alden, L. E., & Wallace, S. T. (1991). Social standards and social withdrawal. Cognitive Therapy and Research, 15, 85-100.
- Aronson, E., Blaney, N., Stephan, C., Sikes, J., & Snapp, M. (1978). The jigsaw classroom. Beverly Hills, CA: Sage.
- Arroyo, Analisa, & Harwood, J.. (2011). Communication competence mediates the link between shyness and relational quality. *Personality and individual differences*, 50, 264-267.
- Asendorpf, J. B., & Meier, G. H. (1993). Personality effects on children's speech in everyday life: Sociability-mediated exposure and shyness-mediated reactivity to social situations. *Journal of Personality and Social Psychology*, 64, 1072-1083.
- Association, A. P. (2000). *Diagnostic and Statistical Manual of Mental Disorders*. (4th TR, ed.). Washingon, DC: American Psychiatric Association.
- Baker, L., & McNulty, J. K. (2010). Shyness and marriage: Does shyness shape even established relationships? *Personality and Social Psychology Bulletin, 36*, 665-676.
- Baker, L. R., & Oswald, D. L. (2010). Shyness and online social networking services. Journal of Social and Personal Relationships, 27, 873-889.

Bandura, A. (1997). Self-efficacy, the exercise of control. New York: W. H. Freeman.

- Bandura, A. (2008). Toward an agentic theory of the self. In H. Marsh, R. G. Craven & McInerney (Eds.), Self-Processes, Learning, and Enabling Human Potential: Dynamic New Approaches (Vol. 2, pp. 15-49). Charlotte, NC: Information Age Publishing.
- Banerjee, R., & Henderson, L. (2001). Social-cognitive factors in childhood social anxiety: A preliminary investigation. *Social Development*, 10, 558-572.
- Bardi, C. A., & Brady, M. F. (2010). Why shy people use instant messaging: Loneliness and other motives. *Computers in Human Behavior*, *26*, 1722-1726.
- Beaton, E. A., Schmidt, L. A., Schulkin, J., & Hall, G. B. (2010). Neural correlates of implicit processing of facial emotions in shy adults. *Personality and individual differences*, 49, 755-761.
- Beer, J. S. (2002). Implicit self-theories of shyness. Journal of Personality and Social Psychology, 80, 1009-1024.
- Beidel, D. C., Christ, M. A. G., & Long, P. J. (1991). Somatic complaints in anxious children. *Journal of Abnormal Child Psychology*, 19, 659-670.
- Beidel, D. C., & Morris, T. L. (1995). Social Phobia. In J. S. March (Ed.), Anxiety disorders in children and adolescents (pp. 181-211). New York: Guilford Press.
- Beidel, D. C., Turner, S. M., & Dancu, C. V. (1985). Physiological, cognitive and behavioral aspects of social anxiety. *Behavioral Research and Therapy*, 23, 109-117.

- Besel, L. D. S., & Yuille, J. C. (2010). Individual differences in empathy: The role of facial expression recognition. *Personality and individual differences*, 49, 1070-1112.
- Beutler, Larry E. (2009). Making science matter in clinical practice: Redefining psychotherapy. *Clinical Psychology: Science and Practice, 16*, 301-317.
- Blankson, A. N., O'Brien, M., Leerkes, E. M., & Marcovitch, S. (2011). Shyness and vocabulary: The roles of executive functioning and home environmental stimulation. *Merrill-Palmer Quarterly*, 57, 105-128.
- Brodt, S. E., & Zimbardo, P. G. (1981). Modifying shyness-related social behavior through symptom misattribution. *Journal of Personality and Social Psychology*, 41, 437-449.
- Bruch, M. A. (1989). Familial and developmental antecedents of social phobia: issues and findings. *Clinical Psychology Review*, 9, 37-47.
- Bruch, M. A., Heimberg, R. G., Harvey, C., McCann, M., Mahone, M., & Slavkin, S. L. (1992). Shyness, Alcohol Expectancies, and Alcohol Use: Discovery of a Suppressor Effect. *Journal of Research in Personality*, 26, 137-149.
- Brunet, P. M., Mondloch, C. J., & Schmidt, L. A. (2010). Shy children are less sensitive to some cues to facial recognition. *Child Pschiatry Human Development*, 41, 1-14.
- Buss, A. H. (1986). Two kinds of shyness. In Schwarzer (Ed.), Self-related cognition in anxiety and motivation (pp. 65-75). Hillsdale, NJ: Erlbaum.
- Buss, A. H., & Plomin, R. (1984). Temperament: Early developing personality traits.Hillsdale, NJ: Erlbaum.

