



**THE INVESTIGATION OF THE RELATIONSHIP
BETWEEN SELF-FOCUSED ATTENTION AND
SAFETY BEHAVIORS IN SOCIAL ANXIETY USING
SCENARIOS ABOUT SOCIAL SITUATION**

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Graduate School
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ABSTRACT

THE INVESTIGATION OF THE RELATIONSHIP BETWEEN SELF-FOCUSED ATTENTION AND SAFETY BEHAVIORS IN SOCIAL ANXIETY USING SCENARIOS ABOUT SOCIAL SITUATIONS

Kasabođlu, Tuba

Master's Program in Experimental Psychology

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This thesis aimed to investigate self-focused attention and safety behaviors of individuals with high social anxiety and low social anxiety using different social situation scenarios. Socially anxious individuals fear social situations in which they may be judged negatively by others. These social situations are subdivided into three categories according to DSM V; performing in front of others (e.g. making a presentation), being observed (e.g., eating or drinking), and social interactions (e.g., meeting with friends). Clark and Wells (1995) advanced a cognitive model that emphasizes SFA and safety behaviors as developmental and maintaining components of social anxiety disorder. Thus, the present study investigated the relationship between SFA and safety behaviors in social anxiety using scenarios about three different social situations namely interaction, performance and being observed. After reading the scenarios, participants rated their anxiety level and their SFA. Then, they were asked to choose a behavior relating to the situation, namely adaptive, avoidance,

and safety behavior. The findings of this study revealed that high socially anxious individuals were more anxious and reported more SFA in general in all social situation scenarios than low socially anxious individuals. In addition, when compared to low socially anxious individuals, high socially anxious individuals tended to favor safety and avoidance behavior over adaptive conduct, while reporting less satisfaction relating to their choice. The most anxiety inducing situation for all participants was the presentation situation. In conclusion, the present study highlights once again the importance of SFA and safety behaviors in social anxiety.

Keywords: social anxiety, safety behavior, self-focused attention, scenario.



ÖZET

SOSYAL KAYGIDA KENDİNE YÖNELİK DİKKAT İLE GÜVENLİK DAVRANIŞLARI ARASINDAKİ İLİŞKİNİN SOSYAL DURUMLAR İLE İLGİLİ SENARYOLAR KULLANILARAK İNCELENMESİ

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Bu çalışmada, sosyal kaygısı yüksek ve sosyal kaygısı düşük olan bireylerin kendine odaklı dikkat (SFA) ve güvenlik davranışlarını farklı sosyal durum senaryoları kullanarak araştırmayı amaçlamıştır. Sosyal kaygılı bireyler, başkaları tarafından olumsuz değerlendirilebilecekleri sosyal durumlardan korkarlar. Bu sosyal durumlar DSM V'e göre üç kategoriye ayrılır; başkalarının önünde performans sergilemek (örn. sunum yapmak), gözlemlenmek (örn. yemek yemek veya içmek) ve sosyal etkileşimler (örn. arkadaşlarla buluşmak). Clark ve Wells (1995), sosyal kaygı bozukluğunun gelişimsel ve koruyucu bileşenleri olarak SFA ve güvenlik davranışlarını vurgulayan bir bilişsel model geliştirmiştir. Bu nedenle, bu çalışma, etkileşim, performans ve gözlenme olmak üzere üç farklı sosyal duruma ilişkin senaryolar kullanarak sosyal kaygıda SFA ile güvenlik davranışları arasındaki ilişkiyi araştırmıştır. Senaryoları okuduktan sonra, katılımcılar kaygı düzeylerini ve SFA'larını derecelendirdiler. Daha sonra duruma göre uyarlanabilir, kaçınma ve güvenlik

davranışı olarak adlandırılan bir davranışı seçmeleri istenmiştir. Bu çalışmanın bulguları, sosyal kaygısı yüksek bireylerin düşük sosyal kaygılı bireylere göre daha kaygılı olduklarını ve genel olarak tüm sosyal durum senaryolarında daha fazla SFA bildirdiklerini ortaya koymuştur. Ek olarak, düşük sosyal kaygılı bireylerle karşılaştırıldığında, yüksek sosyal kaygılı bireyler, güvenlik ve kaçınma davranışlarını uyumsal davranışa tercih etme eğilimindeyken, seçimlerinden daha az memnuniyet rapor ettiler. Tüm katılımcılar için en çok kaygı uyandıran durum sunum durumu olmuştur. Sonuç olarak, bu çalışma sosyal kaygıda SFA ve güvenlik davranışlarının önemini bir kez daha vurgulamaktadır.

Anahtar Kelimeler: sosyal kaygı, güvenlik davranış, kendine yönelik dikkat, sosyal durumlar ile ilgili senaryolar.

