



Self-Esteem/ Confidence

The Science of Resilience

✉ rrc@dal.ca

🌐 www.resilienceresearch.org

© R2 RESILIENCE



RRC - Evaluation
and Training Institute

Table of Contents

Definition	1
Types of Self-esteem.....	2
Origins of Self-esteem.....	4
Relationship to Resilience.....	8
Social Media and Selfie Culture	14
Bullying.....	17
Interventions.....	21
Public Speaking / Stage Fright.....	21
Beauty Care.....	22
Music therapy for enhancing self-esteem in academically stressed adolescents	22
Online Intervention.....	23
Exercise	23
Assessment	24
Other Notes.....	32
Reference	33
Appendix A: Rosenberg Self-Esteem Scale	44
Appendix B: Feelings of Inadequacy Scale	45
Appendix C: Contingencies of Self-Worth Scale	47
Appendix D: Collective Self-Esteem Scale.....	49

Definition

Self-esteem is one of the most studied concepts in psychology, with roots in philosophy and growing interest in the realms of neuroscience (Martens et al., 2008). Self-esteem has been described as the degree to which one values or likes oneself, and as an evaluation of one's own value, worth, or importance (Jongeneel et al., 2018). Self-esteem is a multifaceted construct, characterized by trait self-esteem which is the stable maintenance of positive self-worth, and state self-esteem which are momentary feelings of positive self-evaluation (Chavez & Heatherton, 2015). Having positive or high self-esteem plays an important role in a variety of positive life outcomes, and many great thinkers, such as Maslow and Freud, have considered the human need for esteem to be of fundamental importance for human well-being (Crocker & Park, 2004; Hetts et al., 1999). Indeed, Van Linden and Fertman (1998) adapted Maslow's hierarchy of needs to state that safety, survival, and self-esteem are key factors for allowing young people to demonstrate resilience in the form of the ability to bounce back (Dolan, 2012). Baumeister (2003) shows self-esteem has become a popular topic across a variety of research fields, including psychology, sociology, medicine and occupational research, based on the fact that one's self-esteem can improve lifestyle outcomes. Self-esteem can be positively or negatively shaped by external factors, such as name-calling, praise, or compliments, and is a critical aspect of adolescents' psychosocial development and well-being (Barbot et al., 2019).

Self-esteem tends to be used interchangeably with a variety of terms, such as self-concept, self-efficacy, self-evaluation, self-worth, self-respect, self-identity, self-acceptance, and self-confidence (Bong & Skaalvik, 2003; Rosenberg et al., 1995). Self-confidence can be understood as the confidence one has for taking on and completing tasks (which is more in line with self-efficacy), as well as a sense of general confidence in oneself as a personality characteristic (Bandura, 1997; Judge et al., 2002). While each 'self-conception' may have its own unique qualities, especially when studies are focused on investigating them in relation to specific factors, Rosenberg et al. (1995) state that self-esteem is an attitude of oneself either overall (global or general self-esteem), or regarding facets of one's self or interests (specific self-esteem), and that most of the literature tends to be describing global self-esteem, i.e., "the individual's positive or negative attitude toward the self as a totality" (p. 141).

In short, self-esteem is an individual's sense of self-worth (Crocker & Wolfe, 2001; Li et al., 2019; Rosenberg et al., 1995). In comparison, self-concept may be understood as how one perceives one's own identity (e.g., 'I am a student', 'I am Canadian'), and self-efficacy may be understood as a measurement of the amount of confidence someone has in their own ability to influence or exert control over their behaviour, actions, motivation, and social environment, both of which are influenced by past experiences (Bong & Skaalvik, 2003). [See our write-up on self-efficacy for more on its unique relation to resilience]. A recent study by Jaaffar et al. (2019) found that self-esteem has a positive, significant relationship with self-confidence and self-

efficacy; thus, although these concepts have their own unique pathways to resilience, they also highly connected.

Types of Self-esteem

Self-esteem can be typified to a variety of specific factors, including academic, social, spiritual, sexual, personal and relational self-esteem, each of which may require its own unique form of measurement, and may become even more individually focused, e.g., mathematical self-esteem (Li et al., 2019; Rosenberg et al., 1995). Rosenberg et al. (1995) describe these as global and specific self-esteem, with global being more associated with overall well-being, and specific being more evaluative, judgemental, cognitive, and more strongly associated with behaviour and behavioural outcomes. The two mediate the effects of the other, although Rosenberg et al. (1995) state that more specific forms of self esteem, such as academic self-esteem and self-assessment of intelligence, tend to have greater effects on global self-esteem than vice versa.

Some researchers of self-esteem distinguish between explicit and implicit self-esteem for the sake of measurement, the former being declarative and based on reflection, the latter referring to the automatic, intuitive, subconscious and affective associations about the self (Greenwald & Farnham, 2000; Hetts et al., 1999; Pelham et al., 2005; Vandromme et al., 2011). Some also question the validity and effectiveness of using self-report questionnaires to measure self-esteem, as the individuals answering them may have a distorted view of themselves, employ self-presentation strategies, and be reluctant to reveal their insecurities (Vandromme et al., 2011). As such, researchers have used other methods, such as the Implicit Association Test (IAT; Greenwald et al., 1998; Greenwald & Farnham, 2000), to measure automatic responses to self-esteem. For example, Vandromme et al. (2011) found that although the Rosenberg Self-Esteem Scale (Rosenberg et al., 1995) did not effectively predict gaze avoidance and duration, the IAT using naming tasks did, and that higher implicit self-esteem was associated with longer eye contact and lower implicit self-esteem with more frequent breaking of eye contact. Zeigler-Hill & Terry (2007) found that individuals with low explicit self-esteem but high implicit self-esteem were more likely to report higher levels of maladaptive and adaptive perfectionism. High implicit self-esteem and low explicit can help to explain narcissistic tendencies in individuals, with “overtly positive self-views who unconsciously evaluate themselves negatively and engage in defensive behavior when their fragile [self-esteem] is threatened” (Schröder-Abé et al., 2007; see also Grieve et al., 2020). On the other hand, research has shown that the discrepancy of high explicit and low implicit self-esteem has been connected with self-enhancement, defensiveness, and prejudice. Schröder-Abé et al., 2007 state that neither discrepancy is overtly beneficial, as both are often connected to greater self-doubt.

Others distinguish ‘contingent’ self-esteem as being dependent on external sources of valuation (e.g., personal success or failures, or interpersonal recognition), and ‘non-contingent’

self-esteem as being an internal quality of self-acceptance (e.g., ‘despite not succeeding at that thing, I am still a competent and good person’). Compared to the latter, the former is marked by instability and vulnerability, as it requires a never-ending pursuit of self-valuation (Blom, 2011; Crocker et al., 2003; Johnson, 2011; Johnson & Blom, 2007). The contingencies of self-worth scale (Crocker et al., 2003) considers externally validated domains to be appearance, competition, and the approval of others, and the internally validated to be family support, virtue, and religious faith. In other words, the level or ‘score’ of self-esteem is less important—and can actually be counterproductive to try to improve (Crocker & Park, 2004)—than the tasks or areas that an individual pursues, as the validation (even if only perceived) from these are what will affect their behaviour. Goals based on internal values will cause greater motivation and drive to achieve these goals, thus inadvertently increasing or maintaining self-esteem without the need for external validation. Of course, these are not easy to accomplish, as the majority of people are constantly flooded with short-term external tasks both for themselves and for others, as Crocker et al. (2003, p. 905) write, “it is rare for college students to have noncontingent self-esteem.” When people set larger goals and view themselves in relation to the attainment of those goals, they are less preoccupied with tying their own self-worth and value to the completion of the smaller stepping-stone tasks or smaller goals at hand, and thus less focused on tying their worth and value to contingent factors.

It is well supported that groups play an important role on an individual’s identity and sense of self-esteem. As such, Crocker also helped to develop a measure of collective self-esteem, and posits that individuals not only consider and try to enhance their own self-esteem but also the collective self-esteem of the group(s) they are apart of (Luhtanen & Crocker, 1992). Work on collective self-esteem shows that individuals are more likely to judge others inside their group more positively and less critically than those outside of their group, and that race, ethnicity and culture can factor into self-esteem. A study by Cooper et al., (2017) found that research participants with autism (n = 272) had significantly lower levels of personal self-esteem, and higher levels of anxiety and depression than the neurotypical control group (n = 267). However, having a positive social identity as someone with autism acted as a protective mechanism against these mental health issues, as it was positively associated with personal self-esteem and collective self-esteem. Therefore, clinical approaches to improve mental health in people with autism should aim to develop positive autism identities.

Other authors argue the need for a conceptualization of a more “dynamic view of self-esteem” for both a better understanding of it in academic discussions, as well as for individuals with an “impoverished basic sense of self-esteem” who receive standard measurements of low self-esteem which they aim to improve (Johnson, 2011). In writing that high self-esteem is not a unidimensional construct, Kernis (2003) breaks high self-esteem into fragile high self-esteem (‘defensive’, when individuals misrepresenting negative feelings as positive; ‘high explicit’ or ‘low implicit’, when individuals consciously hold positive feelings of self-worth, but non-consciously hold negative feelings; ‘contingent high self-esteem’, when positive feelings of self-worth are based on specific attainments or evaluations by others; and ‘unstable high self-

esteem', where an individual reports feeling generally positive self-worth, but experiences short-term contextual fluctuations), and secure high self-esteem (i.e., 'genuine high self-esteem', evidenced by accurate positive feelings of self-worth, as well as a willingness to admit to negative feelings or characteristics in other domains; and 'high explicit / high implicit', or positive conscious and non-conscious feelings of self-worth; 'true self-esteem', where the individual feels self-worth without the need for ongoing validation; and 'stable high self-esteem', where contextually based feelings of self-worth remain stable overtime and in various contexts). The acquisition of each of the forms of secure high self-esteem is known as achieving 'optimal self-esteem' (Kernis, 2003).

While higher levels of self-esteem are generally positive, Baumeister et al. (2003) warn against self-esteem's similarity to narcissism. People high in narcissism tend to have very high levels of self-esteem, viewing themselves as not needing to change or listen to advice, and are more prone to bully others (Baumeister et al., 2003). Unlike individuals with low self-esteem, narcissists seek admiration to maintain their own already positive self-views, are more likely to brag about their accomplishments, and are driven by a desire to draw attention to themselves, including using social relationships to appear high in status (Kim et al., 2016; Morf & Rhodewalt, 2001). When they feel their self-esteem is under threat, narcissists tend to respond with "feelings of rage, defiance, shame, and humiliation" (Morf & Rhodewalt, 2001, p. 177). Although they use various strategies to influence their interpersonal relationships and self-esteem in the short-term, Morf and Rhodewalt (2011) write that because they tend to not be very concerned with the well-being of others and can often be combative by putting their desires first, in the long run they "ironically undermine the self they are trying to build" (p. 178). Research by Fanti & Henrich (2014) on bullying behaviour indicates that self-esteem and narcissism are two distinct constructs. Using hierarchical linear regression analyses, they suggest that "the combination of low self-esteem (i.e., fragile self-concept) with high narcissism (i.e., grandiose self-view) may contribute to the continuation of both bullying and victimization." In relation to the Big Five personality traits, self-esteem appears to be linked strongest to conscientiousness, extroversion, and emotional stability, with predictors of higher self-esteem being high levels of mastery, risk-taking, and healthy lifestyles (Orth et al., 2014).

Origins of Self-esteem

To better understand self-esteem, researchers have investigated where it came from and how humans evolved to care so much about the opinions of others. These include Greenberg et al.'s terror-management theory (Greenberg, 2008), Leary et al.'s (1995) sociometer theory, and Porges' polyvagal theory (Martens et al., 2008, 2010; Porges, 2007; Porges et al., 1996). According to terror management theory, individuals struggle with the notion that they will eventually die, and they therefore turn to cultural beliefs and various practices to comfort and manage this inevitability. Self-esteem acts as a personal measure of how well one is living in accordance to those beliefs and practices, and high levels of self-esteem act as protective cushions against anxious feelings about death (Greenberg, 2008; Hill &

Buss, 2006). According to this view, people who are exposed to thoughts about their own death may experience fluctuations in their self-esteem due to thinking that their self-worth and value is temporary (vanDellen et al., 2011).

The sociometer theory instead looks at self-esteem as a product of the desire or need for belongingness, rather than as a response to fearful anxieties of death (Leary, 2003). This theory states that individuals evolved out of a survival need for group-acceptance. Self-esteem developed as an automatic interpersonal gauge or signal that alerts an individual to the degree to which they are socially included, and monitors their level of status and acceptance to be able to remain in the social group and avoid social rejection (Leary et al., 1995; Martens et al., 2008). According to this theory, a healthy degree of popularity would cause self-esteem to rise, whereas social rejection would cause it to drop (Baumeister et al., 2003).

While they believe that the sociometer theory of self-esteem is superior to its predecessors, Hill & Buss (2006) argue that it is too narrow to capture the various adaptive problems that self-esteem mechanisms were designed to solve. Rather than simply monitoring the possibility of social inclusion or exclusion, individuals' psychological mechanisms of self-esteem have developed to monitor success in relation to a wide variety of challenges. From an evolutionary standpoint, the authors further posit that some of these issues will be significantly differentiated by sex. For example, men's self-esteem is more likely to be affected by not being able to provide resources and defense, and while body-image plays a significant role in both sexes, women's physical self-esteem tends to be affected more than men's (Hill & Buss, 2006; Water & Moore, 2002).

As Hill & Buss (2006, p. 326) state, "self-esteem is not a unitary construct, but rather a collection of internal representations, monitoring mechanisms, updating mechanisms, motivational mechanisms, and mechanisms designed to generate behaviour output." They further state that one component of self-esteem is the capacity to utilize information from one's surroundings to measure one's own personal performance and social standing. For example, individuals can use environmental cues to monitor their own desirability when looking for a romantic partner. When one perceives oneself to be more attractive to potential mates, they may update their internal representation. Similarly, Kirkpatrick and Ellis (2001) describe self-esteem and self-evaluation as having evolved with such "monitoring mechanisms" to be able to "update" one's self-image in relation to their surroundings.

Hill & Buss (2006) propose that a further component of self-esteem is a cognitive adaptation to evaluate these internal representations. When "affective evaluation" is applied to these updates or change in internal representations, it is referred to as "state self-esteem", and when applied to stable internal representations it can be referred to as "trait self-esteem," as mentioned earlier. Further, this affective component has a "motivational function" to stimulate individuals to enact the most appropriate behavioural output, based on their updated internal representations. Depending on the state of the internal representation, the loss of self-esteem from an event could motivate a large variety of "specific behavioural output" options, ranging

from altruism to enhance the likelihood of social acceptance, to suicide to ensure the ultimate social rejection (Hill & Buss, 2006).