- Butler, G., & Wells, A. (1995). Cognitive-behavioral treatments: clinical applications. In
 R. Heimberg, M. Liebowitz, D. Hope, & F. Schneier (Eds.), *Social phobia: Diagnosis, assessment and treatment* (pp. 310-333). New York: Guilford Press.
- Caballo, V. E., & Turner, R. M. (1994). Behavioral, cognitive and emotional differences between social phobic and non-phobic people. Paper presented at the AABT 28th Annual Convention, San Diego, CA.
- Carducci, B. J., & Zimbardo, P. G. (1995, November/December). Are you shy? *Psychology Today*, 34-40; 64; 66; 68.
- Carducci, B. J., Stubbins, Q. A., & Bryant, M. R. (2007). Still shy after all these (30) years, Poster presented at the American Psychological Association, 115th National Conference Boston, MA.
- Carver, C. S., & Scheier, M. F. (1986). Analyzing shyness: A specific application of broader self-regulatory principles. In W. H. Jones, J. M. Cheek, & S. R. Briggs (Eds.), *Shyness: Perspectives on research and treatment* (pp. 173-185). New York: Plenum Press.
- Chan, M. (2011). Shyness, sociability, and hte role of media synchronicity in the use of computer-mediated communication for interpersonal communication. *Asian Journal of Social Psychology, 14*, 84-80.
- Cheek, J. M., & Briggs, S. R. (1982). Self-consciousness and aspects of identity, *Journal* of Research in Personality, 16, 401-408.
- Cheek, J. M., & Busch, C. M. (1981). The influence of shyness on loneliness in a new situation. *Personality and Social Psychology Bulletin*, 7, 572-577.

- Cheek, J. M., & Stahl, S. S. (1986). Shyness and verbal creativity. *Journal of Research in Personality*, 20, 51-61.
- Clinton, D. (2009). An Archival Study Examining the Effects and Interactions of Coping and Attributional Styles upon Treatment with a Chronically Shy Population.
 (PhD), Pacific Graduate School of Psychology.
- Colonnesi, C., Engelhard, I. M., & Bogels, S. M. (2010). Development in children's attribution of embarrassment and the relationship with theory of mind and shyness. *Cognition and Emotion, 24*, 514-521.
- Cox, B. J., MacPherson, P. S. R., & Enns, M. W. (2005). Psychiatric correlates of childhood shyness in a nationally representative sample. *Behaviour Research and Therapy*, 43, 1019-1027.
- Crozier, W. R., & Russell, D. (1992). Blushing, embarrassability and self- consciousness. *British Journal of Social Psychology*, 31(4), 343-349.
- Dalrymple, K. L., & Herbert, J. D. (2007). Acceptance and commitment therpy for generalized social anxiety disorder. *Behavior Modification*, *31*, 543-568.
- Davies, P. G., Spencer, S. J., & Steele, C. M. (2005). Clearing the air: Identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of Personality and Social Psychology*, 88, 276-287.
- DiGiuseppe, R., McGowan, L., Simon, K., & Gardner, F. (1990). A comparative outcome study of four cognitive therapies in the treatment of social anxiety. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 8, 129-146.
- Dweck, C. S. (2006). *Mindset: The new psychology of success* (Ist ed.). New York: Random House.

- Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*, *6*, 267-285.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109, 573-598.
- Engfer, A. (1993). Antecedents and consequences of shyness in boys and girls: A 6- year longitudinal study. In K. H. Rubin & J. B. Asendorpf (Eds.), *Social withdrawal, inhibition and shyness in childhood* (pp. 49-79). Hillsdale, NJ: Erlbaum.
- Erdil, O., & Ertosun, O. G. (2011). The relationshiop between social climate and loneliness in the workplace and effects on employee well-being. *Procedia Social* and Behavioral Sciences, 24, 505-525.
- Erwin, P. G., & Pressler, S. J. (2011). Love styles, shyness, and patterns of emotional self-disclosure. *Psychological Reports*, *108*, 737-742.
- Feske, U., & Chambless, D. L. (1995). Cognitive behavioral versus exposure only treatment for social phobia: A meta-analysis. *Behavior Therapy*, 26, 695-720.
- Fox, E., Mathews, A., Calder, A. J., & Yiend, J. (2007). Anxiery and sensitivity to gaze direction in emotionally expressive faces. *Emotion*, 7, 478-486.
- Gilbert, P. (2007). The evolution of shame as a marker for relationship security: A biopsychosocial approach. In J. L. Tracy, R. W. Robins & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research*. New York: Guilford Press.