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CHAPTER 1: INTRODUCTION

1.1. Anxiety

Anxiety is one of the most basic emotions people experiences. The anxiety-based reactions that emerge when the danger is perceived appear cognitively, emotionally, and physically. The perception that there is a real danger or illusion of danger is enough for the person to experience anxiety (Achenbach and Edelbrock, 1983). Anxiety is perceived as an expectancy of a future threat, whereas fear can be considered as reacting emotionally to a real or imagined impending threat. Fear can be related to surges of autonomic arousal, thoughts of urgent jeopardy, and avoidant behaviors, whereas anxiety is related with muscle tension and attention in preparation for upcoming hazard and prudent or avoidant behaviors (Hamm, 2019). Pervasive avoidance practices may lessen the level of dread or anxiety in some people (American Psychiatric Association, 2013). In this context, anxiety likens to fear and describes it as a constant feeling that something bad will happen and being in a state of alarm and anxious mood. Although anxiety is generally described as a negative emotion, it has also been confirmed by studies that it increases performance and motivates the person when it is experienced to a certain level (Akbaş, 2016). Looking at its positive features, it is understood that anxiety is a triggering mechanism that can protect people from danger and is also one of the protective mechanisms that provide motivation to people in difficult and demanding situations. Anxiety is expressed as the understanding that certain values of a person facing a threat are not clear and cannot overcome. Thus, anxiety is a result of the necessity of living, overcoming life, producing, and creating new things (Oerbeck et al., 2014). In addition to these, anxiety is expressed as a result of the desire to be accepted in areas where the level of competition is higher. The cognitive aspect of anxiety refers to the person thinking negatively about themselves (Akçakın, 1985). Emotional aspect expresses feelings of stress and restlessness. Behavioral aspect refers to reactions in the body such as palmsweating, increased heart rate, while the behavioral aspect expresses incompetence, not speaking at all, talking less, and staying away. Some people take severe hits from anxiety which puts them in a desperate situation, however, sometimes it gives individuals the strength to do what needs to be done (BarHaim et

al., 2010). One of the major drawbacks of anxiety disorder is that it puts people in a situation in which they worry about things excessively and imaginary expectation that the person cannot prevent the events he encounters in daily life. In contrast to anxiety, excessive/irrational worries and unreal thoughts are frequently seen regarding daily issues such as economic situation, possible work obligations, health problems, events that children may experience, housework, repairs, not being able to make appointments in generalized anxiety (Silvia et al., 2006). Anxiety disorder was defined as a state of pervasive anxiety accompanied by various somatic symptoms (pain of psychological origin), causing serious deterioration in social or occupational functioning or significant stress in the patient (Crocq, 2017). Anxiety disorders, such as panic disorder, phobias, generalized anxiety disorder, and separation anxiety disorder, impact up to 33.7 percent of the population, according to major community-based surveys (Bandelow and Michaelis, 2015). Like many mental disorders, the cause of anxiety disorder is unknown. However, biological studies suggest that neural transmission may be impaired in areas of the brain associated with anxiety (cortical structures, limbic system, basal ganglia, and cerebellum) (Martin et al., 2010).

Depending on the intensity of anxiety experienced by individuals, the condition may revolve into anxiety disorders. In general, anxiety disorders are among the most common psychiatric disorders. Excessive dread and worry, as well as accompanying behavioral abnormalities, are all symptoms of anxiety disorders. According to DSM-V, anxiety disorders are as follows; separation anxiety disorder, selective mutism, specific phobia, social anxiety disorder (social phobia), panic disorder, agoraphobia, generalized anxiety disorder, substance-induced anxiety disorder, anxiety disorder due to another health circumstance, specified another anxiety disorder is an unspecified anxiety disorder. One of the subcategories of anxiety disorders is social anxiety disorder. It will be referred to social anxiety disorder or social phobia when social anxiety reaches a level of severity that hampers functioning (Morrison and Heimberg, 2013).

Following paragraphs will elaborate on social anxiety, epidemiology, etiology, causes, effects, and comorbidity, and will concentrate on research into Clark and Wells' (1995) cognitive model of social anxiety.

1.2. Social Anxiety

Social relationships, which are an important part of a person's life, affect a person's happiness and success. However, social anxiety is a common human condition characterized by a strong fear of being judged by others in social situations (Marrison and Heimberg, 2013). According to DSM-V, social anxiety disorder (SAD) is described as "persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or possible scrutiny by others. The person fears that he or she will behave in a manner that is embarrassing and humiliating" (American Psychiatric Association, 2013).