While not necessarily focused on self-esteem itself, the polyvagal theory shares the sociometer theory's notion of self-esteem having derived from a socially-based purpose, but does so through starting with an examination of the evolution of the autonomic nervous system (Porges et al., 1996, Porges, 2007). Through studies on the vagus nerve, Porges describes how it connects to various body parts responsible for automatic visceral interpersonal communication—including the middle ear muscles' ability to differentiate the human voice from background noise, and facial muscles for controlling emotional expression—and visceral bodily responses in the head, heart, lungs and digestive tract. In this way, humans are primed to react to the emotions of others and adjust their own reactions accordingly. Porges argues that these interpersonal characteristics and their visceral reactions are part of the 'social engagement system', a third mechanism of the autonomic nervous system—the others being the defensive components of 'fight-or-flight' or 'freeze-or-feint' responses—which developed in relation to early humans and their mammalian ancestors surviving in calm and safe environments where their socialization skills increased neural activity. Studies have shown that the neural regulation capabilities of the middle ear muscles tend to be defective in individuals with language delays, learning disabilities, and autistic spectrum disorders (Porges, 2007). Separate studies have shown that these populations also tend to have lower levels of self-esteem (Alesi et al., 2012; Jackson et al., 2014; Miyahara & Piek, 2006; Whelan et al., 2007).¹

An interesting aspect of this theory is its 'phylogenetic' claim that the social behaviours and communication made possible through this newer, social neural circuit are incompatible with the neurophysiological states and behaviours of the other two supportive defense strategies, and that they exist in a hierarchy. In other words, most individuals will begin by attempting to communicate; if that breaks down their mobile defence mechanisms of the sympathetic nervous system will kick in to first try to fight or flee, or will revert to its oldest line of defense, the freeze-or-feint response. It is not until one feels safe that their social engagement system will kick back in. This helps to explain how individuals who have lived through traumatic experiences will viscerally react to certain stimuli, as perceiving a similar threat, their nervous system will kick in to cause a "vagal break" and activate more antiquated defense mechanisms. An individual with PTSD hearing or even thinking of something similar to their trauma may trigger an uncontrollable, visceral bodily reaction, including an elevated or irregular heartbeat, sweating, and inability to focus or communicate. This theory also provides an explanation for survivors of sexual assault who may have a 'guilt complex' or anger towards themselves and their body for freezing up instead of fighting off their aggressor, as the most

¹ As Whelan et al. (2007) point out, low self-esteem in individuals with learning, developmental and physical disabilities, has been theorized to be due to a variety of detrimental life factors, including "institutionalization, stigmatization, repeated episodes of failure, unemployment, and fewer opportunities for friendships and intimate relationships", and may lack interpersonal and coping skills to deal with problems, contributing to negative beliefs of themselves.

ancient of the three neural circuits took over for survival. Not surprisingly, women with histories of physical and sexual abuse are at heightened risk of anxiety, depression, PTSD, and many suffer from low self-esteem (Arata et al., 2015; Beck et al., 2016; Kubany & Watson, 2002).

Individuals with psychiatric and behavioural disorders characterized by difficulties in establishing and maintaining interpersonal relations, such as people with depression, autism, anti-social behaviours, attachment disorders, and a variety of disabilities, tend to have difficulties in expressing and interpreting social cues (Martens et al., 2010; Porges, 2007), and also exhibit low self-esteem. Recent research has investigated the connection of this vagus nerve to self-regulation and self-esteem. In line with Porges' work, Martens et al., (2008, 2010) provide evidence for a physiological connection to self-esteem by way of the cardiac vagal tone, the level of influence the parasympathetic nervous system has on the heart. When changes in self-esteem occurred, activity occurred in nerve-endings connected to a branch of the vagus nerve, the 'nucleus ambiguus', which is responsible for regulating breathing, swallowing, vocalizations, and heart rate.

In line with Greenberg's theory of terror management, Martens et al. (2010) state that self-esteem provides people with feelings of security when faced with threats, and that greater self-esteem acts as a resource for compensating for threats to the self. In other words, high self-esteem predicts less likelihood of defensive threat-related responses. To reinforce this claim, Martens et al. (2010) cite past research showing how low state self-esteem is associated with anxiety, depression and hostility, and that high trait self-esteem predicts lower levels of anxiety, depression, aggression, rejection-related defensiveness, stress in response to strenuous circumstances, and physiological fight or flight responses (Martens et al., 2010).

Other research looking at the association between self-esteem and brain activity found that individuals with a stronger white matter connection between the medial prefrontal cortex and ventral striatum (involved in reward sensation) showed high long-term self-esteem (Chavez & Heatherton, 2015). The medial prefrontal cortex has been shown to play a fundamental role in decision making in adults, in the ability to learn and predict the likely outcomes of actions, in social cognitive abilities such as self-reflection, person perception, and theory of mind/mentalizing, and serves as a key region for understanding the self and others (Grossman, 2013). As such, it may be a key component of the development of self-relevant information, as well as of the sense of self that infants begin to experience through social interactions (Grossman, 2013).

Worth pointing out, research by Chavez & Heatherton (2015) states that brain structure and activity does not account for self-esteem levels alone, that other factors like age, personality, and life circumstances play a role in how people view themselves; additionally, past research has shown that repeated habitual tasks may also partially alter the brain's structure. However, the researchers found evidence for different aspects of self-esteem being associated to areas of the brain in terms of state (momentary) and trait (stable) self-esteem (Chavez &

Heatherton, 2015, p. 367). This distinction is important for evaluating future interventions that target changes in self-esteem or self-concept. The criticism of past interventions aiming to boost self-esteem (c.f., Baumeister et al., 2003) may be due to them conflating efficacy over both the short- and long-term. While Leary's popular "sociometer" theory of self-esteem states that it evolved as a means of monitoring other's actions and of self-evaluation to prevent the possibility of social rejection (Baumeister et al., 2003; Leary et al., 1995; Leary, 2003), the authors state that though their research lacked any social manipulation, self-esteem may be less anchored in social evaluation than an endogenous self-evaluation (Chavez & Heatherton, 2015). According to Chavez and Heatherton (2015):

Stable aspects of self-esteem maintenance are reflected in frontostriatal structural white matter anatomy, whereas momentary feelings of self-esteem are reflected in transient frontostriatal functional coupling of these regions... To the extent that an individual regularly experiences feelings of high state self-esteem, it is possible that the repeated recruitment of these frontostriatal circuits may increase the structural integrity of white matter tracts within this system over time. This, in turn, may then lead to an increase in trait self-esteem, reflecting the results from our DTI [diffusion tensor imaging] analysis. (p. 367)

Polyvagal theory is included here in the discussion of other theories of self-esteem for the purpose of stating how self-esteem is both likely dependent upon the actions and characteristics others, as well as being an internal aspect of an individual's makeup. Like resilience, self-esteem is not only an internal quality or characteristic valuation of one's own worth, but an innately mechanism with influence on and from social stimuli.

Relationship to Resilience

A study by Jaaffar et al. (2019) showed that students with higher self-esteem had higher academic performances at university compared to those with lower self-esteem and concluded that higher education institutions and employers should emphasize the importance of developing undergraduates' self-esteem to improve their employability qualities. High self-esteem does also play a role in goal-setting and goal-achievement, as it provides individuals with confidence to be able to persist despite obstacles and setbacks (Bandura, 1997; Leary et al., 1995).

Marmot (2003) discusses how self-esteem is closely linked to autonomy and the earning of respect, and that low levels of autonomy and self-esteem tend to be related to poorer health. The author also posits that having increasing self-esteem by fostering a greater sense of pride in one's self and one's culture can have a more favourable impact on health behaviours than just focusing on changing diet and exercise alone. This is understood as 'global self-esteem', which refers to how one sees and values the self and is regarded as a quality that indicates one's own level of self-evaluation (Danielsson & Bengtsson, 2016).

Numerous studies have shown a link between high self-esteem and self-enhancement and health, and low self-esteem and depression (e.g., Baumeister et al., 2003; Chang et al., 2018; Han & Lee, 2020; Muris, 2001; Orth & Robins, 2013; Schröder-Abé et al., 2007). Other longitudinal, cross-lagged studies have come out showing that higher levels of self-esteem have been shown to predict increased success and well-being in various aspects of life, including physical and mental health, employment status, job success and satisfaction, social network size, social support, and satisfaction in marriage and close relationships (Orth & Robins, 2014). Conversely, low self-esteem during adolescence has been shown to predict poor health, limited employment opportunities, and criminal behaviour in adulthood (Trzesniewski et al., 2006).

In a study of dental aesthetics and psychosocial well-being, Lukez et al. (2014) found a correlation between higher global self-esteem and slightly straighter teeth, age, and male gender, but the authors admitted that likely self-esteem is determined by other factors such as general physical appearance, academic success and popularity, financial status, health, and mass media. Another study by Kovacevic Pavicic et al. (2020) also found no moderation or mediation effect for general self-esteem, teeth-whitening, and life satisfaction. Still, dentist offices around the world continue to push the narrative that aligning and whitening your teeth for aesthetic purposes will increase your self-esteem.

However, rotten or missing teeth can cause others to react poorly when one smiles, which can cause someone to become self-conscious and have lower self-esteem. A study by Gallego et al. (2018) that provided prostheses to low-income individuals in Santiago, Chile (n = 350, 70% female, aged 18-60, mean age of 48; control group n = 449), found that the offered dental services had a significant positive impact on women's self-esteem (measured with the 10-item Rosenberg Self-Esteem Survey) in the initial follow-ups and three years after the study. The study also found a slight increase in employment rates and earnings, which increased when controlling for women at baseline with missing front-teeth and initial low self-esteem. Relationship quality with their romantic partners also increased significantly for women in the target group, with an increase in going on dates, exchanging gifts, and a reduction in verbal violence. These women also increased spending on themselves in terms of clothing, hair styles and beauty products. The authors admit these may have had to do with economic standing, but also point out that these women were more likely to show their teeth and smile for pictures post-treatment, and had better ratings in social competence and psychological dimensions. This last point of improvement may have contributed to their workplace performance, and bargaining ability both at work and in the household, which is important as many of the women were self-employed or worked in informal workplace settings. The authors state that their findings that show that self esteem has an effect on labor market outcomes for women but not for men in an emerging economy is consistent with the evidence provided in a past 2017 study of the United States.

Job stress has been found to have a negative impact on job satisfaction, employee self-esteem, and job turnover rates, and can be amplified by having to manage emotional labour. In

a study of 244 female call center counselors in Seoul, the researchers found that self-esteem partially mediated job stress and job satisfaction, and that therefore counselors should be provided a form of specific self-esteem training to enhance behavioural outcomes, and global self-esteem training to enhance psychological well-being (Yang et al., 2016). The authors unfortunately did not offer specific suggestions for such training.

Self-esteem can change when one learns how others think about them, but it can also be highly affected by what one *thinks* others think of them. This also does not apply only to perceptions of other humans, as researchers like Crocker and Wolfe (2001) point out by including “God’s love” in their measure of self-esteem, i.e., how deserving one feels for God’s love based on how good or virtuous of a person they are (Crocker et al., 2003). Crocker et al. argue that this is an important consideration in the measurement of self-esteem as 90% of Americans believe in God or a supreme power, and two-thirds state that religion plays an important role in their lives. Regardless of one’s stance on the existence of God or a supernatural power, the point is that one’s conception of whether others like them or not matters in affecting their overall self-esteem. Recently, researchers in the UK conducted an experiment where 40 mentally and physically healthy participants uploaded a personal profile to a database and conducted a social evaluation task while in an MRI scanner (Will et al., 2017). The participants were told that their profiles were being rated (thumbs-up or thumbs-down by 184 ‘strangers’ (which was actually an algorithm), while researchers measured the neural responses to being judged. The ‘strangers’ were grouped and displayed with a colour-code that indicated their overall approval rating toward all participants, so that participants learned to expect positive feedback from certain strangers and negative feedback from others. After every 2-3 trials, participants reported on their self-esteem at that moment, for a total of 78 self-esteem ratings. Participants expected to be liked or more often receive a thumbs-up by ‘strangers’ in the groups that mostly gave positive feedback, so when they received a thumbs-down their self-esteem dropped.

The researchers found that these ‘social prediction errors’, and the changes in self-esteem from these errors, were tied to neural activity in the ventromedial prefrontal cortex (vmPFC), ventral striatum, and subgenual anterior cingulate cortex (sgACC), which are related to reward systems, social learning, decision making, emotional regulation, and valuation of others’ advice and trustworthiness. After combining the computational model with clinical questionnaires (including state and trait self-esteem questionnaires; Rosenberg, 1965; Heatherton & Polivy, 1991), the researchers also found that individuals with greater state self-esteem fluctuation during the task also had lower general trait self-esteem, reported more symptoms of depression and anxiety, and showed increased prediction error responses on the MRI scan in the area of the brain called the insula. The combination of this mathematical calculation of self-esteem and brain scans help to show how “updates of self-worth” are processed, and may have identified an area of mental health vulnerability, as low self-esteem can lead to a variety of psychiatric problems, including anxiety, eating disorders, and depression (Vohs et al., 2001; Will et al., 2017, 2020). Just as people continuously evaluate the worth of a

variety of objects (e.g., ‘this food used to be good and worth eating, but now has gone bad’ or ‘this item is useful and worth keeping’), the researchers posit that those same neural mechanisms affect self-esteem by shaping the self as the object, and continuously calculates an updated value by integrating personal with social preferences of said object based on the opinions of others (Will et al., 2017).

While state self-esteem is affected by both the actual opinions of others and perceived opinions of others, a more recent study by Will et al. (2020) showed that individuals with already low-self-esteem were more likely to persistently believe that the ‘strangers’ would dislike them and not want to be their friends in real life, and had a reduced tendency to update those negative expectations in relation to social prediction errors. The low self-esteem participants (n = 30; mean age = 21; 18 females) were also more likely than high self-esteem participants (n = 31; mean age = 21; 16 females) at baseline to score higher on interpersonal sensitivity (e.g., rejection sensitivity, fear of negative evaluation), anxiety and depression, for which global self-esteem made the greatest contribution to canonical dimensions of interpersonal vulnerabilities (Will et al., 2020). While the fMRI scans showed that both sets of participants expressed similar neural response activity to social prediction errors, the low self-esteem participants had a lower estimate of their social value, and were slower to update their estimate of self-worth in response to these social prediction errors. In other words, individuals with low self-esteem are less likely to learn how much others actually like them based on social feedback but are more likely to use social feedback to determine their subjective reports of self-worth (Will et al., 2020). Somewhat paradoxically, individuals with low self-esteem have a dissociation between expectations about being disliked and feelings of self-worth.

A prominent theory in the literature is that people with low self-esteem have been affected by past negative appraisals by others to the point that they persistently believe that others will not approve of them (Leary et al., 1995). Such negative reinforcement may alter reinforcement-learning mechanisms in the brain that contribute to this belief, as Will et al.’s (2017, 2020) studies show that impairments in those mechanisms can explain how such negative self-appraisals are maintained and contribute to how individuals with low self-esteem feel both an expectation of social rejection, and undeserving of social acceptance when they obtain social approval. This adds to past work showing that people with low self-esteem feel undeserving of positive moods and outcomes, and that these feelings can impair their motivation to fix negative moods (Wood et al., 2009). This also ties into past research on self-esteem and motivation or persistence [see our write-up on motivation and perseverance], which showed that individuals with high self-esteem were more action-oriented, had higher levels of measured persistence, and were less likely to ruminate compared to individuals with low self-esteem (Di Paula & Campbell, 2002). Worth noting, some researchers argue that the pursuit of self-esteem can be difficult for individuals, especially when their self-esteem is tied to other pursuits (e.g., employment or academics), and may lead to a drop in self-esteem if these individuals tend to have a setback and then consider themselves failures at both pursuits (e.g.,

having a higher GPA and higher self-esteem), and is therefore a risk factor for the development of depression (Crocker & Park, 2004).