Gilbert, P. (2009). The compassionate mind. London: Constable. Greene, R. L. (1991).

Goldin, P., Ramel, W., & Gross, J. (2009). Mindfulness Meditation Training and Self Referential Processing in Social Anxiety Disorder: Behavioral and Neural Effects.
 Journal of Cognitive Psychotherapy, 23, 242-257.

- Hane, A. A., Cheah, C., Rubin, K. H., & Fox, N. A. (2008). The role of maternal behavior in the relation between shyness and social reticence in early childhood and social withdrawal in middle childhood. *Social Development*.
- Heimberg, R. G. (2002). Cognitive-behavioral therapy for social anxiety disorder:Current status and future directions. *Biological Psychiatry*, *51*, 101-108.
- Heimberg, R.G, & Becker, R. E. (2002). Cognitive-behavioral group therapy for social phobia: Basic Mechanisms and Clinical Strategies. New York, NY: Guilford Press.
- Heiser, N. A., Turner, S. M., Beidel, D. C., & Roberson-Nay, R. (2009). Differentiating social phobia from shyness. *Journal of Anxiety Disorders*, 23, 469-476.
- Henderson, L. (1992). Shyness Groups. In M. McKay & K. Paleg (Eds.), Focal Group Psychotherapy, Oakland, CA: New Harbinger Press.
- Henderson, L. (2002). Fearfulness predicts self-blame and shame in shyness. *Personality and Individual Differences*, 32, 79-93.
- Henderson, L. (2006, Winter). Gifted and shy. Duke Gifted Letter, 6, 5, 10.
- Henderson, L. (2011). Building social confidence using compassion-focused therapy to overcome shyness and social anxiety. Oakland, CA: New Harbinger Publications, Inc.
- Henderson, L., & Horowitz, L. M. (1998). The Estimations of Others Scale (EOS): Shyness Institute.
- Henderson, L., Kurita, K., & Zimbardo, P. (2006). Shyness and communal vs.individualistic orientations: Sensitivity to emotion, Poster presented at theAssociation for Cognitive and Behavioral Therapies. Chicago, IL.

- Henderson, L., Martinez, A., & Zimbardo, P. (1999). Social fitness training with attribution and self-concept restructuring; preliminary data with a college student population. Unpublished manuscript, Department of psychology, Stanford University, http:///www.shyness.com.
- Henderson, L., & Zimbardo, P. (1993, March). Self-blame attributions in shys vs. nonshys in a high-school sample. Paper presented at the annual conference of the Anxiety Disorders Association of America, Charleston, South Carolina.
- Henderson, L., & Zimbardo, P. (1998, August). Trouble in river city: shame and anger in chronic shyness. Paper presented at the American Psychological Association, 106th National Conference, San Francisco, CA.
- Henderson, L., & Zimbardo, P. (2002, April). Dimensions of shyness: The ShyQ. Paper presented at the 82nd Annual Convention of the Western Psychological Association, Irvine, CA.
- Henderson, L., & Zimbardo, P. (2010). Shyness, social anxiety, and social anxiety disorder. In S. G. H. P. M. DiBartolo (Ed.), *Social anxiety, second edition: Clinical, developmental, and social perspectives* (pp. 65-93). London, UK: Elsevier, Inc.
- Hofmann, S. G. (2004). Cognitive mediation of treatment change in social phobia. *Journal of Consulting & Clinical Psychology*, 72(3), 392-399. doi: 10.1037/0022-006X.72.3.392
- Hofmann, S. G. (2007). Enhancing exposure-based therapy from a translational research perspective. *Behaviour Research and Therapy*, *45*, 1987-2001.