Social anxiety can also be referred to as "evaluation anxiety" (Allen vd., 2008). People with SAD often believe that everyone expects them to perform at an extremely high level in social situations. This belief is often accompanied by a concern that they lack the competence to meet others' expectations. This forces socially anxious people to constantly compare their performance to these high standards (Hofmann, 2007). People may experience social anxiety in three types of social situations: performing in front of others (e.g., giving a presentation), being observed (e.g., eating or drinking), and social interactions (e.g., meeting with friends) (APA, 2013; Koeroglu, 2014).

Table 1. DSM V Diagnostic Criteria (Source: APA, 2013)

Diagnostic Criteria	300.23 (F40.10)
A. Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g., having a conversation, meeting unfamiliar people), being observed (e.g., eating or drinking), and performing in front of others (e.g., giving a speech).	

Note: In children, the anxiety must occur in peer settings and not just during interactions with adults.

Table 1. (continued). DSM V Diagnostic Criteria (Source: APA, 2013)

-
- B. The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e., will be humiliating or embarrassing: will lead to rejection or offend others).
- C. The social situations almost always provoke fear or anxiety.
- Note: In children, the fear or anxiety may be expressed by crying, tantrums, freezing, clinging, shrinking, or failing to speak in social situations.
- D. The social situations are avoided or endured with intense fear or anxiety.
- E. The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.
- F. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.
- G. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- H. The fear, anxiety, or avoidance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.
- I. The fear, anxiety, or avoidance is not better explained by the symptoms of another mental disorder, such as panic disorder, body dysmorphic disorder, or autism spectrum disorder.
- J. If another medical condition (e.g., Parkinson's disease, obesity, disfigurement from burns or injury) is present, the fear, anxiety, or avoidance is clearly unrelated or is excessive.
-

Specify if:

Performance only: If the fear is restricted to speaking or performing in public.

Anxiety is characterized by disturbances in mood, thinking, behavior, and physiological activity, as well as impairments in sleep, concentration, social and/or occupational functioning. It is also associated with restlessness, tension, mild fatigue, difficulty concentrating or forgetting, impatience, muscle tension, and irritability (Adwas, Jbireal, and Azab, 2019). Social anxiety can manifest in emotional symptoms: excessive fear of situations in which one might be judged, depression, fear, sweating, restlessness, palpitations, fear of being judged by others, avoidance of

talking to others out of fear, fear of interactions with others, and physical symptoms such as blushing, rapid heartbeat, trembling, nausea, heavy breathing, dizziness, muscle tension (Singh, A., 2019).

SAD can be caused by a variety of factors including genetics, brain anatomy (amygdala), and environmental factors (Sing, A., 2019). Genetic factors appear to play a role. However, genes can affect the likelihood of having an anxiety or depression disorder, not just social anxiety. Estimates of heritability range from 25 to 50 percent, implying that environmental variables have a significant impact on the development of the disorder in many individuals (NCCMH, 2013). Neuroimaging studies have shown that certain brain regions (the amygdalae, insulae, and dorsal anterior cingulate-all structures involved in the control of anxiety) are activated differently than in adaptive volunteers (NCCMH, 2013) when frightening stimuli are given.

Few past experiences may have been positive or negative, but some remain in memory and influence activities of daily living. Such feelings may be triggered by an unpleasant event, a whim, or a new work task, such as doing something for the first time, and an appearance or something that attracts attention will alert this in a person suffering from SAD (Singh, 2019). People with SAD often recall stressful social situations from their childhood (e.g., bullying, family abuse, public embarrassment, or a lapse in public speaking) (NCCMH, 2013).

Another important developmental factor is self-perception. People who suffer from SAD tend to think negatively about their performance. This supports their belief that they are unable to project the competent image of themselves that they desire onto others (Hofmann, 2007). People with SAD tend to focus their attention on socially risky stimuli and turn away from more favorable social cues (Hofmann S. G., 2007). Self-focused attention and a poor performance cycle could be exacerbated by these attentional biases. In addition, individuals with SAD tend to neglect the value of their successes when analyzing their actions, even when they have performed satisfactorily (Hofmann S. G., 2007). This fundamental drive for social support, as well as the associated fear of being negatively judged by others, is a focus of SAD. Due to its evolutionary significance, the possibility of losing social support as a result of being

negatively evaluated by others causes great distress to those affected (Hofmann, Gutner and Fang, 2012).

1.2.1. Epidemiology of Social Anxiety

SAD occurs most frequently in adolescence (average age 10 to 13 years), with puberty being a high-risk period (Boer, 2000). In the study conducted by Stein et al., (2017), although the risk period for developing SAD was also found to be between mid-to-late adolescence and early 40s, the age of onset was adolescence (Stein et al., 2017). The onset may be sudden after a stressful or humiliating event, or it may be insidious. The condition is often lifelong and unrelenting if not treated, as it is unlikely to resolve on its own. There may be a familial predisposition to SAD, as data from family studies suggest that a SAD predisposition may be inherited, with the incidence of SAD increasing threefold in relatives of patients (Boer, 2000).