Will et al. (2020) also suggest that beliefs about being disliked may be more prominent in situations with greater levels of uncertainty or ambiguity. Relatedly, low self-esteem is also prevalent among shy individuals (Zhao et al., 2013). Individuals who stutter especially tend to display indicators of shyness, have lower self-esteem, and a higher fear of failure, which may keep them from striving for high levels of achievement (Sharma et al., 2010). One research study into shyness has shown that it can be mediated through social support and self-esteem (Zhao et al., 2013). Shy people tend to use ‘maladaptive humour’ (i.e., aggressive or self-defeating humour that puts down others or oneself for the enjoyment of others) rather than ‘adaptive humour’ (such as ‘affiliative humour’ that is used to strengthen interpersonal relationships, or ‘self-enhancing’ which puts a positive spin on things as a coping mechanism), which can contribute to shy people experiencing more loneliness (Zhao et al., 2013) [see our write-up on Humour]. Individuals with greater social support tend to have significantly higher levels of self-esteem than their peers, while shy people tend to have lower self-esteem and confidence in their own social behaviors, and tend to avoid social situations to prevent possible negative outcomes, thereby leading to increased loneliness (Zhao et al., 2013).

This avoidance behaviour is similar to the “catastrophizing” self-statements described in Liston et al.’s (2003) study on the predictors of musical performance anxiety. Such artists were more likely to use ‘catastrophizing’ self-statements about their beliefs in their upcoming performance, have trait anxiety, low self-esteem, low self-efficacy, be female, doubt their own abilities, have perfectionist qualities of being overly concerned about making mistakes, and concerns about parental perceptions. However, although arguably some of these qualities are tied in with self-esteem, the study also found that low self-efficacy and the tendency to catastrophize were the only two significant predictors of musical performance anxiety. In other words, before they go on stage people with performance anxiety are already convincing themselves they are going to miss a note or somehow fail. Research into the relationship between self-esteem and stage fright or performance anxiety with public speaking has shown that measures of global self-esteem can actually predict quicker cardiovascular adaptation during these stressful events (Elfering & Grebner, 2012), and mindfulness-based interventions which focus on enhancing self-esteem can assist in reducing public speaking anxiety (Kumar et al., 2017).

A similar study on 508 Korean college students (54% male; mean age of 20.56 years) found an association between self-esteem, maladaptive coping practices, perfectionism and psychological distress. This study found that males, in particular, with high levels of ‘evaluative concerns perfectionism’ were more likely to use maladaptive coping strategies, including suppressive strategies such as denying problems exist, and reactive strategies such as having emotional reactions. These maladaptive coping strategies tend to lead to low self-esteem, general distress and interpersonal difficulties (Park et al., 2010).

Research by Joiner et al. (1999) showed that individuals with negative life experiences tend to have increased anxiety and lower self-esteem, which can lead to increased reassurance-seeking behaviours. The excessive form of this behaviour is a maladaptive interpersonal coping strategy that focuses on “negotiating doubts about one’s lovability and worthiness (i.e., self-esteem) and doubts about future prospects and safety (i.e., anxiety)” (Joiner et al., 1999, p. 633). Such people tend to seek constant reassurance to alleviate their anxiety and feelings of low self-esteem, which can be detrimental to their interpersonal relationships and other positive pursuits, which in turn can further lower their self-esteem (Crocker & Park, 2004). Individuals with low self-esteem and low confidence tend to report significantly greater negative affect (Lorr & Wunderlich, 1988).

Some researchers have designed measures of self-esteem geared towards these maladaptive strategies. Competence-based self-esteem (CBSE) is an active maladaptive style compensated through the achievement of successful acts, while relationship-based self-esteem (RBSE) is a passive maladaptive style compensated by emotional reassurance (Blom, 2011; Johnson & Blom, 2007). Johnson & Bloom (2011) describes these as habitual responses to perceived social threats and challenges. The authors show that CBSE is a stronger predictor of poor physical health than RBSE in a study of 284 Swedish adults. These tools were designed in relation to ongoing developmental research that examines how exposure to perceived social threats can activate visceral and habitual biological, psychological and behavioural responses that can cause disengagement or withdrawal behaviours (Johnson & Blom, 2011).

With its intricate interdependent connection between individuals, their culture, and social networks, self-esteem could be summed up similarly to how Ungar (2011) describes resilience in terms of an interplay of these factors. Psychological studies have shown a variety of benefits associated with having high self-esteem, including that a positive view of oneself is an important contributor to mental health and well-being (Orth and Robins, 2013; Trzesniewski et al., 2006). Individuals with high self-esteem are less prone to affective disorders such as depression, anxiety and eating disorders, and show a greater amount of positive affect and increased initiative in the face of challenges (Baumeister et al., 2003; Chavez & Heatherton, 2015). High self-esteem has also been associated with general happiness, an improved responsiveness to treatment for depressive conditions, and increased mental health resilience (Chavez & Heatherton, 2015). Having high self-esteem has also been found to reduce stress, with recent research showing that this can prevent areas in the brain from harm, including in the hippocampus, which can in turn benefit the immune system (Lu et al., 2018). Therefore, the simple feeling of positive self-esteem may contribute to an improved overall sense of well-being physically, psychologically, and socially (Kok et al., 2013). Enhancing or maintaining self-esteem is important for any age, as self-esteem tends to increase in adolescence, continuing into adulthood and peaking around the age of 51, before decreasing into old age (Orth et al., 2014). Interventions aimed at self-esteem may be better targeted at adolescence, while self-esteem is naturally increasing; as well, adolescence tends to be a time where self-esteem, coping mechanisms, and resilience are developed (Rosnau et al., 2017).

Social Media and Selfie Culture

Several studies have shown a variety of (mostly negative) associations between social media use and self-esteem. A recent study of Polish adults ($n = 653$; 73% female; mean age 21.63 years) showed that low self-esteem and high levels of narcissism could predict Facebook use to a degree, but that people with low self-esteem place less importance on Facebook use (Blachnio et al., 2016). People with low self-esteem tend to prefer posting self-disclosures on Facebook rather than disclosing to people in person for the feeling of safety, but their status updates tend to express more negative affectivity, which consequentially leads to receiving fewer likes and comments (Forest & Wood, 2012). Such a lack of social media feedback can cause a feedback loop of even lower self-esteem, along with lower feelings of belonging, control, and meaningful existence (Tobin et al., 2014). Marshall et al. (2015) write that low self-esteem has also been found to be associated with anxious attachment issues, and that such individuals are more likely to post on Facebook about their romantic relationship as a form of impression management to refute negative impressions and lay claim over their relationship when they feel insecure. Unfortunately, this may be another low self-esteem feedback loop, as people who post often about their relationships tend to be viewed as less likeable (Emery et al., 2014). This may further harm their own relationship, as Murray et al. (2015, p. 179) write that, “low self-esteem people often seem to be the architects of their romantic misfortune.” Forest & Wood (2012) also state that people with low self-esteem tend to receive better responses from Facebook friends when they make positive updates, and that those people would therefore benefit from making less negative posts to create and enhance positive social connections.

Similar research has been done on the association between narcissism, self-esteem and ‘selfie-culture.’ Weiser (2015, p. 480) writes that exploitative and entitled narcissistic elements of selfie-posting “are marked by contingent self-esteem, devaluation of others who do not provide needed adulation, and anger when entitled expectations are not met.” While women are more likely to post selfies of various forms, narcissism was found to predict selfie-posting more strongly among men than women, which may reflect strategic self-presentation (Sorokowski et al., 2015). As people with low self-esteem are less likely to self-present compared to people high in narcissism, selfie-posting behaviour may prove more harmful for people with low self-esteem due to the potential for negative feedback, which would have a greater negative impact on their confidence and self-esteem (Baiocco et al., 2017). Because selfies perpetuate the need for admiration and make them dependent on external feedback, they may more likely reinforce negative contingent self-esteem.

As stated earlier, individuals are primed to desire or require social acceptance and connection, and avoid social rejection and exclusion (Baumeister et al., 2003; Gonsalkorale & Williams, 2007; Greenberg, 2008; Leary et al., 1995). When one feels accepted their self-esteem is enhanced, and, with social interaction and recognition, a sense of control and meaning is achieved and maintained (Gonsalkorale & Williams, 2007). This may also be the case for online

video games being a source of contingent self-esteem, with studies of online gaming showing that male players tend to have a significantly greater need for friendship than female players, males derive more feelings of achievement from gaming, spend significantly more time playing online, and are more likely to experience video game addiction (Huang et al., 2015; Sublette & Mullan, 2012).

Huang et al., (2015) also describe past research showing how online gaming had been associated with lower quality self-esteem, family relationships, and life adaptation skills in students compared to those without gaming experience, and that although some computer games can increase self-esteem, individuals who misrepresent themselves online can develop a negative self-concept in terms of social comparisons and cyberbullying. In a study of 34 Quebec high schools (n = 8, 194; 56.3% female; mean age 15.4), Cénat et al. (2014) found significant overlap between cyberbullying, low self-esteem, and psychological distress. The authors found that 18.1% of boys and 26.4% of girls had experienced cyberbullying over the course of the past year and that girls experienced significantly higher prevalence of cyberbullying, psychological distress and low self-esteem².

Sublette & Mullan (2012) also discuss how online gaming can be a healthy recreational activity when used responsibly, may provide socialization to those lacking it face-to-face and may thereby reduce anxiety or depression. However, they also caution that increased gameplay may also negatively affect the quality of interpersonal relationships. They also posit that more research is needed to investigate the role that the physical presence of others plays, i.e., “whether the psychosocial and health benefits obtained from belonging to a social group... apply to those relationships and friendships that are made and maintained online, or if beneficial effects are found exclusively in face-to-face interactions” (Sublette & Mullan, 2012, p. 21). Without physical social cues, individuals with low self-esteem may be left guessing and ruminating about what others think about them (Di Paula & Campbell, 2002). Baker & White (2010) also call for more research into self-esteem in relation to face-to-face interaction and social media use among adolescents, as some studies have shown that, compared to youth with high self-esteem, adolescents with lower self-esteem are more likely to seek out computer-mediated social interactions with others, while others have shown that youth with high self-esteem are more likely to use social networks to maintain their already-established face-to-face interpersonal relationships.

A 2017 study by Primack et al. found that American young adults who used social media more frequently than their peers (i.e., for more than two hours a day compared to those who used social media for less than 30 minutes a day) reported double the levels of perceived social isolation (i.e., the feeling that they were alone or left out). Those in the highest quartile of social media use (who visited social media platforms 58 or more times a week) were more than

² Self-esteem was measured using the short 4-item version of Self-Description Questionnaire (Marsh and O’Neill, 1984)... “A dichotomized score was computed based on a cut-off point of 10 or less to represent low self-esteem” (p. 8)

three times as likely to experience perceived social isolation compared to those in the lowest quartile (whom visited social media platforms less than nine times a week). While it is unclear if social media use causes perceived social isolation, or if instead individuals who experience perceived social isolation tend to use social media more than others, this research adds to others that has shown negative affects of excessive social media or internet use. One such study showed that internet addiction has been linked to low general self-esteem, social self-esteem, family-home self-esteem, and total self-esteem (Aydm & San, 2011). Perceived social isolation has also been linked to a number of negative life outcomes, including early death (Cole et al., 2015). Worth mentioning, however, Orth et al. (2014) report that generational changes, such as increased self-presentation on social media, have not influenced the historical self-esteem trajectory, and that measured levels have been consistent during the past century.

When humans perceive themselves to be lonely, it can have a negative affect on their bodies, including increased cortisol (the stress hormone), inflammation, high blood pressure, and diminished memory and executive functioning (Cole et al., 2015). A study on older adults reported that reduced face-to-face contact can increase the risk of depression (Teo et al., 2015), which is additionally important as self-esteem tends to decline after the age of 51 (Orth et al., 2014). While there are benefits to online communication and community-building, the above is mentioned to highlight the importance of balancing the use of technology with face-to-face connection for positive self-esteem as well as other aspects of positive affect, as it seems that our physiology has evolved for social engagement. With the current Covid-19 pandemic social isolation measures, these research findings and theoretical considerations are important for considering the effect these measures may have on self-esteem. It is no wonder there has been an increase in virtual face-to-face video conferencing calls, online streaming, and internet use in general (Beech, 2020).

Online activity is mentioned for three reasons: the first is that although feelings of social connection and acceptance (and thus potentially self-esteem, if only contingent) exist from playing online with others, self-esteem appears to be intricately connected to the human physiology, as discussed in regard to the polyvagal theory (Martens et al., 2008, 2010). Second, online platforms may be a haven for people to connect with others without showing their face (as mentioned with Facebook posts), with an appeal of misrepresentation, yet face-to-face interaction and self-acceptance may be important for increasing self-esteem. Finally and related to the last point, individuals with low self-esteem may have a number of negative affective comorbidities—including depression, anxiety, or bipolar disorder—and criticism from individuals online (whether personal or by ‘trolls’ looking to get a rise for kicks) may feel more targeted, be taken more to heart, and have negative consequences, including the heightened risk of suicide, a risk which is increased when the individual with low self-esteem is also bullied in real life (Lakey et al., 2014; Peng et al., 2019; Thompson, 2010; Yen et al., 2014).

Bullying

Bullying can have long-term effects on self-esteem. Carlisle and Rofes (2007) report on several studies looking into the long-term impact of bullying, including a quantitative study that followed former victims of school-related bullying into adulthood. Compared to a control group, these Norwegian former victims (n = 15, all male) reported no differences in several factors, including loneliness, social anxiety, and emotional regulation, but they did show significantly higher levels of depression and lower self-esteem. Another study of 884 adults from Spain, Germany, and the United Kingdom found that former victims of school bullying scored lower than a control group on self-esteem, higher on emotional loneliness, and reported more difficulties maintaining friendships. Another study using self-report measures from Japanese university students found that high levels of adult depression occurred only in students who had recounted experiencing low self-esteem and high depression prior to their victimization (Carlisle & Rofes, 2007). It may be the case that low self-esteem and depression may not only be a result of being bullied, but also a factor.

In their study (n = 15, white males from the UK and USA, ages 27–57), Carlisle and Rofes (2007) state that several participants used the following terms to describe how their self-esteem was affected by being bullied: “destroyed, obliterated, [and] inferiority complex”. Low self-esteem was ranked 7/26 on a list of symptoms experienced from bullying ordered by severity, and was preceded by feelings of loneliness, shame, thoughts of revenge, anxiety, being easily stressed, and irritability. A few others immediately following low-self esteem were low energy, depression, difficulty relating to groups, and feeling powerless in conflict situations. Regarding the symptoms that the individuals felt most intensely, eight participants listed ‘shame’ as the most common, and five listed ‘low self-esteem’.

The American Medical Association stated that bullying may cause as much damage to a child as abuse, as the psychological trauma of repeated harassment may lead to depression or low self-esteem as an adult (Scarpaci, 2006). A common target of bullies is physical appearance and weight, both of which play a role in the development of physical self-esteem, especially of young women (Herring et al., 2014; Yen et al., 2014). Studies from Canada and the United States have shown that overweight youth were more likely to perform bullying behaviour than their normal-weight peers (Yen et al, 2014). While past hypotheses were that this was due to overweight bullies exploiting their larger physical weight, Yen et al.’s (2014) study of Taiwanese youth showed that increased BMI was significantly associated with perpetrating ‘passive’ verbal bullying but not ‘active’ physical bullying. Similarly, Fitzpatrick and Bussey (2010) state that low self-esteem can contribute to perpetrating ‘social bullying’ behaviour, where an individual intends to damage another person’s self-esteem and social status through spreading rumours, threats to end friendships, social exclusion, and nonverbal aggression such as mean looks.