- Hofmann, S. G. (2007). Cognitve factors that maintain social anxiety disorder: A comprehensive model and its treatment implications. *Cognitive Behavioral Therapy*, 36, 193-209.
- Hofmann, S. G., & Roth, W. T. (1996). Issues related to social anxiety among controls in social phobia research. *Behavior Therapy*, 27, 79-91.

Hofmann, S. G., Korte, K. J., & Suvak, M. K. (2009). The upside of being socially anxious: Psychopathic attributes and social anxiety are negatively associated. *Journal of Social and Clinical Psychology*, 28, 714-727. doi:10.1521/jscp.2009.28.6.714

- Hofmann, S. G., Sawyer, A. T., Witt, A. T., & Oh, D. (2010). The effect of mindfulnessbased therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting & Clinical Psychology*, 78, 169-183. doi:10.1037/a0018555
- Hofmann, S. G., & Smits, J. A. (2008). Cognitive-behavioral therapy for adult anxiety disorders: A meta-analysis of randomized placebo-controlled trials. *Journal of Clinical Psychiatry*, 69, 621-632.
- Horowitz, L., Wilson, K., Turan, B., Zolotsev, P., Constantino, M., & Henderson, L.
 (2006). How interpersonal motives help clarify the meaning of an interpersonal behavior: A revised circumplex model. *Personality and Social Psychology Review*, 10, 67-86.
- Hutteman, R., Denissen, J. J.A., Asendorpf, J. B., & Van Aken, M. A.G. (2009).
 Changing dynamics in problematic personality: A multiwave longitudinal study of the relationship between shyness and aggressiveness from childhood to early adulthood. *Development and Psychopathology, 21*, 1083-1094.

Ingram, R. E. (1990). Self-focused attention in clinical disorders: Review and a conceptual model. *Psychological Bulletin*, 107(2), 156-176.

Izard, C. E. (1972). Patterns of emotions. New York: Academic Press, Inc.

- James, W. (1890). The principles of psychology. (Vol. 2). New York: Holt.
- Kagan, J., & Reznick, J. S. (1986). Shyness and temperament. In W. H. Jones, J. M. Cheek, & S. R. Briggs (Eds.), *Shyness: Perspectives on research and treatment* (pp. 81-90). New York: Plenum.
- Kashdan, T. B., Weeks, J. W., & Savostyanova, A. A. (2011). Whether, how, and when social anxiety shapes positive experiences and events: A self-regulatory framework and treatment implications. *Clinical Psychology Review*, 31, 786-799.
- Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, 62, 617-627.
- Kimpara, S., Henderson, L., & Beutler, L. (2008). [A naturalistic study of the effectiveness of a treatment for chronic shyness and social phobia] Unpublished manuscript.
- Koestner, R., Zuroff, D. C., & Powers, T. A. (1991). Family origins of adolescent selfcriticism and its continuity into adulthood. *Journal of Abnormal Psychology*, 100(2), 191-197.
- Kurtz, J. E., & Tiegreen, S. B. (2005). Matters of conscience and conscientiousness: The place of ego development in the Five Factor Model. *Journal of Personality Assessment*, 85, 312-317.

- Ladd, G. W., & Burgess, K. B. (1999). Charting the relationship trajectories of aggressive, withdrawn, and aggressive/withdrawn children during early grade school. *Child Development*, 70, 910-929.
- Lamiell, J. T. (1997). Individuals and the differences between them. In R. Hogan, J.Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 117-141).San Diego, CA: Academic Press.
- Leary, T. F. (1957). Interpersonal diagnosis of personality. New York: Ronald Press.
- Leary, M., & Kowalski, R. (1995). Social Anxiety. New York: The Guilford Press.
- Maddux, J. E., Norton, L. W., & Leary, M. R. (1988). Cognitive components of social anxiety: An investigation of the integration of self-presentation theory and selfefficacy theory. *Journal of Social and Clinical Psychology*, 6, 180-190.
- Manning, P., & Ray, G. (1993). Shyness, self-confidence, and social interaction. Social Psychology Quarterly, 56, 178-192.
- Markus, H. R., Mullally, P., & Kitayama, S. (1997). Selfways: Diversity in modes of cultural participation. In U. Neisser & D. Jopling (Eds.), *The conceptual self in context: Culture, experience, self-understanding*. Cambridge: Cambridge University Press.
- Marsh, A. A., Kozak, M. N., & Ambady, N. (2007). Accurate identifiation of fear facial expressions predicts prosocial behavior. *Emotion, 49*, 107-112.
- Mattick, R. P., Peters, L., & Clarke, J. C. (1989). Exposure and cognitive restructuring for social phobia: A controlled study. *Behavior Therapy*, 20, 3-23.