In a study, Stein et al, 2017, investigated the cross-national epidemiology of SAD. According to the results, SAD is associated with sociodemographic factors such as younger age, female gender, unmarried status, lower education, and lower family income in low-, middle-, and high-income countries. The results also showed that recurrence of SAD is strongly associated with lack of education (Stein et al., 2017). According to another study, women are more likely than men to suffer from social anxiety and be diagnosed with SAD. In addition, men were found to be more likely to seek treatment than women (Asher et al., 2017). The Epidemiologic Catchment Area Study examined approximately 13,000 young people ages 18-29 and found that females were 1.5 times more likely than males to meet diagnostic criteria for SAD. The lifetime prevalence rates reported in this study were 3.1 percent for women and 2.0 percent for men. According to National Comorbidity Survey data, women had a higher lifetime prevalence rate of 15.5 percent versus 11.1 percent. (Asher, Asnaani and Aderka, 2017).

According to the latest research by Stein et al., (2017), the estimated lifetime prevalence of SAD worldwide is 1.3, 2.4, and 4.0 percent, respectively. The prevalence of SAD is lowest in low-and middle-income countries and in the African and Eastern Mediterranean regions and highest in high-income countries and in the

Americas and Western Pacific. The disease breaks out prematurely throughout the world, with the highest persistence rates in middle-income countries, Africa, and the Eastern Mediterranean. Although areas of severe role impairment differ by income level and geographic region, there are no significant differences in the number of respondents with severe role impairment between income levels and geographic regions. (Stein et al., 2017). Comorbidity is another important issue related to SAD. According to studies, between 69 and 81 percent of people with SAD have lifelong comorbidities with other mental disorders (Fehm and Wittchen, 2004).

According to the American Psychiatric Association (2013), SAD is frequently associated with other anxiety disorders, major depressive disorder, and substance use disorders, with the exception of specific phobia and separation anxiety disorder. The onset of SAD precedes the development of the other disorders in most cases. During the course of SAD, chronic social isolation can lead to major depressive disorder. Comorbidity of depression is also high in the elderly. Substances can be used to self-medicate social anxiety, but symptoms of intoxication or withdrawal, such as tremors, can also be a resource of (additional) social anxiety (American Psychiatric Association, 2013). Bipolar disorder and body dysmorphic disorder are often comorbid with SAD. For example, a person may have body dysmorphic disorder because they are preoccupied with a minor irregularity in their nose, and SAD, because they have a great fear of appearing unintelligent (American Psychiatric Association, 2013). However, evidence suggests that comorbidity is a true indication of mental illness prevalence and not an artifact of the DSM classification system. Research has shown that people with comorbidity SAD have significantly worse disability and lower quality of life than people with SAD alone. Comorbidity is also considered by psychologists to be an useful instrument in the investigation of mental illness' causes. According to one theory, preexisting conditions may accelerate the development of SAD or SAD increase the risk for a variety of other disorders. Therefore, any search for the antecedents of SAD should include investigations of comorbidity in the hope of finding material that will contribute to the understanding of SAD or to treatment regimens (Brook and Schmidt, 2008).

1.2.2. Theoretical Foundations of Social Anxiety

To explain the concept of social anxiety, the concepts self-presentation theory, attachment theory, and cognitive-behavioral theory (Achenbach and Edelbrock, 1983) were mainly discussed. In addition, social anxiety has also been assessed biologically. According to self-presentation theory, social anxiety arises from the deterioration of the person's self-concept. In the deterioration of self-concept, the person finds that he or she feels unreal worthless. In the above model, the person constantly evaluates himself and feels a sense of embarrassment (Goekkaya, 2016).

According to attachment theory, disruptions in the internalization of experiences in the attachment phase with the caregiver cause the individual's security to be shaken and the tendency to anxiety to increase. According to attachment theory, the absence of a secure attachment object in the early stage causes the child to feel anxious during most of his or her later attachment experiences, to exhibit avoidance behavior as a basic behavior, and to engage in coping behavior as a result. Encouraging, supportive, cooperative parents try to instill in their children the belief that they are valuable and that others can help them (Oerbeck vd., 2014). The most commonly observed situation under this theory is that when people compare the self-schemas they view as "negative" to the society they define as "positive," they hold on to those value judgments. In other words, people who suffer from obsessive-compulsive attachments tend to view themselves as "worthless" individuals as well as to think positively and criticize others in their society (Allen, Rapee and Sandberg, 2008).