Studies have also shown that low self-esteem is more often a characteristic in bullies who have also been bullied themselves compared to ‘pure bullies’, which was especially true

for girls, as boys who had been victimized by bullies showed increased self-esteem if they became bullies themselves (Pollastri et al., 2010). Scarpaci (2006) states that not all bullies have low self-esteem, that they can often be self-confident and popular, and research by Simon et al. (2017) found that bullying behaviour tends to be driven not by low or high self-esteem, but by bullies having more defensive personalities. Linking back to internet use and cyberbullying, Brewer and Kerslake (2015) found that low self-esteem was a significant predictor of cyberbullying victimization, and that low self-esteem and low empathy were significant predictors of cyberbullying perpetration in a study of British youth (n=90, 51 female, ages 16-18).

After controlling for sex, adolescent depression, and socioeconomic status, one study found that individuals with low self-esteem during adolescence are at greater risk for negative life outcomes in adulthood, including greater likelihood of committing criminal activity, having poor mental and physical health, and worse economic prospects (Trzesniewski et al., 2006). These findings speak to the importance of having positive social engagements, the promotion of non-contingent self-esteem, and increased monitoring by social supports (e.g., peers, parents, teachers) to offer social and psychological resources to children and adolescents with suspected low self-esteem, as they may appear quiet, withdrawn and unwilling or able to ask for help when needed (Karayagiz Muslu et al., 2017; Trzesniewski et al., 2006). Regarding school bullying, this is especially important for teachers, as Simon et al.'s (2017) research showed that they were consistent in being able to identify children and victims who were low in self-esteem, and bullies who were high in defensive egotism.

Because personal life experiences are a key source of how self-esteem develops, parents or guardians responsible for child-rearing during the early years of development play a major role in contributing to a child's positive or negative self-esteem, as do their friendships and relations to peers (Baumeister et al., 2003). One study found that adolescents' perceptions of how they were parented had an affect on their self-esteem, happiness, and general life satisfaction (Raboteg-Saric & Sakic, 2014). Youth who perceived their parents to be authoritative (i.e., demanding but responsive) and permissive (i.e., responsive but not demanding) scored higher on the measures of these qualities compared to those who considered themselves to be raised under authoritarian parenting styles (i.e., demanding but unresponsive). Higher subjective happiness scores, self-esteem and life-satisfaction were also found among those adolescents who reported higher quality of their friendships (Raboteg-Saric & Sakic, 2014). These findings were also found among high school students, which fits with Crocker's (2003) assertion that school settings offer a variety of ways to develop self-esteem and self-worth, whether in relation to friends and peers or academic pursuits.

In a study of the self-esteem levels among individuals with neurofibromatosis type 1 (NF1; a genetic condition characterized in part by pigmentation spots on the skin and small bumps forming under the skin during adolescents), the researchers found that individuals with the condition had lower levels of global self-esteem compared to the general population

(Rosnau et al., 2017). However, the researchers also found that self-esteem levels were higher among individuals who reported having had received genetic counseling, attended an NF1 support group, had received care at an NF clinic, and had friends who also had NF1 (n = 46, females = 29, aged 13-73, mean age 39.2). The study also found a connection between a history of learning problems (which tends to be associated with the disease) and lower self-esteem but did not find any evidence for the visible aesthetic side of NF1 being a factor for lower self-esteem. Instead, in line with past research findings on NF1, the authors posit that learning and attention problems likely lead to adverse school experiences, which results in lower self-esteem and damaged self-image (Rosnau et al., 2017). As such, teachers and others in the social network of an individual with NF1 ought to be aware of this aspect, as well as the benefits of having friends with the condition and being around those who understand it. Genetic counseling can also be important for providing coping mechanisms during the period of adolescents (which may contribute to higher self-esteem scores), and for offering guidance to family members in navigating various interventions and special education programs.

In a study of 881 community-dwelling women in the US—475 of whom had various mild to severe physical disabilities, and 406 who did not—Nosek et al. (2003) found through a correlation analysis that the group of women with physical disabilities had significantly lower self-cognition and self-esteem levels, greater social isolation, significantly less education, more overprotection during childhood, and poorer quality of intimate relationships, and lower rates of salaried employment. A path analysis revealed that self-esteem and social isolation were significantly related to health promoting behaviors (e.g., proper sleep, diet, exercise, and lack of drug use), that only self-esteem was significantly related to employment, and that education was not related to self-esteem. Greater self-esteem was also found to be associated with individuals who were older, who had less significant disabilities, a positive school environment, less over-protection, and more affection in the home. Other research on self-esteem among people with intellectual disabilities showed that social comparison (in the form of achievement, social attractiveness, and group belonging) was associated with self-esteem and depression. Positive self-esteem, and the social comparison dimensions of social attractiveness and group belonging, were found to be negatively related to depression (Dagnan & Sandhu, 1999).

These findings speak to the important role that socialization plays on self-esteem, and the role self-esteem plays in engaging in social relationships with others. When one has positive self-esteem, and feels safe to connect with others, there is a biological response occurring that encourages them to navigate social relationships by acting and reacting to the signals of others. Therefore, it is important for counselors, therapists, and teachers with the ability to observe social actions to pay attention to individuals who have trouble interacting with others, and work with caretakers to provide interventions to improve self-esteem.

Ungar (2010) argues that “Rutter's (1987) four protective mechanisms (reducing risk impact, preventing negative chain reactions, enhancing self-esteem and self-efficacy, and opening opportunities)” (p. 431) are overly-general, and that specific behavioural outcomes and

processes must be negotiated with surrounding social units. Rather than offering self-esteem training or anger-management classes, an adolescent may instead enhance both their self-esteem and emotional regulation indirectly through changes in school setting, family patterns, and a deeper understanding of lived experiences (Ungar, 2010). This is also true for goal setting and attainment, as echoed by Crocker & Park (2004) who state, “It is seldom obvious whether people are engaged in the pursuit of self-esteem, because any behavior could have different underlying motivations” (p. 394). While Ungar lists self-esteem as an individual attribute of a resilient character, it is also categorized as an interpersonal attribute, i.e., the “capacity to restore self-esteem when threatened by others” (Ungar, 2010, p. 326). The above is worth mentioning to reinforce the notion that self-esteem is not only a personal quality based on a self-conception of self-worth, but that it is deeply intertwined and interdependently associated with the individuals and social structures one is connected to. Knowing that one’s self-esteem can be subconsciously affected by others is an important first step in maintaining or increasing it, as one can determine who best to surround oneself with. As Wild et al. (2004) write, “interventions that aim to protect adolescents from engaging in risk behaviours by increasing their self-esteem are likely to be most effective and cost-efficient if they are aimed at the family and school domains”.

In a review of youth empowerment programs (YEPs) aimed to promote self-efficacy and self-esteem, Morton and Montgomery (2012) found that although there is a wide amount of literature promoting the ability of YEPs to develop youths’ positive attitudes and behaviours, the empirical evidence needed to show a measured improvement in self-esteem was lacking both in study design (i.e., lack of measurement) and outcomes (i.e., no statistically significant baseline changes in self-esteem outcomes between intervention and control groups). However, setting may be an important consideration, which is especially true for individuals who have experienced trauma. Ungar et al. (2005) writes that a variety of outdoor programming is continuously being conducted to enhance the self-esteem of at-risk youth, and Norton et al. (2014) write how therapeutic alternatives to closed residential schools for at-risk youth, such as outdoor behavioural care (OBC) programs, may be beneficial in improving a variety of outcomes, including self-esteem and the ability to build strong bonds with peers and adults. As Ungar (2013) claims:

The more the environments make available and accessible the resources that promote well-being, the more likely the individuals are to engage in processes associated with positive development such as forming secure attachments, experiencing self-esteem, engaging in expressions of personal agency, and meaningful employment... Recovery from trauma is not an individual capacity alone but a function of the individual’s social ecology to facilitate recovery and growth. (p. 258).

An important note to add is that individuals with mental health issues associated with negative affect (e.g., anxiety and depression) do tend to see changes into more positive affective states overtime (Charles et al., 2001; Thomas et al., 2016), so if interventions do not

immediately help, then time may. In relation to victims of trauma, having a better understanding of why one's body and brain reacts the way it does to certain stimuli is also important for treatment, including with improving self-esteem, in that "understanding the response, not the traumatic event, is critical to the successful treatment of trauma" (Porges, 2017, p. 56).

Interventions

Some researchers have argued that aiming to improve self-esteem is a fruitless task, as it is a 'measure' of one's self-worth, and therefore not self-worth itself, and that cultivating self-acceptance and mindfulness are better goals that accomplish the same outcome. Thompson & Waltz (2008) decided to test this notion in a study of 167 university students (118 females, 49 males; aged 18-52, average age of 19). The quality of universal self-acceptance (USA) was proposed by Ellis (1996) as a better alternative to the concept of self-esteem, saying it is better to measure how much individuals "fully accept themselves as valuable and enjoyable human beings *whether or not* they are self-efficacious and *whether or not* others approve of or love them". Mindfulness, in comparison, "involves adopting an attitude of non-judgment towards the moment-to-moment unfolding of one's experience... [and] maintaining one's attention in the present moment... to become less reactive to and more accepting of one's immediate experience" (Thompson & Waltz, 2008, p. 120). Participants completed two measures of everyday mindfulness (MAAS and CAMS-R), and measures of self-esteem (10-item Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) and unconditional self-acceptance (USA). Participants completed measures for each quality in groups of up to 15 at a time. Each quality had the following Cronbach's alpha scores: MAAS ($\alpha = .84$), CAMS-R ($\alpha = .79$), RSES ($\alpha = .87$), and USAQ ($\alpha = .79$); with a total above .70. The study found that mindfulness was equally related to both self-esteem and unconditional self-acceptance, and that mindfulness skills may offer a means to cultivate unconditional self-acceptance and to shift from an emphasis on self-esteem as a measure of worth. [See our write-up on Mindfulness for related information and interventions].

Public Speaking / Stage Fright

In Sharma et al.'s (2010) case study examples of cognitive behavioural therapy (CBT) used for individuals who stutter, they found that global self-esteem (measured using the RSES) was improved in three of the five male patients, two who showed clinically significant improvement, with the other two showing no improvement. Quality of life, however, improved in all patients. CBT sessions were an hour long each, held over four to six weeks, for 22 to 23 sessions in total, with 16 to 18 sessions being for therapeutic intervention and the rest for assessments. The CBT intervention included two phases focused on physical and cognitive techniques. Phase one included eight sessions of body relaxation and speech techniques, including Jacobson's Progressive Muscle Relaxation, mindfulness meditation, deep breathing,

humming and prolongation of speech. After phase one, a mid-assessment was conducted, and then cognitive techniques were introduced, including cognitive restructuring, problem solving and assertiveness. Therapy techniques were kept flexible to meet the needs of the individual patients. Improvement was assessed by an overall 'Improvement Criteria Analysis' based on pre-, mid-, and post-therapy data, with clinically significant changes considered 50% and above improvement in interventions. While these case study findings are particular for individuals with stuttering symptoms, the CBT techniques and their positive outcomes of reducing dysfunctional attitude, enhancing assertiveness, and improving quality of life may be extended to other individuals with low self-esteem.

Beauty Care

Richard et al. (2019) examined if beauty care interventions acted to reduce stress and improve quality of life, body image, and self-esteem in the immediate sense in 39 women with breast cancer, who experienced appearance-related side effects of cancer treatment (e.g., irritated or pale skin, loss of scalp hair, eyebrows, or eyelashes). Patients were randomly assigned either to an intervention group (n=20; avg age = 39.6) or to a control group (n = 19; avg age 37.4). The intervention consisted of a single-session group makeup workshop, a photo shoot, and receiving a professionally edited portrait and upper-body photos. The RSES 10-item was used to measure self-esteem ($\alpha = 0.786$ and $\alpha = 0.836$ across measurement points). Follow-ups at two and four weeks revealed that the intervention group reported fewer symptoms of depression, higher quality of life, and higher self-esteem as compared with baseline and compared with the control group. Both groups reported increases in body image. Follow-up at 8 weeks indicated moderate stability of the improvements.

Music therapy for enhancing self-esteem in academically stressed adolescents

Sharma & Jagdev (2012) cite past research showing how self-esteem and self-confidence have been found to be enhanced using music as a therapeutic tool and can reduce aggression in children. Their own study aimed to test the effect of enhancing self-esteem among academically stressed youth in a school in District Yamunanagar in Haryana, India, aged 15 to 18 (mean age 16.86). Sixty students with low self-esteem and high academic stress were identified out of 100 students who completed such measures. Thirty of these 60 students were selected for the experimental musical therapy group, and the other half as the control. Self-esteem was measured using the school form of Coopersmith's Self-Esteem Inventory (SEI; 1987). Each day for 15 days, students used headphones to listen to a 30-minute recording of a flute version of the melodic *Mian ki Todi raga*, traditionally known to be emotional moving and healing. The sessions took place as a group, but the students were seated so they could not see each other. After the last session, the SEI was again administered to both groups.

The results showed that individuals in the musical therapy group scored significantly higher in self-esteem (M = 45.80, SD = 6.13) compared to the control group (M = 28.93, SD = 5.92; $t = 10.85$, $p < .01$). Preintervention self-esteem scores were then compared with

postintervention scores from both groups, showing that the music therapy group's pre-intervention and postintervention self-esteem scores differed significantly ($t = 10.28$, $p < .01$), while the control group's did not. One cited limitation is the lack of follow-ups and cross-sectional design.

Online Intervention

Crisp et al. (2014) looked at the effect on self-esteem (measured using the 10-item RSES; alphas = 0.87–0.90), empowerment, perceived quality of life and perceived social support of two, 12-week online depression interventions when delivered alone and in combination. The sample included 298 adults (67.4% female; mean age = 43.9) displaying elevated psychological distress who were randomized to one of four conditions: an Internet Support Group (ISG); an automated Internet psycho-educational training program for depression (“e-couch”), with a depression literacy component, online versions of CBT, interpersonal therapy, applied relaxation, and physical activity programs; a combination of these conditions (ISG + “e-couch”); or an attention control website (“HealthWatch”) with information relating to well-being while avoiding information directly related to interventions for depression or stress. The control group were provided access to the internet training program after 6-months, for ethical reasons. Data were collected at baseline a week prior to commencement, 3-months at the conclusion of the intervention, 6-months and 12-months. Self-esteem increased in all groups overtime but was most marked in the combined group from baseline to post-intervention assessments, and in the combined or “e-couch” alone groups compared to the control. The ISG group also showed a significant increase in self-esteem over the control group at the 12-month assessment.