- Mauss, I. B., Wilhelm, F. H., & Gross, J. J. (2004). Is there less to social anxiety than meets the eye? Emotion experience, expression, and bodily responding. *Cognition and Emotion*, 18, 631-662.
- McDaniel, P. (2003). Shrinking violets and Caspar Milquetoasts: Shyness, power, and intimacy in the United States. New York: New York University Press.
- Mills, R. S. L., Arbeau, K. A., Lall, D. I. K., & De Jaeger, A. E. (2010). Parenting and child characteristics in the prediction of shame in early and middle childhood. *Merrill-Palmer Quarterly*, 56, 500-528.
- Mosher, D. L., & White, B. B. (1981). On differentiating shame and shyness. *Motivation and Emotion*, 5, 61-74.
- Orr, E. S., Sisic, M., Ross, C., Simmering, M. G., Arseneault, J. M., & Orr, R. R. (2009). The influence of shyness on the use of facebook in an undergraduate sample. *CyberPsychology & Behavior, 12*, 337-340.
- Pontari, B. A. (2009). Appearing socially competent: The effects of a friend's presence on the socially anxious. *Personality and Social Psychology Bulletin, 35*, 283-294.
- Pilkonis, P. A. (1977). Shyness, public and private, and its relationship to other measures of social behavior. *Journal of Personality*, 45, 585-595.
- Rowe, D. C. (1997). Genetics, temperament, and personality. In R. Hogan, J. Johnson, &
 S. Briggs (Eds.), *Handbook of Personality Psychology*. San Diego, CA: Academic Press.
- Rubin, K. H., & Asendorpf, J. B. (1993). Social withdrawal, inhibition, and shyness in childhood: Conceptual and methodological issues. In K. H. Rubin & J. B.

Asendorpf (Eds.), *Social withdrawal, inhibition and shyness in childhood* (pp. 359). Hillsdale, New Jersey: Lawrence Erlbaum.

- Rubin, K. H., Coplan, R. J., & Bowker, J. C. (2008). Social withdrawal in childhood. *Annual Review of Psychology*, 60, 11.11 - 11.31.
- Rubin, K. H., & Krasnor, L. R. (1986). Social-cognitive and social-behavioral perspectives on problem solving. In M. Perlmutter (Ed.), *Cognitive perspectives on children's social and behavioral development*. The Minnesota Symposia on Child Psychology, 18, 1-68. Hillsdale, NJ: Erlbaum.
- Rubin, K. H., Wojslawowicz, J. C., Rose-Krasnor, L., Booth-LaForce, C., & Burgess, K.
 B. (2006). The best friendships of shy/withdrawn children: Prevalence, stability, and relationship quality. *Journal of Abnormal Child Psychology*, *34*, 143-157.
- Rudasill, K. M., & Rimm-Kaufman, S. E. (2009). Teacher–child relationship quality: The roles of child temperament and teacher–child interactions. *Early Childhood Research Quarterly*, 24, 107-120.
- Ryan, T., & Xenos, S. (2011). Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage. *Computers in Human Behavior, 27*, 1658-1664.
- Saunders, P. L. (2012). Shyness online: The experience and treatment of shyness in an online environment (Unpublished doctoral dissertation). RMIT University, Melbourne, Australia.
- Scarr, S., & McCartney, K. (1983). How people make their own environments: A theory of genotype > environmental effects. *Child Development*, 54, 424-435.

- Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and self-presentation: A conceptualization and model. *Psychological Bulletin*, 92, 641-669.
- Schneier, F. R., Martin, L. Y., Liebowitz, M. R., & al, e. (1989). Alcohol abuse in social phobia. *Journal of Anxiety Disorders*, 3, 15-23.
- Scott, S., Hinton-Smith, T., Harma, V., & Broome, K. (2012). The reluctant researcher: Shyness in the field. *Qualitative Research*, 1-20.

Shaw, A. M., Timpano, K. R., Tran, T. B., & Joorman, J. (2012). Social anxiety, Facebook, and rumination: What pattern of social networking predicts social anxiety? Paper presented at the Association for Behavioral and Cognitive Therapies, National Harbor, MD.