On the other hand, the cognitive and behavioral model used to explain social anxiety is considered the most solid scientific foundation. This scientific expertise is important because it supports any hypothesis of social anxiety developed through the cognitive-behavioral model with empirical data on people suffering from social anxiety (Eysenck, 1992). From recent studies conducted within the framework of this model, it appears that people with social anxiety place themselves in environments where they have thoughts that they will be rejected or criticized, with more than one negative opinion (Gueleç, 2003).

Examples of these thoughts include the following;

- The thought of showing a physical sign or embarrassing behavior in environments that lay the foundation for social anxiety,
- The thought that somatic symptoms that may occur (e.g., change in body temperature, sweating, or being stuck when speaking) will be detected by others in the environment, - The thought that those around will make negative evaluations about this sign or behavior pattern,
- This bad criticism will not only be expressed about the sign that occurred but will also be generalized to the person's personality and the person will no longer be desirable in that environment.

Ultimately, all of the above thoughts can be listed as negative thoughts related to social anxiety, such as the thoughts of self-worthlessness and evaluation of one's personality (Silvia et al., 2006). In summary, after a while, people with social anxiety focus on their own negative thoughts without thinking about how other people would react in the same situations in their social environment. People with SAD shift their focus from external stimuli to internal stimuli during anxiety-provoking events (Hofmann S. G., 2007). For this reason, when an individual interprets an event, it prevents them from perceiving the positive changes themselves. In other words, the individual interprets his internal sensations after a while as a means for his negative perception. As a result of these processes, a cycle is created that leads to increased anxiety. People with high levels of social anxiety have very negative thoughts about themselves and their actions without checking the reality of these thoughts (Adolphs vd., 1996). As a result, the negative thoughts mentioned above lead people with a SAD to misinterpret their social situations and feel more anxiety.

Among other theories, the research on the biological approach, genetic transition has a significant impact on the development of SAD. It may be that parents who have anxiety disorder inherit it to their children, and it is possible that their children develop anxiety problems or social anxiety (Gueltekin and Dereboy, 2011).

Although other studies were mentioned above, the present study will focus on the cognitive behavioral perspective, specifically on Clark and Wells' cognitive model, which will be explained in detail in the next chapter.

1.3. Clark and Wells Model

Clark and Wells (1995) presented a theoretical cognitive model of social anxiety to explain why individuals suffering from social anxiety do not derive benefits from the naturalistic exposure that daily interaction with others provides (Hodson et al., 2008). According to Clark and Wells, individuals with social anxiety strongly believe that they need to make a positive impression on others, but often believe that they come across poorly. (Leigh and Clark, 2018). According to the cognitive model (Vassilopoulos et al., 2017), anxiety in people with SAD is maintained through self-focused attention (SFA), negative observer perspective images of self, and safety behaviors (SB). Clark and Wells' cognitive model of social anxiety includes many cognitive mechanisms that maintain social anxiety in individuals suffering from SAD. When a person suffering from social anxiety engages in a social environment, negative expectations such as destructive attitudes or expectations about oneself (e.g., "I am clumsy") are activated, leading them to evaluate the condition as a threat. This causes fear arousal, which is sustained by four processes:

1. focusing on self and biased processing of self as a social object
2. engaging in safety behaviors
3. fear-related performance deficits in social situations
4. biased processing of social situations after the event.

People with anxious thoughts are negatively biased and overly focused on themselves, but they are often biased toward external cues as well.