Exercise

Legrand (2014) examined the relationships between exercise and depression and the mediating role of physical self-perceptions, physical self-esteem, and global self-esteem in a group of women ($n=44$; median age 23) with elevated symptoms of depression and low socioeconomic status. The participants were randomized into a control group or a 7-week exercise-training group that involved two 60-minute sessions a week of instructor-led exercises on Tuesdays (fast walking and slow jogging around the participants' residences, and calisthenics) and Thursdays (group Zumba class). Data was collected over two years, and physical and global self-esteem was measured using the Physical Self-Inventory (ISP-25; Ninot, Delignières, & Fortes, 2000), a French adaptation of the Physical Self-Perceptions with an included global self-esteem scale. Global self-esteem was shown to improve only in the exercise group, with significant increases between weeks two and four, and then remained constant up to the end in week seven. Importantly, participants who evidenced a positive change in physical self-esteem and self-perceived physical condition in week four reported a significant reduction in their depression scores. [See our write-up on physical activity for related information and interventions]

Assessment

Hare Self-Esteem Scale (HSES; Hare, 1975; Shoemaker, 1980)

- Youth-focused scale.
- Factor analysis of the Hare Self-Esteem Scale yielded three factors corresponding to home, peer, and school self-esteem.
- Home self-esteem was significantly associated with social class; peer self-esteem, with recent family moves; and school self-esteem, significantly with test anxiety and reading and mathematics achievement.
- (See attachment)

Coopersmith Self-Esteem Inventory Adult Form (CSEI; Coopersmith, 1967)

- Measures attitudes toward self in the context of pre-post evaluation, individual diagnosis, or classroom screening, and demonstrates the relationship of academic achievement to personal satisfaction in school and adult life
- Available for purchase online: <https://www.mindgarden.com/85-coopersmith-self-esteem-inventory>
 - CSEI-AD (adult; ages 16+) = 25 items
 - CSEI-SC Form (school; ages 8-15) = 58 items
 - CSEI-SC Short Form = 25 items

Multidimensional Self-Esteem Inventory (MSEI; O'Brien & Epstein, 1988)

- Measures global self-esteem and its eight components: Competence, Lovability, Likability, Personal Power, Self-Control, Moral Self-Approval, Body Appearance, and Body Functioning.
- Contains two unique scales: 'Identity Integration', which measures global self-concept and 'Defensive Self-Enhancement', which differentiates between "truly high" and "defensively high" self-esteem
- 116 items: "The 4-page Test Booklet contains two parts. In Part 1, respondents report how accurately each of 61 items describes them. In Part 2, they report how frequently they experience each of an additional 55 items" (O'Brien & Epstein, 1988)
- All scales, except Defensive Self-Enhancement, demonstrated internal consistency reliability coefficients of .80 or higher
- Available for purchase online:
https://www.annarbor.co.uk/index.php?main_page=index&cPath=416_248_277

Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965; Appendix A)

- A 10-item, unidimensional scale that measures global self-worth by measuring both positive and negative feelings about the self.

- 4-point Likert response scale (strongly agree to strongly disagree)
- Scored 0-30, with a score of less than 15 indicating problematic low self-esteem
- Original study n = 5,024 high school students from 10 randomly selected schools in New York State
- Has been translated and adapted into various languages and used in 53 nations.
- Wongpakaran & Wongpakaran (2012) tested the validity of the original and revised version of the RSES in a Thai context. The original contained five positively worded and five negatively worded items; the revised version contained six positively worded and four negatively worded items.
 - Based on difficulties found in past studies, Question 8 ("I wish I could have more respect for myself") was changed so its wording was re-worded from negative to positive ("I think I am able to give myself more respect"), as respondents could have mistaken that item as having a positive rather than a negative meaning.
- The reliability scores for the original and revised were .86 and .84, respectively, but the revised "yielded a better model fit. The revised RSES demonstrated excellent fit statistics, with $\chi^2=29.19$ (df=19, n=187, p=0.063), GFI=0.970, TFI=0.969, NFI=0.964, CFI=0.987, SRMR=0.040 and RMSEA=0.054" (Wongpakaran & Wongpakaran, 2012).
- The RSES is the "most popular measure of global (i.e. domain general) trait self-esteem... [but unfortunately] individuals tend to respond systematically to positively and negatively valenced items regardless of their content, indicating the measure may reflect a response set" (Chavez & Heatherton, 2015, p. 365).

The Single-Item Self-Esteem Scale (SISE; Robins et al., 2001)

- Serves as a proxy for the RSE when research time is limited (Donnellan et al. 2015)
- Assesses global self-worth or the overall attitude one holds about oneself
- "The SISE asks the participant to rate the statement "I have high self-esteem" using a 5-point Likert-type scale, ranging from "not at all true of me" to "very true of me." Some researchers have used alternative item wordings ("My self-esteem is high", "I see myself as someone who has high self-esteem"), scale anchors ("strongly disagree" and "strongly agree"), and response formats (7- and 9-point Likert-type rating scales), with no appreciable effects on psychometric properties of the measure." (Donnellan et al. 2015)
- "Robins et al. (2001) reported a test-retest coefficient of .75, using the Heise (1969) procedure for estimating test-retest reliability from the pattern of auto-correlations over six waves of data spanning four years of college. Vazire and Mehl (2007) reported a test-retest coefficient of .79, as cited in Vazire et al. (2008, p. 1442)..." (Donnellan et al. 2015, p.22)
- Robins et al. (2001) reported correlations between the SISE and RSE of .75 in a sample of college students, .74 in a second sample of college students, and .80 in a community sample.

- Robins et al. (2001) found that higher scores on the SISE were associated with being male; more positive domain-specific self-evaluations; higher levels of Big Five Extraversion and Conscientiousness; lower levels of Big Five Neuroticism and shyness; higher levels of optimism; higher levels of psychological and physical health; and higher levels of peer-rated performance in a group interaction task.
- The overall pattern of convergent correlations was nearly identical for the SISE and the RSE (correlation between two columns of correlations = .98, with a very similar absolute level), supporting the validity of both scales.

Global Negative Self-Evaluation Scale

- Designed to assess global negative evaluations of self or general lack of self-worth.
- Based on the RSE (Rosenberg, 1965) because it is short, unidimensional, its items express global self-esteem, or lack thereof, and do not refer to specific events or situations.
- The GNSE was designed for children 10-15 years old, compared to the RSE of 15-18 years.
- The six items are: “At times I think I am no good at all”, “I feel I do not have much to be proud of”, “I certainly feel useless at times”, “All in all, I am inclined to feel that I am a failure”, “I would like to change many things about myself”, and “I have often wanted to be someone else”. The response categories ranged from “applies exactly” (1) to “does not apply at all” (6).” (Birkeland et al. 2012)

Feelings of Inadequacy Scale (FIS; Janis & Field, 1959; Appendix B)

- Measures trait self-esteem
- Asks participants to report general self-evaluative feelings over the course of the previous year.
- Original 23-items assess perceived social anxiety, self-consciousness, and feelings of personal worthlessness using a 5-item Likert scale (“very, fairly, slightly, not very, not at all”). Items score 0-4, for FIS range of 0-92, with low scores indicating high feelings of inadequacy or low self-esteem, and vice versa. The original 23-item version was based on 184 male and female high school junior students and had a split-half reliability coefficient of .83 and a Spearman-Brown coefficient of .91.
- Eagly’s (1967) revision was based on a sample of 33 male and 160 female college students, and reduced the scale to 20 items, for a split-half reliability of .72 and .88.
- Fleming & Watt’s (1980) revisions were based on a sample of 106 male and 259 female college students. This version was revised to fit with Shavelson et al.’s (1976) hierarchical facet model of self-esteem and included five new items pertaining to school abilities (4) and assertiveness (1) under three subscales: social confidence, school abilities, and self-regard. Response options were changed to a 7-point Likert scale. Cronbach alpha scores = .90

- Fleming and Courtney's (1984) revisions were based on the sample, were again intended to approximate Shavelson et al.'s model, included 8 items for a total of 36, and two additional subscales: physical appearance and physical ability (along with social confidence, school abilities, and self-regard). Cronbach alpha scores = .92
- This scale was identified as being a valid measure of both facet and global self-esteem (Blascovich and Tomaka, 1991, p. 124).

Contingencies of Self-Worth Scale (Crocker et al., 2003; Appendix C)

- 35-items
- 7 domains of self-esteem: "academics, appearance, approval from others, competition, family support, God's love, and virtue"
- "Comparison of Cronbach's alphas across gender groups showed that subscales were reliable for men $\alpha \geq .79$) and women ($\alpha \geq .81$) . . . Although the alphas for some of the subscales were lower for Asians (ranging from .77 for Others' Approval to .95 for God's Love) than the other groups, these differences in reliability were only modest in magnitude, supporting the notion that the seven subscales are meaningful for Asians also" (Crocker et al., 2003, p. 900).

Implicit Association Test (IAT; Greenwald & Farnham, 2000)

- Experimental method to tap into participant's automatic association-making between a concept and attribute by having them answer questions and tasks quickly.
- Murray et al. (2014) studied low self-esteem and automatic partner attitudes using assessment of daily journal entries by having participants complete both the RSES and the "seven blocks" of the partner-specific IAT (Murray et al., 2011). Journals included 82 events to tap experiences at work, home, and with the spouse, and 42 feelings to tap self-esteem, mood, trust in the partner's caring, perceptions of the partner, and evaluations of the relationship, all of which were randomized each day.
 - "Participants categorized words belonging to four categories as follows: (1) pleasant words (e.g., vacation, pleasure), (2) unpleasant words (e.g., bomb, poison), (3) words associated with the partner (e.g., partner's first name, last name, nickname), and (4) words not associated with the partner (e.g., first name not associated with partner)... The critical blocks consisted of the compatible pairing blocks (practice and test blocks), in which participants used the same response key to respond to pleasant and partner words, and the incompatible pairing blocks (practice and test blocks), in which participants used the same response key to respond to unpleasant and partner words. We computed IAT scores for each participant following the improved scoring algorithm procedure recommended by Greenwald, Nosek, and Banaji (2003). Higher scores reflect more positive automatic attitudes" (Murray et al., 2014, p. 175).

The Implicit Self-Evaluation Survey (ISES; Hetts, Sakuma, & Pelham, 1999)

- Participants complete two alternating tasks used to assess implicit self-esteem: (a) a 12-item questionnaire about personality and attitudes arranged into three, four-item sections, and scored using a 7-item Likert-scale ratings (rated from 1 = not at all true, to 7 = very true); and (b) a word-completion task where participants complete the first missing letter of a word-fragment that appeared three times sequentially in the same line (e.g., OOD, OOD, OOD). After each question is a word-completion task.
 - “One section consisted of four filler items that separated the remaining two sections, whose items act as primes. One of these sections aimed to prime participants’ thoughts about their individual identities (e.g., I am very sensitive to my inner thoughts and feelings). The other section aimed to prime participants’ thoughts about their collective identities (e.g., The groups that I am a member of are valued in society).” (Kocas & Curtis, 2009, p. 18).
 - “Participants were required: (a) to use a different letter for each of the three word fragments to create three separate words and (b) to complete the words in the order that the answers came to mind. The word-completion task aimed to elicit four antonym pairs: good-bad, love-hate, nice-mean, and fine-poor. Target word stems from the same pair (e.g., _OOD and _AD, for good and bad) were never put in the same section. The order of the word-completion task was held constant to ensure the target words were paired with equal frequency with a prime item from both the individual and collective identity sections.”
- “Participants’ implicit self-esteem scores are calculated by considering how quickly they make positive (e.g., GOOD) versus negative (e.g., BAD) words after being primed to think about the self” (Pelham et al., 2005)
- “this measure is sensitive to early socialization experiences in ways that traditional, explicit measures are not. For example, they found that Eastern immigrants to US score lower on this measure of implicit self-esteem, despite having Rosenberg scores that are indistinguishable from those of US natives (see also Hetts & Pelham, 2001)” (Pelham et al., 2005).
 - “an index of the overall positivity of participants’ implicit self-evaluations was constructed by subtracting the average serial position of the positive target words (1, 2, or 3–4 was assigned if the target word was not listed) from the average serial position of the corresponding negative target words. These scores were then averaged for the four word-pairs” (Kocan & Curtis, 2009)
 - As described in Kocan & Curtis (2009), and Pelham et al. (2005)

Coopersmith Self-Esteem Inventory (CSEI; Coopersmith, 1967, 1981, 1987, 2002; see Potard, 2017)

- Self-report questionnaire designed to measure attitudes toward the self in a variety of areas (family, peers, school, and general social activities) for adolescents and adults.

- 50-items, with an additional 8-items used for a lie scale (defensive responses)
- Yields an overall score and four separate scores representing specific aspects of self-esteem: general self, social self-peers, home parents, and school academic (or professional in the adult version).
- Scored using a dichotomous scale, responding to whether questions are “like me” or “unlike me”. Higher score = higher self-esteem
- Adult Form (CSEI-A) for ages 16+
 - Example items: Things usually don’t bother me; I find it very hard to talk in front of a group; There are lots of things about myself I’d change if I could; I can make up my mind without too much trouble; I’m a lot of fun to be with.
- School Form (CSEI-SC) for ages 8-15.
 - Example items: Things usually don’t bother me; I find it very hard to talk in front of the class
- Short Form (SF-CSEI or SEI-SF) for limited time = 25-items
 - For the short form, while other studies “have identified a three-factor structure: personal self-esteem, self-esteem derived from parents, and self-esteem derived from peers... none of the studies of the SF-CSEI’s validity have revealed a general self-esteem factor, contrary to what Coopersmith postulated” (Potard, 2017)
- “Factor analyses of both [full] versions have been demonstrated to be troublesome... Three, five, or eight empirical factors have been described in the various studies exploring the CSEI’s factor structure” (Potard, 2017)
- Cronbach alpha = “The various forms of the CSEI have an internal consistency coefficient of between .80 and .92 across diverse cultural populations... The CSEI was found to have a test-retest reliability of approximately .70 for adolescents over periods of 5–156 weeks and .80 for adults over periods of 6–58 weeks.”
 - Short-form: Cronbach’s alpha ranged from 0.68 to 0.77
 - “Internal consistency (alpha) estimates ranged from 0.61 to 0.71 for subscales. Overall score reliability was estimated at 0.86 (Johnson et al, 1983). Test-retest reliability was estimated in separate studies and ranged from 0.64 (three-year interval (Rubin, 1978)) to 0.88 (five week interval (Coopersmith, 1967)).”
- Criticism: “[1] its factor structure is debated.... [2] respondents cannot express neutral or moderate attitudes... Responses are more likely to be affected by social desirability bias. In the latter case, the lie scale score emphasizes an association between high self-esteem and social conformism. [3] studies (e.g., Chapman and Mullis 2002) suggested a gender bias within items of the SF-CSEI.” (Potard, 2017)
- The measures are available to purchase here: <https://www.mindgarden.com/85-coopersmith-self-esteem-inventory#about>

Collective Self-Esteem Scale (CSES; CSES-R; Luhtanen & Crocker, 1992; Appendix D)

- Used to measure aspects of individuals' self-esteem in relation to how they interact with others and the group they consider themselves to be a part of.
- Asks respondents to consider their perceptions and feelings related to social group memberships that they possess based on ascribed characteristics as sex, race, religion, and ethnicity
- A 16-item scale that measures four types of self-esteem associated with one's group:
 - (1) Membership Esteem –how good or worthy a member of the group one is.
 - (2) Private Collective Self-Esteem –how good one's social groups are.
 - (3) Public Collective Self-Esteem –how one believes others evaluate one's social groups
 - (4) Importance to Identity – how important one's group is to one's self concept.
- 7-item Likert response scale
- Has a Race-specific version (CSES-R). Instead of assessing one's level of esteem related to social group membership, items are re-worded to ask respondents to consider their race in response to each item. For example, the item "I feel good about the social groups I belong to" would be modified to "I feel good about the race I belong to."
- "alpha coefficients ranged from .83 to .88. Item-total correlations ranged from .51 to .80 for the subscales and from .40 to .71 for the total scale, and the average item-total correlations ranged from .55 to .75." (Luhtanen & Crocker, 1995, p. 306)
- "Reliability analyses again indicated that the scale and its subscales are internally consistent, revealing substantial alphas (ranging from .73 for the Membership subscale to .80 for the Public subscale; total scale alpha was .85) and item-total correlations (ranging from .45 to .66 for the subscales and from .37 to .59 for the total scale; means are reported in Table 3). Similar results were obtained from Studies 2 and 3" (p. 307)
- For revised (CSES-R): "Alpha coefficients were .80, .90, .77, .80, and .88 for Membership, Private, Public, Identity, and total revised scale, respectively." (p. 314)
- Amiot & Hornsey (2008) reported the range of Cronbach alphas for each subscale from .72 to .85.
 - They also adapted the Contingencies of Self-Worth with Collective Self-Esteem Scale to create the Collective Self-Esteem Contingency-Competition (CSEC-C), with an alpha of .83. (e.g., "My own worth as a Canadian is influenced by how well Canada does compared to other countries").