- Sheldon, P. (2012). Profiling the non-users: Examination of life-position indicators, sensation seeking, shyness, and loneliness among users and non-users of social network sites. *Computers in Human Behavior, 28*, 1960-1965.
- St. Lorant, T., Henderson, L., & Zimbardo, P. (2000). Co-morbidity in chronic shyness. Depression and Anxiety, 12, 232-237.

Steele, C. (1997). A threat in the air. American Psychologist, 52, 613-629.

- Stein, M. B., Goldin, P. R., Sareen, J., Eyler Zorilla, L. T., & Brown, G. G. (2002). Increased amygdala activation to angry and contemptuous faces in Generalized Social Phobia. *Archives of General Psychiatry*, 59, 1027-1034.
- Strand, P. S., Cerna, S., & Downs, A. (2008). Shyness and emotion-processing skills in preschoolers: A 6-month longitudinal study. *Infant and Child Development*, 17, 109-120.

Sullivan, H. S. (1953). The interpersonal theory of psychiatry. New York: Norton.

- Trew, J. L., & Alden, L. (2009). Predicting anger in social anxiety: The mediating role of rumination. *Behaviour Research and Therapy*, 1-6.
- Turner, S., & Beidel, D. C. (1992). Reduction of fear in social phobics: an examination of extinction patterns. *Behavior Therapy*, 23, 389-403.
- Turner, S. M., Beidel, D. C., & Townsley, R. M. (1990). Social phobia: Relationship to shyness. *Behaviour Research and Therapy*, 28, 497-505.
- Valentiner, D. P., Mounts, N. S., Durik, A. M., & Gier-Lonsway, S. L. (2011). Shyness mindset: Applying mindset theory to the domain of inhibited social behavior. *Personality and individual differences*, 50, 1174-1179.
- Volbrecht, M. M., & Goldsmith, H. H. (2010). Early temperamental and family predictors of shyness and anxiety. *Developmental Psychology*, *46*, 1192-1205.
- Voncken, M. J., Alden, L. E., & Bogels, S. M. (2006). Hiding anxiety versus acknowledgment of anxiety in social interaction: Relationship with social anxiety. *Behaviour Research and Therapy*, 44, 1673-1679.
- Wallace, S. T., & Alden, L. E. (1997). Social phobia and positive social events: The price of success. *Journal of Abnormal Psychology*, 106, 416-424.
- Willis, M. L., Palermo, R., & Burke, D. (2011). Judging approachability on the face of it: The influence of face and body expressions on the perception of approachability. *Emotion*, 11, 514-523.
- Xinyin, C., Rubin, K. H., & Boshu, L. (1995). Social and school adjustment of shy and aggressive children in China. *Development and Psychopathology*, 7, 337-349.

- Young, M. E., & Brunet, P. M. (2011). It's about time: The influence of sociability but not shyness - on the categorization of facial expressions of emotion. *Journal of Individual Differences*, 32, 65-73.
- Yuen, E. K., Herbert, J. D., Forman, E. M., Goetter, E. M., Comer, R., & Bradley, J.-C.
 (2012). Treatment of social anxiety disorder using online virtual environments in second life. *Behavior Therapy*, 1-11. doi: 10.1016/j.beth.2012.06.001
- Zahavi, A., & Zahavi, A. (1997). *The handicap principle*. New York: Oxford University Press.
- Zhao, J., Kong, F., & Wang, Yonghui. (2012). Self-esteem and humor style as mediators of the effects of shyness and loneliness among Chinese college students. *Personality and individual differences*, 52, 686-690.
- Ziller, R., & Rorer, B. (1985). Shyness-environment interaction: A view from the shy side through auto-photography. Journal of *Personality*, 53, 626-639.
- Zimbardo, P. G. (1977). *Shyness: what it is, what to do about it*. Reading, MA: Addison-Wesley.
- Zimbardo, P. G. (1982). Shyness and the stresses of the human connection. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 466-481). New York: Free Press.
- Zimbardo, P. G., & Piccione, C. (1985, November). Can shyness affect your health? *Healthline*, 4, 12, 13.

Zimbardo, P. G., & Radl, S. L. (1981). The Shy Child. New York: McGraw-Hill.