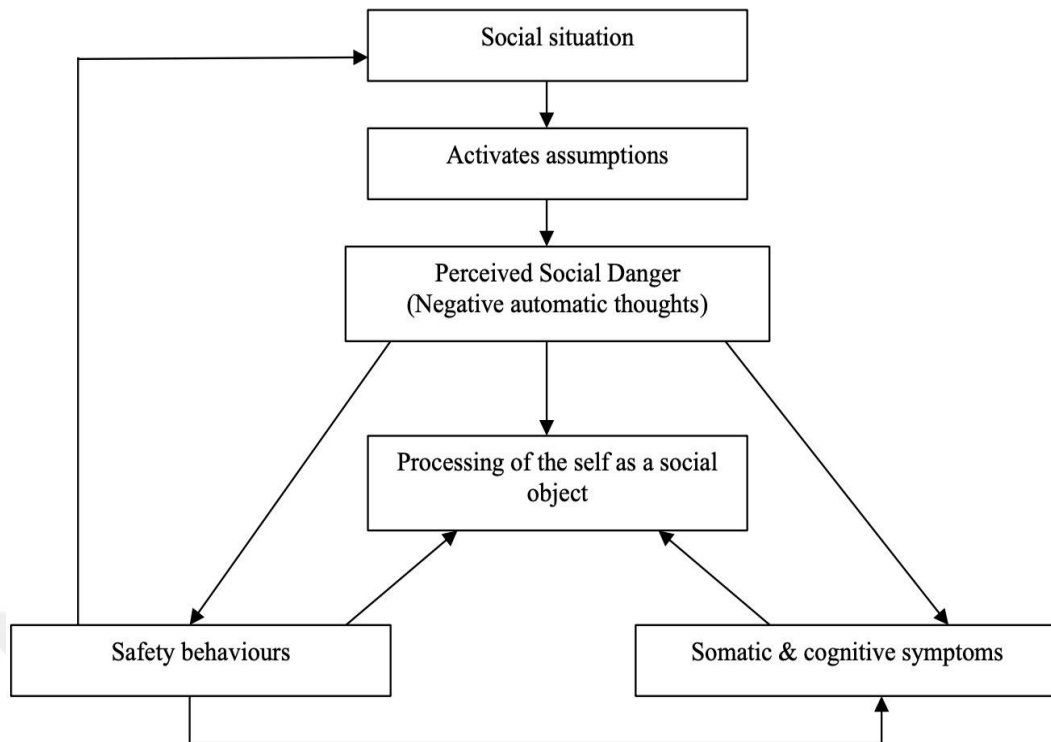


Figure 1. Clark and Wells' (1995) cognitive model of social anxiety (Source: Hudson et al., 2008)

The first is an increase in SFA related to decreased observation of others and the environment. People may also draw overly negative conclusions about how they appear to others based on false internal information (their own emotions and self-images). They may engage in a variety of SBs (including overt avoidance) that are intended to prevent anticipated harm but have the unintended consequence of perpetuating negative attitudes, reinforcing feared symptoms, and altering a person's appearance in ways that are less likely to elicit friendly responses.

Figure 1 illustrates the model proposed by Clark and Wells (1995), which offers five major maintenance processes at SAD. When individuals enter a feared social situation, some negative assumptions are triggered, which in turn lead to the unhelpful perception that the situation is dangerous. When the social situation is perceived as a social danger, the person begins to focus attention on internal processes and self-monitor. This SFA promotes physiological and cognitive anxiety symptoms such as flushing and activation of other intrusive thoughts. Individuals with SAD then combine this physical and cognitive data for the creation of a negative mental image of themselves (how they imagine the audience will see them), causing them to miss

potentially favorable social cues from others (Penney and Abbott, 2014). In addition, distorted self-referent signal perception has been associated with negative external representations of self-esteem, leading participants to feel that others perceive and consider them in the same light as the illustration. SBs are maladaptive coping practices that socially anxious individuals use to reduce the risk of being judged poorly in a stressful environment. These behaviors (e.g., leaning on the table when giving a speech, speaking softly, or hiding one's face) are meant to avert disasters (e.g., fainting, stuttering, or blushing), but they also keep social anxiety from being validated (Ranta et al., 2014).

In summary, the individual engages in pre-event and post-event processing that is adversely affected. In terms of pre-event processing, one study showed that the high social anxiety (HSA) group scored significantly higher on the Clark and Wells (1995) cognitive model compared to the low social anxiety group, suggesting that socially anxious people experience anxiety and hold negative expectations before engaging in a social encounter. Post-event process means that after the feared situation has ended, individuals still think about and re-evaluate the situation. The person continues to process the event after it has ended. SBs are described in this concept as anything that a person does or to keep their social anxiety at bay, they avoid doing certain things. Apparent avoidance, such as avoiding social encounters or refusing to communicate in a particular situation, may be used by someone who is afraid of other people recognizing how uncomfortable they are in social situations. People may utilize more subtle types of avoidance, such as avoiding eye contact or planning and practicing what to say, to prevent their anxiety of seeming worried from spreading to others (Hodson et al., 2008). In the case of a presentation, to give an example.

A socially anxious person who goes into a social situation and gives a presentation to an audience activates negative assumptions about the situation, such as thoughts like "I will fail," "people will think I am not good enough," "people will think I am not intelligent," "I should give a perfect presentation," "I should not make mistakes." Because of these negative expectations and assumptions, the situation becomes a social danger for the person, and when the person faces social danger, some physical symptoms (increased heart rate, blushing) are activated. The perceived social danger causes attention to shift to the person's internal presentation and focus on his or her

thoughts and physical appearance, which is known as SFA. During presentations, instead of focusing on the audience, the person focuses on their thoughts and the physical experience of how they appear to others, which elicits SB. As SB, in this situation, the person might not make eye contact with others and just read from the slides.