Self-Esteem Index (SEI; Brown & Alexander, 1991)

- Measures how adolescents and children perceive and value themselves, and is used to identify problems (behavior, emotional, adjustment, self-esteem), confirm referrals, and plan a method for solving the problems (goals, meetings, etc.)
- 80-item
- 4-point scale
- Duration = approx. 35 mins

- Subscales: Familial Acceptance; Academic Competence; Peer Popularity; Personal Security; Self-Esteem Quotient
- Alpha coefficients = between 0.80 and 0.90 for age 11; between 0.70 to 0.80 for age 8.
 - low scores for the SEI correlated with other self-esteem measures such as the Piers-Harris Children's Self-Concept Scale (0.29) and the Coopersmith Self-Esteem Inventory. Samples for the validity data, also, were questionable due to few subjects (less than 30 student) and the limited age ranges.
- Available for purchase here
http://www.slosson.com/onlinecatalogstore_i13238641.html?catId=384622

State Self-Esteem Scale (SSES; Heatherton and Polivy, 1991)

- Measures state self-esteem
- A 20-item scale that measures a participant's self-esteem at a given point in time.
- The 20 items are subdivided into 3 components of self-esteem: performance (e.g., I feel confident in my abilities), social (e.g., I feel concerned about the impression that I am making), and appearance self-esteem (e.g., I am dissatisfied with my weight).
- 5-point scale (1= not at all, 2= a little bit, 3= somewhat, 4= very much, 5= extremely).
- Info and questionnaire found here:
 - Ikegami (2002) used SSES in a Japanese context: "Since the alpha coefficients changed very little even if items were deleted (ranging from .76 to .79), the total self-esteem score was computed by adding the 20 item scores to show that the greater score might indicate higher self-esteem (Cronbach's alpha = .787)" (Ikegami, 2002, p. 25)
 - Merz & Roesch (2011) Cronbach's alphas: performance = .85, academic = .83, social = .86.
- Full measure can be found here:
https://fetzer.org/sites/default/files/images/stories/pdf/selfmeasures/Self_Measures_f_or_Self-Esteem_STATE_SELF-ESTEEM.pdf

Unconditional Self-Acceptance Questionnaire (USAQ; Chamberlain & Haaga, 2001)

- Found in Thompson & Waltz, 2008, referencing Ellis (1996)
- Based on the notion that the construct of self-esteem reflects unhealthy attitudes, USAQ measures the extent to which individuals accept themselves in a way that is not contingent upon self-evaluation.
- 20-item
- 7-point Likert scale from 1 (almost always untrue) to 7 (almost always true)
- Internal consistency is high ($\alpha = .86$).
- "The USAQ has been shown to correlate with the RSES, $r(103) = .56, p < .001$, suggesting some overlap in constructs; however, although high self-esteem correlates with

narcissism, high self-acceptance does not... Convergent and discriminant validity appear to be acceptable.”

Other Notes

Positive self-talk

- People with very low-self esteem may feel worse about themselves for reciting these positive affirmations because they do not fully believe the statements themselves (e.g., “I am a lovable person”), they then see themselves as liars on top of whatever other negative self-beliefs they hold (and say, e.g., “but really I’m not loveable at all!”). In contrast, people with already high-esteem saw a slight improvement in self-esteem scores when reciting these mantras (Wood et al., 2009).
- This is addressed in Hayes et al.’s (2011) book on Acceptance and Commitment Therapy (ACT)
 - Programs to intervene and change conceptualizations of the self can backfire and produce weak or undesirable results, given that people with pre-existing mental health problems often judge themselves too severely. School programs or therapeutic interventions to boost positive self-image may just as likely boost unhealthy narcissism (Baumeister et al., 2003).

Posture

Some research suggests that confidence, self-esteem and self-evaluations can be influenced by body posture, with individuals showing more positive self-evaluations when writing or speaking in confident positions (back straight and chest out) compared to doubtful postures (slouched forward with back curved), head manipulation (nodding rather than shaking) affecting confidence in the validity of one’s thoughts, smiling influencing confidence and self-assurance, and higher self-esteem when handwriting with one’s dominant hand (Briñol & Petty, 2003; Briñol et al., 2009). The authors note that individuals with messy handwriting in general may also experience low self-esteem, but this may be done away by writing in another style (e.g., typing).

Reference

- Alesi, M., Rappo, G., & Pepi, A. (2012). Self-esteem at school and self-handicapping in childhood: comparison of groups with learning disabilities. *Psychological Reports*, 111(3), 952–962. <https://doi.org/10.2466/15.10.PRO.111.6.952-962>
- Arata, C. M., Langhinrichsen-Rohling, J., Bowers, D., & O’Farrill-Swails, L. (2005). Single versus multi-type maltreatment: An examination of the long-term effects of child abuse. *Journal of Aggression, Maltreatment & Trauma*, 11(4), 29–52. https://doi.org/10.1300/J146v11n04_02
- Aydm, B., & San, S. V. (2011). Internet addiction among adolescents: The role of self-esteem. *Procedia -Social and Behavioral Sciences*, 15, 3500–3505. <https://doi.org/10.1016/j.sbspro.2011.04.325>
- Baiocco, R., Chirumbolo, A., Bianchi, D., Ioverno, S., Morelli, M., & Nappa, M. (2017). How HEXACO personality traits predict different selfie-posting behaviors among adolescents and young adults. *Frontiers in Psychology*, 7. <https://doi.org/10.3389/fpsyg.2016.02080>
- Baker, R. K., & White, K. M. (2010). Predicting adolescents’ use of social networking sites from an extended theory of planned behaviour perspective. *Computers in Human Behavior*, 26(6), 1591–1597. <https://doi.org/10.1016/j.chb.2010.06.006>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman
- Barry, C. T., Doucette, H., Loflin, D. C., Rivera-Hudson, N., & Herrington, L. L. (2015). “Let me take a selfie”: Associations between self-photography, narcissism, and self-esteem. *Psychology of Popular Media Culture*, 6(1), 48–60. <https://doi.org/10.1037/ppm0000089>
- Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, 4(1), 1–44. <https://doi.org/10.1111/1529-1006.01431>
- Baumeister, R., Campbell, J., Krueger, J., & Vohs, K. (2005). Exploding the self-esteem myth. *Scientific American Mind*, 16(4), 50-57. <https://doi.org/10.1038/scientificamericanmind1205-50>
- Beck, J. G., Tran, H. N., Dodson, T. S., Henschel, A. V., Woodward, M. J., & Eddinger, J. (2016). Cognitive trauma therapy for battered women: Replication and extension. *Psychology of Violence*, 6(3), 368–377. <https://doi.org/10.1037/vio0000024>
- Beech, M. (2020, March 26). *COVID-19 Pushes Up Internet Use 70% And Streaming More Than 12%, First Figures Reveal*. Retrieved from <https://www.forbes.com/sites/markbeech/2020/03/25/covid-19-pushes-up-internet-use-70-streaming-more-than-12-first-figures-reveal/#7c1270f73104>
- Birkeland, M. S., Melkevik, O., Holsen, I., & Wold, B. (2012). Trajectories of global self-esteem development during adolescence. *Journal of adolescence*, 35(1), 43-54.

- Błachnio, A., Przepiorka, A., & Rudnicka, P. (2016). Narcissism and self-esteem as predictors of dimensions of Facebook use. *Personality and Individual Differences, 90*, 296–301. <https://doi.org/10.1016/j.paid.2015.11.018>
- Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (Vol. 1, pp. 115-160). New York: Academic Press.
- Blom, V. (2011). Striving for self-esteem: Conceptualizations and role in burnout: (529822013-001) [Data set]. American Psychological Association. <https://doi.org/10.1037/e529822013-001>
- Bong, M., & Skaalvik, E. M. (2002). Academic self-concept and self-efficacy: How different are they really? *Educational Psychology Review, 15*, 1-40. <https://doi.org/10.1023/A:1021302408382>
- Brewer, G., & Kerlake, J. (2015). Cyberbullying, self-esteem, empathy and loneliness. *Computers in Human Behavior, 48*, 255–260. <https://doi.org/10.1016/j.chb.2015.01.073>
- Carlisle, N., & Rofes, E. (2007). School bullying: Do adult survivors perceive long-term effects? *Traumatology, 13*(1), 16–26. <https://doi.org/10.1177/1534765607299911>
- Cénat, J., Hébert, M., Blais, M., Lavoie, F., Guerrier, M., & Derivois, D. (2014). Cyberbullying, psychological distress and self-esteem among youth in Quebec schools. *Journal of Affective Disorders, 169*, 7-9. <https://doi.org/10.1016/j.jad.2014.07.019>
- Charles, S., Reynolds, C., & Gatz, M. (2001). Age-related differences and change in positive and negative affect over 23 years. *Journal of Personality and Social Psychology, 80*(1), 136-151. <https://doi.org/10.1037/0022-3514.80.1.136>
- Chavez, R. S., & Heatherton, T. F. (2015). Multimodal frontostriatal connectivity underlies individual differences in self-esteem. *Social Cognitive and Affective Neuroscience, 10*(3), 364–370. <https://doi.org/10.1093/scan/nsu063>
- Cole, S. W., Capitanio, J. P., Chun, K., Arevalo, J. M. G., Ma, J., & Cacioppo, J. T. (2015). Myeloid differentiation architecture of leukocyte transcriptome dynamics in perceived social isolation. *Proceedings of the National Academy of Sciences, 112*(49), 15142–15147. <https://doi.org/10.1073/pnas.1514249112>
- Cooper, K., Smith, L. G. E., & Russell, A. (2017). Social identity, self-esteem, and mental health in autism. *European Journal of Social Psychology, 47*, 844–854. <http://dx.doi.org/10.1002/ejsp.2297>
- Crisp, D., Griffiths, K., Mackinnon, A., Bennett, K., & Christensen, H. (2014). An online intervention for reducing depressive symptoms: Secondary benefits for self-esteem, empowerment and quality of life. *Psychiatry Research, 216*(1), 60–66. <https://doi.org/10.1016/j.psychres.2014.01.041>
- Crocker, J., Luhtanen, R. K., Cooper, M. L., & Bouvrette, A. (2003). Contingencies of self-worth in college students: Theory and measurement. *Journal of Personality and Social Psychology, 85*(5), 894–908. <https://doi.org/10.1037/0022-3514.85.5.894>
- Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin, 130*(3), 392–414. <https://doi.org/10.1037/0033-2909.130.3.392>

- Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review*, *108*(3), 593–623. <https://doi.org/10.1037/0033-295X.108.3.593>
- Dagnan, D., & Sandhu, S. (2001). Social comparison, self-esteem and depression in people with intellectual disability. *Journal of Intellectual Disability Research*, *43*(5), 372–379. <https://doi.org/10.1046/j.1365-2788.1999.043005372.x>
- Di Paula, A., & Campbell, J. D. (2002). Self-esteem and persistence in the face of failure. *Journal of Personality and Social Psychology*, *83*(3), 711–724. <https://doi.org/10.1037/0022-3514.83.3.711>
- Dolan, P. (2012). Travelling through social support and youth civic action on a journey towards resilience. In M. Ungar (ed.) *The social ecology of resilience*. New York: Springer.
- Elfering, A., & Grebner, S. (2012). Getting used to academic public speaking: Global self-esteem predicts habituation in blood pressure response to repeated thesis presentations. *Applied Psychophysiology and Biofeedback*, *37*(2), 109–120. <https://doi.org/10.1007/s10484-012-9184-3>
- Ellis, A. (1996). How I learned to help clients feel better and get better. *Psychotherapy: Theory, Research, Practice, Training*, *33*(1), 149–151. <https://doi.org/10.1037/0033-3204.33.1.149>
- Emery, L. F., Muise, A., Dix, E. L., & Le, B. (2014). Can you tell that I'm in a relationship? Attachment and relationship visibility on Facebook. *Personality and Social Psychology Bulletin*, *40*(11), 1466–1479. <https://doi.org/10.1177/0146167214549944>
- Fanti, K., & Henrich, C. (2014). Effects of self-esteem and narcissism on bullying and victimization during early adolescence. *The Journal of Early Adolescence*, *35*(1), 5-29. <https://doi.org/10.1177/0272431613519498>
- Fitzpatrick, S., & Bussey, K. (2011). The development of the Social Bullying Involvement Scales. *Aggressive Behavior*, *37*(2), 177–192. <https://doi.org/10.1002/ab.20379>
- Fleming, J. S., & Courtney, B. E. (1984). The dimensionality of self-esteem: II. Hierarchical facet model for revised measurement scales. *Journal of Personality and Social Psychology*, *46*(2), 404–421. <https://doi.org/10.1037/0022-3514.46.2.404>
- Forest, A. L., & Wood, J. V. (2012). When social networking is not working: Individuals with low self-esteem recognize but do not reap the benefits of self-disclosure on Facebook. *Psychological Science*, *23*(3), 295–302. <https://doi.org/10.1177/0956797611429709>
- Gallego, F. A., Laroulet, C., & Repetto, A. (2018). What's behind her smile? A randomized evaluation of dental care vouchers and socioeconomic outcomes. *AEA Randomized Controlled Trials*. LACEA Working Paper Series, No. 0018
- Gonsalkorale, K., & Williams, K. D. (2007). The KKK won't let me play: Ostracism even by a despised outgroup hurts. *European Journal of Social Psychology*, *37*(6), 1176–1186. <https://doi.org/10.1002/ejsp.392>
- Greenberg, J. (2008). Understanding the Vital Human Quest for Self-Esteem. *Perspectives on Psychological Science*, *3*(1), 48–55. <https://doi.org/10.1111/j.1745-6916.2008.00061.x>

- Greenwald, A. G., & Farnham, S. D. (2000). Using the Implicit Association Test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology*, 79(6), 1022-1038. <https://doi.org/10.1037//0022-3514.79.6.1022>
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, 74(6), 1464-1480.
- Grossmann, T. (2013). The role of medial prefrontal cortex in early social cognition. *Frontiers in Human Neuroscience*, 7. <https://doi.org/10.3389/fnhum.2013.00340>
- Hayes, S., Strosahl, K., & Wilson, K. (2011). *Acceptance and commitment therapy: The process and practice of mindful change*. New York: The Guilford Press.
- Herring, M. P., O'Connor, P. J., & Dishman, R. K. (2014). Self-esteem mediates associations of physical activity with anxiety in college women. *Medicine & Science in Sports & Exercise*, 46(10), 1990–1998. <https://doi.org/10.1249/MSS.0000000000000323>
- Hetts, J. J., Sakuma, M., & Pelham, B. W. (1999). Two roads to positive regard: Implicit and explicit self-evaluation and culture. *Journal of Experimental Social Psychology*, 35(6), 512–559. <https://doi.org/10.1006/jesp.1999.1391>
- Hill, S. E., & Buss, D. M. (2006). The evolution of self-esteem. In M. H. Kernis (Ed.), *Self-esteem issues and answers: A sourcebook of current perspectives*, p. 328-333. New York: Psychology Press.
- Huang, C.-L., Yang, S. C., & Chen, A.-S. (2015). Motivations and gratification in an online game: Relationships among players' self-esteem, self-concept, and interpersonal relationships. *Social Behavior and Personality: An International Journal*, 43(2), 193–203. <https://doi.org/10.2224/sbp.2015.43.2.193>
- Hughes, R. B., Robinson-Whelen, S., Taylor, H. B., Swedlund, N., & Nosek, M. A. (2004). Enhancing self-esteem in women with physical disabilities. *Rehabilitation Psychology*, 49(4), 295–302. <https://doi.org/10.1037/0090-5550.49.4.295>
- Ikegami, T. (2002). The role of state self-esteem in positive mood effects on person impression: When does a positive mood lead to a favorable view of others? *Japanese Psychological Research*, 44(1), 20–33. <https://doi.org/10.1111/1468-5884.00006>
- Jaaffar, A. H., Ibrahim, H. I., Rajadurai, J., & Sohail, M. S. (2019). Psychological impact of work-integrated learning programmes in Malaysia: The moderating role of self-esteem on relation between self-efficacy and self-confidence. *International Journal of Educational Psychology*, 8(2), 188-213. <https://doi.org/10.17583/ijep.2019.3389>
- Jackson, C., Cavenagh, P., & Clibbens, J. (2014). Communication and self-esteem in adults with Down syndrome. *International Journal of Language and Communication Disorders*, 49(3), 275-287. <https://doi.org/10.1111/1460-6984.12060>
- Johnson, M. (2011). Active and passive maladaptive behaviour patterns mediate the relationship between contingent self-esteem and health. *Personality and Individual Differences*, 51(2), 178–182. <https://doi.org/10.1016/j.paid.2011.03.039>
- Johnson, M., & Blom, V. (2007). Development and validation of two measures of contingent self-esteem. *Individual Differences Research*, 5(4), 300-328.