Another example: a socially anxious person has been invited to a party that involves social interaction. When a socially anxious person enters a social setting, negative assumptions about the situation are activated, such as thoughts like "people will not like me," "people will not invite me again," "no one will want to talk to me," and "what if I embarrass myself?" Because of these negative expectations and assumptions, the situation becomes social danger for the person. When the person faces social danger, some symptoms such as physical symptoms (increased heart rate, blushing) are activated. During social danger, attention shifts to the person's internal representation and focuses on their thoughts and physical appearance, which is known as "SFA". During the party, instead of focusing on the interaction with others, the person focuses on their thoughts and the physical experience of how they appear to others. Which appears SB when the others notice them blushing or sweating, or if they think what the person said is nonsense or not. As SB in this situation, it could be that the person creates a circle for themselves and avoids interacting with others or only talks to the people they know. In this cognitive model of Clark and Wells, SFA and SB play a significant role in the improvement and keeping of SAD. Therefore, the concept of self-focused attention and SB will be explained in detail in the next chapters.

1.4. Self-Focused Attention

People who are socially anxious tend to focus their attention on themselves rather than on others or the environment. It has been suggested that self-focused attention (SFA) plays a role in the development and maintenance of SAD. Individuals with social anxiety have been shown to have a trait-like excess of SFA when confronted with social danger (e.g., Clark and Wells, 1995; Rapee and Heimberg, 1997). According to Ingram (1990), SFA is awareness of self-related and internally generated information, such as data about physical states, thoughts, memories,

personal ideas, attitudes, emotions, and moods. Spurr and Stopa (2002) also describe SFA as "awareness of self-referential, internally generated information." Information about one's body state, such as knowledge about one's thoughts and emotions, as well as personal beliefs and opinions, can be associated with this type of awareness. Self-related knowledge may include retrospections of past experiences, attitudes, or experiences that affect a person's current self-concept (Spurr and Stopa, 2002). SFA is the tendency to focus attention on attentive observation of oneself rather than external influences (Jakymin and Harris, 2011). The study of self-focus was proposed by Duval and Wicklund (1972) as part of organizations to understand self-regulation and emotions. According to their model, SFA refers to a self-judgmental process in which a person's current status in an area relevant to him or herself is compared to his or her standard for that area (Mor and Winquist, 2002). SFA is a crucial aspect in the maintenance of anxiety because it prevents socially anxious individuals from recognizing social feedback that would contradict their negative thoughts (Spurr and Stopa, 2002).

Focusing attention on one's ideas, behavior, and physiological arousal symptoms, according to cognitive models of social anxiety, interacts with fear of unfavorable assessment to maintain social anxiety (Jakymin and Harris, 2011). Individuals that are socially anxious are likely to focus their attention on themselves rather than on outward socially threatening cues. It's been suggested that SFA has a part in the evolvment and conservation of SAD (Boehme et al., 2015). SFA is not only associated with social anxiety; but also plays a role in a variety of emotional disorders (Spurr and Stopa, 2002). Clark and Wells (1995) propose that a key component of SAD is unusually heightened SFA during socially stressful situations (SAD). As a result, it has been suggested that excessive SFA can lower self-esteem and raise social anxiety (Bögels and Lamers, 2002; Bögels and Mansell, 2004). It also has the potential to increase the bias toward a negative self-perception (Clark and Wells, 1995; Hackmann et al., 1998). Anxiety, arousal, and heightened negative self-evaluation (e.g., Bögels et al., 1996; Woody, 1996; Wells and Papageorgiou, 1998; Woody and Rodriguez, 2000), as well as social withdrawal (Alden et al., 1992; Bögels and Mansell, 2004), all appear to be linked to higher SFA. Increased SFA is also seen in those with subclinical social anxiety as well as patients with fully developed SAD. In this regard, SAD is thought to be at the top end of a social anxiety range that runs

from asymptomatic (e.g. shyness) to clinical signs (e.g. social phobia) (Stein et al., 2000).

1.4.1. Studies about Self-Focused Attention and Social Anxiety

Attention directed to self has been investigated in several studies. Self-report questionnaires and experimental studies were used and consistently showed increased SFA in socially anxious individuals.

A study by Woody and Rodriguez (2000) compared normal controls and socially anxious individuals to determine the extent to which self-focus exacerbates anxiety and impairs social competence. Twenty clients with a principal diagnosis SAD formed the clinical group. Approximately 40% of the clients suffered from a phobia of public speaking. The remaining clients diagnosed with generalized social anxiety all admitted to having serious difficulty speaking in public. The experimental approach was used as part of the pretest for a group therapy program for social anxiety. Twenty participants made up the comparison group. Participants worked in pairs on the activity. Two participants stood side by side in front of an audience of four consisting of research assistants and staff from the clinic where patients with social anxiety were receiving treatment. The men and women in the audience ranged in age from 20 to 50. The majority of the audience was unaware of the participants' diagnostic condition, and participants were unaware of their experimental partner's diagnostic condition. Each participant was randomly assigned to one of two speaking roles: Speaker or Passive. The speaker was instructed to deliver two 2-minute extemporaneous speeches. The speeches were about bodily sensations, cognitions, and emotions associated with giving a speech to an audience, but the person who was the subject of the speech changed from trial to trial. In one experiment, the speaker's speech focused on her own current experiences: her physiological sensations, cognitions, and emotions. In another trial, the speaker's remarks focused on the passive participant's behavior, bodily sensations, and presumed cognitions and emotions. In addition, the role of negative evaluation as a modulator of this association was examined. The results supported the hypothesis that SFA plays a functional role in anxiety but not in social performance, and this association was observed in both the normal control group and the social phobic group. Surprisingly,