- Joiner, T. E., Katz, J., & Lew, A. (1999). Harbingers of depressotypic reassurance seeking: Negative life events, increased anxiety, and decreased self-esteem. *Personality and Social Psychology Bulletin*, 25(5), 632–639.
<https://doi.org/10.1177/0146167299025005008>
- Jongeneel, A., Pot-Kolder, R., Counotte, J., van der Gaag, M., & Veling, W. (2018). Self-esteem moderates affective and psychotic responses to social stress in psychosis: A virtual reality study. *Schizophrenia Research*, 202, 80–85.
<https://doi.org/10.1016/j.schres.2018.06.042>
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology*, 83(3), 693–710.
<https://doi.org/10.1037/0022-3514.83.3.693>
- Karayagiz Muslu, G., Coşkun Cenk, S., & Sarlak, D. (2017). An analysis of the relationship between high school students' tendency toward violence, self-esteem, and competitive attitude. *Journal of Interpersonal Violence*, 1-21.
<https://doi.org/10.1177/0886260517723742>
- Karpinski, A. (2004). Measuring self-esteem using the Implicit Association Test: The role of the other. *Personality and Social Psychology Bulletin*, 30(1), 22-34.
<https://doi.org/10.1177/0146167203258835>
- Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry*, 14(1), 1–26. https://doi.org/10.1207/S15327965PLI1401_01
- Kim, E., Lee, J.-A., Sung, Y., & Choi, S. M. (2016). Predicting selfie-posting behavior on social networking sites: An extension of theory of planned behavior. *Computers in Human Behavior*, 62, 116–123. <https://doi.org/10.1016/j.chb.2016.03.078>
- Kirkpatrick, L. A., & Ellis, B. J. (2001). An evolutionary-psychological approach to self-esteem: Multiple domains and multiple functions. In G. J. O. Fletcher & M. S. Clark (Eds.), *Blackwell handbook of social psychology: Interpersonal processes* (pp. 411-436). Oxford, UK: Blackwell Publishers.
- Kitayama, S., & Rarasawa, M. (1997). Implicit self-esteem in Japan: Name letters and birthday numbers. *Personality and Social Psychology Bulletin*, 23(7), 736-742.
<https://doi.org/10.1177/0146167297237006>
- Kocan, S. E., & Curtis, G. J. (2009). Close encounters of the initial kind: Implicit self-esteem, name-letter similarity, and social distance. *Basic and Applied Social Psychology*, 31(1), 17–23. <https://doi.org/10.1080/01973530802659752>
- Kok, B. E., Coffey, K. A., Cohn, M. A., Catalino, L. I., Vacharkulksemsuk, T., Algoe, S. B., Brantley, M., & Fredrickson, B. L. (2013). How positive emotions build physical health: Perceived positive social connections account for the upward spiral between positive emotions and vagal tone. *Psychological Science*, 24(7), 1123–1132.
<https://doi.org/10.1177/0956797612470827>
- Kovacevic Pavicic, D., Kolceg, M., Lajnert, V., Pavlic, A., & Spalj, S. (2020). Changes in quality of life induced by tooth whitening are not influenced by global self-esteem: A randomized

- double-blind placebo-controlled trial. *Odontology*, *108*(1), 143–151.
<https://doi.org/10.1007/s10266-019-00442-6>
- Krämer, N., & Winter, S. (2008). Impression management 2.0: The relationship of self-esteem, extraversion, self-efficacy, and self-presentation within social networking sites. *Journal of Media Psychology*, *20*(3), 106-116. <https://doi.org/10.1027/1864-1105.20.3.106>
- Kubany, E. S., & Watson, S. B. (2002). Cognitive trauma therapy for formerly battered women with PTSD: Conceptual bases and treatment outlines. *Cognitive and Behavioral Practice*, *9*(2), 111–127. [https://doi.org/10.1016/S1077-7229\(02\)80005-0](https://doi.org/10.1016/S1077-7229(02)80005-0)
- Kumar, M., Kalakbandi, V., Prashar, S., Neelu, & Parashar, A. (2017). Overcoming the effect of low self-esteem on public speaking anxiety with mindfulness-based interventions. *DECISION*, *44*(4), 287–296. <https://doi.org/10.1007/s40622-017-0166-4>
- Lakey, C. E., Hirsch, J. K., Nelson, L. A., & Nsamenang, S. A. (2014). Effects of contingent self-esteem on depressive symptoms and suicidal behavior. *Death Studies*, *38*(9), 563–570. <https://doi.org/10.1080/07481187.2013.809035>
- Leary, M. R. (2003). Commentary on self-esteem as an interpersonal monitor: The sociometer hypothesis (1995). *Psychological Inquiry*, *14*(3–4), 270–274. <https://doi.org/10.1080/1047840X.2003.9682891>
- Leary, M., Tambor, E., Terdal, S., & Downs, D. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, *68*(3), 518-530. <https://doi.org/10.1037/0022-3514.68.3.518>
- Lee, S., Kim, M., & Suh, J. (2008). Effects of horticultural therapy of self-esteem and depression of battered women at a shelter in Korea. *Acta Horticulturae* (790), 139-142. <https://doi.org/10.17660/actahortic.2008.790.19>
- Legrand, F. (2014). Effects of exercise on physical self-concept, global self-esteem, and depression in women of low socioeconomic status with elevated depressive symptoms. *Journal of Sport and Exercise Psychology*, *36*(4), 357-365. <https://doi.org/10.1123/jsep.2013-0253>
- Li, J., Liu, M., Peng, M., Jiang, K., Chen, H., & Yang, J. (2019). Positive representation of relational self-esteem versus personal self-esteem in Chinese with interdependent self-construal. *Neuropsychologia*, *134*, 107195. <https://doi.org/10.1016/j.neuropsychologia.2019.107195>
- Liston, M., Frost, A. A. M., & Mohr, P. B. (2003). The prediction of musical performance anxiety. *Medical Problems of Performing Artists*, *6*, 120-125.
- Lorr, M., & Wunderlich, R. (1988). Self-esteem and negative affect. *Journal of Clinical Psychology*, *44*(1), 36-39. [https://doi.org/10.1002/1097-4679\(198801\)44:1%3C36::AID-JCLP2270440107%3E3.0.CO;2-B](https://doi.org/10.1002/1097-4679(198801)44:1%3C36::AID-JCLP2270440107%3E3.0.CO;2-B)
- Lu, H., Li, X., Wang, Y., Song, Y., & Liu, J. (2018). The hippocampus underlies the association between self-esteem and physical health. *Scientific Reports*, *8*(1). doi: 10.1038/s41598-018-34793-x

- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18(3), 302-318.
<https://doi.org/10.1177/0146167292183006>
- Lukez, A., Pavlic, A., Trinajstic Zrinski, M., & Spalj, S. (2014). The unique contribution of elements of smile aesthetics to psychosocial well-being. *Journal of Oral Rehabilitation*, 42(4), 275-281. doi:10.1111/joor.12250
- Marshall, T. C., Lefringhausen, K., & Ferenczi, N. (2015). The Big Five, self-esteem, and narcissism as predictors of the topics people write about in Facebook status updates. *Personality and Individual Differences*, 85, 35–40.
<https://doi.org/10.1016/j.paid.2015.04.039>
- Martens, A., Greenberg, J., & Allen, J. (2008). Self-Esteem and autonomic physiology: Parallels between self-esteem and cardiac vagal tone as buffers of threat. *Personality and Social Psychology Review*, 12(4), 370-389. <https://doi.org/10.1177/1088868308323224>
- Martens, A., Greenberg, J., Allen, J., Hayes, J., Schimel, J., & Johns, M. (2010). Self-esteem and autonomic physiology: Parallels between self-esteem and cardiac vagal tone as buffers of threat. *Journal of Research in Personality*, 44(5), 573-584.
<https://doi.org/10.1016/j.jrp.2010.07.001>
- Merz, E. L., & Roesch, S. C. (2011). Modeling trait and state variation using multilevel factor analysis with PANAS daily diary data. *Journal of Research in Personality*, 45(1), 2–9.
<https://doi.org/10.1016/j.jrp.2010.11.003>
- Miyahara, M., & Piek, J. (2006). Self-esteem of children and adolescents with physical disabilities: Quantitative evidence from meta-analysis. *Journal of Developmental and Physical Disabilities*, 18(3), 219–234. <https://doi.org/10.1007/s10882-006-9014-8>
- Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, 12(4), 177–196.
<https://doi.org/10.1207>
- Morton, M. H., & Montgomery, P. (2013). Youth Empowerment Programs for Improving Adolescents' Self-Efficacy and Self-Esteem: A Systematic Review. *Research on Social Work Practice*, 23(1), 22–33. <https://doi.org/10.1177/1049731512459967>
- Murray, S. L., Gomillion, S., Holmes, J. G., & Harris, B. (2015). Inhibiting self-protection in romantic relationships: Automatic partner attitudes as a resource for low self-esteem people. *Social Psychological and Personality Science*, 6(2), 173–182.
<https://doi.org/10.1177/1948550614549386>
- Norton, C. L., Wisner, B. L., Krugh, M., & Penn, A. (2014). Helping youth transition into an alternative residential school setting: Exploring the effects of a wilderness orientation program on youth purpose and identity complexity. *Child and Adolescent Social Work Journal*, 31(5), 475–493. <https://doi.org/10.1007/s10560-014-0331-y>
- Nosek, M. A., Hughes, R. B., Swedlund, N., Taylor, H. B., & Swank, P. (2003). Self-esteem and women with disabilities. *Social Science & Medicine*, 56(8), 1737–1747.
[https://doi.org/10.1016/S0277-9536\(02\)00169-7](https://doi.org/10.1016/S0277-9536(02)00169-7)

- O'Brien, E. J., & Epstein, S. (1988). MSEI: The multidimensional self-esteem inventory: Professional manual. Psychological Assessment Resources, Incorporated.
- Orth, U., & Robins, R. W. (2013). Understanding the link between low self-esteem and depression. *Current Directions in Psychological Science*, 22(6), 455–460. <https://doi.org/10.1177/0963721413492763>
- Orth, U., & Robins, R. W. (2014). The development of self-esteem. *Current Directions in Psychological Science*, 23(5), 381–387. <https://doi.org/10.1177/0963721414547414>
- Park, L. E., Crocker, J., & Vohs, K. D. (2006). Contingencies of self-worth and self-validation goals: Implications for close relationships. In K. D. Vohs & E. J. Finkel (Eds.), *Self and relationships: Connecting intrapersonal and interpersonal processes* (p. 84–103). Guilford Press. Retrieved from <https://psycnet.apa.org/record/2006-04109-005>
- Pelham, B. W., Koole, S. L., Hardin, C. D., Hetts, J. J., Seah, E., & DeHart, T. (2005a). Gender moderates the relation between implicit and explicit self-esteem. *Journal of Experimental Social Psychology*, 41(1), 84–89. <https://doi.org/10.1016/j.jesp.2003.10.008>
- Peng, Z., Klomek, A. B., Li, L., Su, X., Sillanmäki, L., Chudal, R., & Sourander, A. (2019). Associations between Chinese adolescents subjected to traditional and cyber bullying and suicidal ideation, self-harm and suicide attempts. *BMC Psychiatry*, 19(1), 324. <https://doi.org/10.1186/s12888-019-2319-9>
- Pinter, B., & Greenwald, A. G. (2005). Clarifying the role of the "other" category in the self-esteem IAT. *Experimental Psychology*, 52(1), 74–79. <https://doi.org/10.1027/1618-3169.52.1.74>
- Pollastri, A. R., Cardemil, E. V., & O'Donnell, E. H. (2010). Self-esteem in pure bullies and bully/victims: A longitudinal analysis. *Journal of Interpersonal Violence*, 25(8), 1489–1502. <https://doi.org/10.1177/0886260509354579>
- Porges, S. W. (1995). Cardiac vagal tone: A physiological index of stress. *Neuroscience & Biobehavioral Reviews*, 19(2), 225–233. [https://doi.org/10.1016/0149-7634\(94\)00066-A](https://doi.org/10.1016/0149-7634(94)00066-A)
- Porges, S. W. (2007). The polyvagal perspective. *Biological Psychology*, 74(2), 116–143. <https://doi.org/10.1016/j.biopsycho.2006.06.009>
- Porges, S. W. (2017) *The pocket guide to the polyvagal theory: The transformative power of feeling safe*. New York, NY: W.W. Norton and Company.
- Potard, C. (2017). Self-Esteem Inventory (Coopersmith). In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences* (pp. 1–3). Springer International Publishing. https://doi.org/10.1007/978-3-319-28099-8_81-1
- Primack, B. A., Shensa, A., Sidani, J. E., Whaitte, E. O., Lin, L. yi, Rosen, D., Colditz, J. B., Radovic, A., & Miller, E. (2017). Social media use and perceived social isolation among young adults in the U.S. *American Journal of Preventive Medicine*, 53(1), 1–8. <https://doi.org/10.1016/j.amepre.2017.01.010>
- Raboteg-Saric, Z., & Sakic, M. (2014). Relations of parenting styles and friendship quality to self-esteem, life satisfaction and happiness in adolescents. *Applied Research in Quality of Life*, 9(3), 749–765. <https://doi.org/10.1007/s11482-013-9268-0>

- Richard, A., Harbeck, N., Wuerstlein, R., & Wilhelm, F. H. (2019). Recover your smile: Effects of a beauty care intervention on depressive symptoms, quality of life, and self-esteem in patients with early breast cancer. *Psycho-Oncology*, *28*(2), 401–407. <https://doi.org/10.1002/pon.4957>
- Rosenberg, M. (1965). Rosenberg self-esteem scale (RSE). Acceptance and commitment therapy. Measures package, *61*(52), 18.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review*, *60*(1), 141. <https://doi.org/10.2307/2096350>
- Rosnau, K., Hashmi, S. S., Northrup, H., Slopis, J., Noblin, S., & Ashfaq, M. (2017). Knowledge and self-esteem of individuals with neurofibromatosis type 1 (NF1). *Journal of Genetic Counseling*, *26*(3), 620–627. <https://doi.org/10.1007/s10897-016-0036-9>
- Scarpaci, R. (2006). Bullying effective strategies for its prevention. *Kappa Delta Pi Record*, *42*(4), 170–174. <https://doi.org/10.1080/00228958.2006.10518023>
- Sharma, M., & Jagdev, T. (2012). Use of music therapy for enhancing self-esteem among academically stressed adolescents. *Pakistan Journal of Psychological Research*, *27*(1), 53–64
- Sharma, M., Shivashankar, N., & Reddy, R. (2010). Cognitive behavior therapy for stuttering: A case series. *Indian Journal of Psychological Medicine*, *32*(1), 49. <https://doi.org/10.4103/0253-7176.70533>
- Simon, J. B., Nail, P. R., Swindle, T., Bihm, E. M., & Joshi, K. (2017). Defensive egotism and self-esteem: A cross-cultural examination of the dynamics of bullying in middle school. *Self and Identity*, *16*(3), 270–297. <https://doi.org/10.1080/15298868.2016.1232660>
- Sorokowski, P., Sorokowska, A., Oleszkiewicz, A., Frackowiak, T., Huk, A., & Pisanski, K. (2015). Selfie posting behaviors are associated with narcissism among men. *Personality and Individual Differences*, *85*, 123–127. <https://doi.org/10.1016/j.paid.2015.05.004>
- Sublette, V. A., & Mullan, B. (2012). Consequences of play: A systematic review of the effects of online gaming. *International Journal of Mental Health and Addiction*, *10*(1), 3–23. <https://doi.org/10.1007/s11469-010-9304-3>
- Swann, W. B., Chang-Schneider, C., & Larsen McClarty, K. (2007). Do people's self-views matter? Self-concept and self-esteem in everyday life. *American Psychologist*, *62*(2), 84–94. <https://doi.org/10.1037/0003-066X.62.2.84>
- Tafarodi, R. W., & Ho, C. (2006). Implicit and explicit self-esteem: What are we measuring? *Canadian Psychology/Psychologie Canadienne*, *47*(3), 195–202. <https://doi.org/10.1037/cp2006009>
- Teo, A. R., Choi, H., Andrea, S. B., Valenstein, M., Newsom, J. T., Dobscha, S. K., & Zivin, K. (2015). Does mode of contact with different types of social relationships predict depression in older adults? Evidence from a nationally representative survey. *Journal of the American Geriatrics Society*, *63*(10), 2014–2022. <https://doi.org/10.1111/jgs.13667>

- Thomas, M., Kaufmann, C., Palmer, B., Depp, C., Martin, A., & Glorioso, D. et al. (2016). Paradoxical trend for improvement in mental health with aging. *The Journal of Clinical Psychiatry*, 77(08), e1019-e1025. <https://doi.org/10.4088/jcp.16m10671>
- Thompson, A. H. (2010). The suicidal process and self-esteem. *Crisis*, 31(6), 311–316. <https://doi.org/10.1027/0227-5910/a000045>
- Thompson, B. L., & Waltz, J. A. (2008). Mindfulness, self-esteem, and unconditional self-acceptance. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 26(2), 119–126. <https://doi.org/10.1007/s10942-007-0059-0>
- Tobin, S. J., Vanman, E. J., Verreynne, M., & Saeri, A. K. (2015). Threats to belonging on Facebook: Lurking and ostracism. *Social Influence*, 10(1), 31–42. <https://doi.org/10.1080/15534510.2014.893924>
- Trzesniewski, K. H., Donnellan, M. B., Moffitt, T. E., Robins, R. W., Poulton, R., & Caspi, A. (2006). Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. *Developmental Psychology*, 42(2), 381–390. <https://doi.org/10.1037/0012-1649.42.2.381>
- Ungar, M. (2010). Families as navigators and negotiators: Facilitating culturally and contextually specific expressions of resilience. *Family Process*, 49(3), 421–435. <https://doi.org/10.1111/j.1545-5300.2010.01331.x>
- Ungar, M. (2013). Resilience, trauma, context, and culture. *Trauma, Violence, & Abuse*, 14(3), 255–266. <https://doi.org/10.1177/1524838013487805>
- Ungar, M., Dumond, C., & McDonald, W. (2005). Risk, resilience and outdoor programmes for at-risk children. *Journal of Social Work*, 5(3), 319–338. <https://doi.org/10.1177/1468017305058938>
- vanDellen, M. R., Campbell, W. K., Hoyle, R. H., & Bradfield, E. K. (2011). Compensating, resisting, and breaking: A meta-analytic examination of reactions to self-esteem threat. *Personality and Social Psychology Review*, 15(1), 51–74. <https://doi.org/10.1177/1088868310372950>
- Vandromme, H., Hermans, D., & Spruyt, A. (2011). Indirectly measured self-esteem predicts gaze avoidance. *Self and Identity*, 10(1), 32–43. <https://doi.org/10.1080/15298860903512149>
- Vermillion, M., & Dodder, R. (2007). An examination of the Rosenberg Self-Esteem Scale using collegiate wheelchair basketball student athletes. *Perceptual and Motor Skills*, 104(2), 416-418. <https://doi.org/10.2466/pms.104.2.416-418>
- Vohs, K. D., Voelz, Z. R., Pettit, J. W., Bardone, A. M., Katz, J., Abramson, L. Y., Heatherton, T. F., & Joiner, T. E., Jr. (2001). Perfectionism, body dissatisfaction, and self-esteem: An interactive model of bulimic symptom development. *Journal of Social and Clinical Psychology*, 20(4), 476–497. <https://doi.org/10.1521/jscp.20.4.476.22397>
- Weiser, E. (2015). #Me: Narcissism and its facets as predictors of selfie-posting frequency. *Personality and Individual Differences*, 86, 477-481. <https://doi.org/10.1016/j.paid.2015.07.007>

- Will, G.-J., Moutoussis, M., Womack, P. M., Bullmore, E. T., Goodyer, I. M., Fonagy, P., Jones, P. B., Rutledge, R. B., & Dolan, R. J. (2020). Neurocomputational mechanisms underpinning aberrant social learning in young adults with low self-esteem. *Translational Psychiatry*, *10*(1), 96. <https://doi.org/10.1038/s41398-020-0702-4>
- Will, G., Rutledge, R., Moutoussis, M., & Dolan, R. (2017). Neural and computational processes underlying dynamic changes in self-esteem. *eLife*, *6*. <https://doi.org/10.7554/eLife.28098.001>
- Wongpakaran, T., & Wongpakaran, N. (2012). A comparison of reliability and construct validity between the original and revised versions of the Rosenberg Self-Esteem Scale. *Psychiatry Investigation*, *9*(1), 54-58. <https://doi.org/10.4306/pi.2012.9.1.54>
- Wood, J., Elaine Perunovic, W., & Lee, J. (2009). Positive self-statements: Power for some, peril for others. *Psychological Science*, *20*(7), 860-866. <https://doi.org/10.1111/j.1467-9280.2009.02370.x>
- Zeigler-Hill, V., & Terry, C. (2007). Perfectionism and explicit self-esteem: The moderating role of implicit self-esteem. *Self and Identity*, *6*(2-3), 137-153. <https://doi.org/10.1080/15298860601118850>

Appendix A: Rosenberg Self-Esteem Scale

Rosenburg (1965)

Please indicate how strongly you agree or disagree with each statement using the following scale:

1=strongly disagree 2=disagree 3=agree 4=strongly agree

1. On the whole, I am satisfied with myself.
2. At times I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

Scoring:

Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

Appendix B: Feelings of Inadequacy Scale

Janis & Field (1959)

1. How often do you feel inferior to most of the people you know?
2. Do you ever think that you are a worthless individual?
3. How confident do you feel that someday the people you know will look up to you and respect you?
4. Do you ever feel so discouraged with yourself that you wonder whether you are a worthwhile person?
5. How often do you dislike yourself?
6. In general, how confident do you feel about your abilities?
7. How often do you have the feeling that there is nothing you can do well?
8. How much do you worry about how well you get along with other people?
9. How often do you worry about criticisms that might be made of your work by your teacher or employer?
10. Do you ever feel afraid or anxious when you are going into a room by yourself where other people have already gathered and are talking?
11. How often do you feel self-conscious?
12. How much do you worry about whether other people will regard you as a success or failure in your job or in school?
13. When in a group of people, do you have trouble thinking of the right things to talk about?
14. When you make an embarrassing mistake or have done something that makes you look foolish, how long does it take you to get over it?
15. Do you often feel uncomfortable meeting new people?
16. How often do you worry about whether other people like to be with you?
17. How often are you troubled with shyness?
18. When you think that some of the people you meet might have an unfavorable opinion of you, how concerned or worried do you feel about it?
19. How often do you feel worried or bothered about what other people think about you?
20. When you have to read an essay and understand it for a class assignment, how worried or concerned do you feel about it?
21. When you have to write an argument to convince your teacher who may disagree with your ideas, how concerned or worried do you feel about it?
22. How often do you have trouble expressing your ideas when you try to put them into writing as an assignment?
23. How often do you have trouble understanding things you read?
24. How often do you imagine that you have less scholastic ability than your classmates?
25. In turning in a major assignment such as a term paper, how often do you feel you did an excellent job on it?

26. Compared with classmates, how often do you feel you must study more than they do to get the same grades?
27. Have you ever felt ashamed of your physique or figure?
28. Do you often feel that most of your friends or peers are more physically attractive than yourself?
29. Do you often wish or fantasize that you were better looking?
30. Have you ever been concerned or worried about your ability to attract members of the opposite sex?
31. How confident are you that others see you as being physically appealing?
32. Have you ever thought of yourself as physically uncoordinated?
33. Have you ever felt inferior to most other people in athletic ability?
34. When involved in sports requiring physical coordination, are you often concerned that you will not do well?
35. Have you ever thought that you lacked the ability to be a good dancer or do well at recreational activities involving coordination?
36. When trying to do well at a sport and you know other people are watching, how rattled or flustered do you get?

Appendix C: Contingencies of Self-Worth Scale

Crocker et al. (2001)

1=Strongly Disagree, 2=Disagree, 3=Disagree Somewhat, 4= Neutral, 5=Agree Somewhat, 6=Agree, and 7=Strongly Agree

1. When I think I look attractive, I feel good about myself.
2. My self-worth is based on God's love.
3. I feel worthwhile when I perform better than others on a task or skill.
4. My self-esteem is unrelated to how I feel about the way my body looks.
5. Doing something I know is wrong makes me lose my self-respect.
6. I don't care if other people have a negative opinion about me.
7. Knowing that my family members love me makes me feel good about myself.
8. I feel worthwhile when I have God's love.
9. I can't respect myself if others don't respect me.
10. My self-worth is not influenced by the quality of my relationships with my family members.
11. Whenever I follow my moral principles, my sense of self-respect gets a boost.
12. Knowing that I am better than others on a task raises my self-esteem.
13. My opinion about myself isn't tied to how well I do in school.
14. I couldn't respect myself if I didn't live up to a moral code.
15. I don't care what other people think of me.
16. When my family members are proud of me, my sense of self-worth increases.
17. My self-esteem is influenced by how attractive I think my face or facial features are.
18. My self-esteem would suffer if I didn't have God's love.
19. Doing well in school gives me a sense of self-respect.
20. Doing better than others gives me a sense of self-respect.
21. My sense of self-worth suffers whenever I think I don't look good.
22. I feel better about myself when I know I'm doing well academically.
23. What others think of me has no effect on what I think about myself.
24. When I don't feel loved by my family, my self-esteem goes down.
25. My self-worth is affected by how well I do when I am competing with others.
26. My self-esteem goes up when I feel that God loves me.
27. My self-esteem is influenced by my academic performance.
28. My self-esteem would suffer if I did something unethical.
29. It is important to my self-respect that I have a family that cares about me.
30. My self-esteem does not depend on whether or not I feel attractive.
31. When I think that I'm disobeying God, I feel bad about myself.
32. My self-worth is influenced by how well I do on competitive tasks.
33. I feel bad about myself whenever my academic performance is lacking.

34. My self-esteem depends on whether or not I follow my moral/ethical principles.

35. My self-esteem depends on the opinions others hold of me.

Family Support: (alpha 0.84); Competition: (alpha 0.87); Appearance: (alpha 0.83); God's Love: (alpha 0.96), Academic Competence: (alpha 0.82); Virtue: (alpha 0.83); Approval from Others: (alpha 0.82)

Items reverse-scored: 4, 6, 10, 13, 15, 23, and 30

Family Support: items 7, 10, 16, 24, and 29.

Competition: items 3, 12, 20, 25, and 32.

Appearance: items 1, 4, 17, 21, and 30.

God's Love: items 2, 8, 18, 26, and 31.

Academic Competence: items 13, 19, 22, 27, and 33.

Virtue: items 5, 11, 14, 28, and 34.

Approval from Others: items: 6, 9, 15, 23, and 35.

Appendix D: Collective Self-Esteem Scale

Luhtanen & Crocker (1992)

CSE

INSTRUCTIONS: We are all members of different social groups or social categories. Some of such social groups or categories pertain to gender, race, religion, nationality, ethnicity, and socioeconomic class. We would like you to consider your memberships in those particular groups or categories, and respond to the following statements on the basis of how you feel about those groups and your memberships in them. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale from 1 to 7:

		Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
1.	I am a worthy member of the social groups I belong to.	1	2	3	4	5	6	7
2.	I often regret that I belong to some of the social groups I do.	1	2	3	4	5	6	7
3.	Overall, my social groups are considered good by others.	1	2	3	4	5	6	7
4.	Overall, my group memberships have very little to do with how I feel about myself.	1	2	3	4	5	6	7
5.	I feel I don't have much to offer to the social groups I belong to.	1	2	3	4	5	6	7
6.	In general, I'm glad to be a member of the social groups I belong to.	1	2	3	4	5	6	7
7.	Most people consider my social groups, on the average, to be more ineffective than other social groups.	1	2	3	4	5	6	7
8.	The social groups I belong to are an important reflection of who I am.	1	2	3	4	5	6	7
9.	I am a cooperative participant in the social groups I belong to.	1	2	3	4	5	6	7
10.	Overall, I often feel that the social groups of which I am a member are not worthwhile.	1	2	3	4	5	6	7
11.	In general, others respect the social groups that I am a member of.	1	2	3	4	5	6	7
12.	The social groups I belong to are unimportant to my sense of what kind of a person I am.	1	2	3	4	5	6	7
13.	I often feel I'm a useless member of my social groups.	1	2	3	4	5	6	7
14.	I feel good about the social groups I belong to.	1	2	3	4	5	6	7
15.	In general, others think that the social groups I am a member of are unworthy.	1	2	3	4	5	6	7
16.	In general, belonging to social groups is an important part of my self image.	1	2	3	4	5	6	7



For more information about R2 or to discover how you can bring the program to your organization, business or educational setting, please contact us.

Paul McGuinness

Operations Manager

✉ rrc@dal.ca

☎ (902) 494-8482

Michael Ungar, PhD

Director

✉ michael.ungar@dal.ca

☎ (902) 229-0434



RRC - Evaluation
and Training Institute