fear of negative judgment was not a component in this relationship. These results are examined in the context of the shift in attributions for social efficacy that is due to the perspective shift induced by SFA. The main effects of attentional focus on anxiety were predicted, implying that SFA increases the level of anxiety felt by participants (Woody and Rodriguez, 2000).

Spurr and Stopa (2003) conducted a study to examine the effects of adopting the observer perspective (part of SFA) on thinking, anxiety, behavior, and social performance in participants with high (N= 22) and low (N= 22) social anxiety. The 44 participants gave two speeches, one from the observer perspective and the other from the field perspective. In both groups, the observer perspective resulted in more negative thoughts, more SBs, and lower self-evaluation of performance. There were also strong trends in the observer perspective indicating an increase in anxiety and ratings of thought beliefs compared to the field perspective. The results support Clark and Wells' model SAD. According to this study, the observer perspective can provide good information for individuals with low social anxiety (Spurr and Stopa, 2003).

Vriends et al., (2016) investigated the effects of self-concept (interdependent vs. independent) on SFA in socially anxious individuals. Among individuals with a mutualistic self-concept, those who are highly socially anxious have lower SFA than those who are low in social anxiety. For individuals with an independent self-concept, the influence of social anxiety was less pronounced and went in the opposite direction. These results suggest that social anxiety self-concept is dependent on SFA (Vriends et al., 2016).

Vriends and Meral et al., (2017) conducted an ecologically valid study of SFA functioning in social anxiety (disorder). In Experiment 1, socially anxious single females (N = 26 vs. N = 25) aged 18 to 30 years conversed via video ("Skype") with a charming male interlocutor while watching themselves and the interlocutor on the screen. The four stage of the conversation were warm-up, positive (the accomplice was friendly to the participant), critical (the accomplice was critical of the participant), and active (the accomplice was critical of the participant) (the participant was educated to ask the accomplice questions). Participants' gaze length at their own image was compared to the accomplice's video image and other regions on the computer screen to determine SFA. According to the results, participants with HSA

were more focused on themselves during the critical stage but less focused on themselves during the active stage than participants with low social anxiety. Women diagnosed with SAD (N = 32) and control subjects (N = 30) between the ages of 18 and 30 participated in Experiment 2. The SFA was higher in participants with SAD than in control subjects at all four stages of the interaction, and the SFA envisaged increased self-rated anxiety through discourse. In summary, SFA is elevated only when the interaction partner is crucial in subclinical social anxiety, whereas instructing the accomplice to ask questions reduces SFA, and clinical SAD is characterized by elevated SFA along the interaction. The findings support previous theories that SFA contributes to SAD, implying that interventions to decrease SFA could help in the prevention and treatment of SAD. On the other hand, SFA may adapt to certain types of encounters, such as receiving compliments (Vriends and Meral et al., 2017).

In a study by Zou et al., 2007, the results of the research supported the theory that attentional processes are associated with social anxiety. In individuals with high levels of blush anxiety, there appears to be a causal relationship between SFA and social anxiety, with higher levels of self-focus possibly leading to social anxiety. The purpose of this study was to determine how attentional focus affects social anxiety in a group of individuals with high and low blush anxiety. The blushing anxiety subscale of the blushing questionnaire was used to assess a total of 141 psychology students. A high (N= 22) and a low (N= 22) blush anxiety group were formed from the subjects with the highest scores in the top and bottom 20% of the distribution. Subjects were randomly assigned to one of two conditions: SFA (SFA) or task-focused attention (TFA). They were asked to choose self-focus (SFA condition) or task-focus (TFA condition) during a 5-minute interaction with the first author (TFA condition). Social anxiety and self-perception were assessed using visual analog tests. Results indicate a significant interaction between conditions and group, with high blushers reporting significantly higher levels of social anxiety in the SFA condition than in the TFA condition, while low blushers showed no significant difference between the two conditions. (Zou, Hudson and Rapee, 2007).

Meral and Vriends, 2021, examined how negative versus good self-image affects social anxiety and SFA in social situations. Severely (n = 27) and weakly (n = 36)

socially anxious individuals were presented with a real-time video encounter with an interlocutor with a controlled negative or positive self-image, respectively. Questionnaires were used before and during the interview to assess social anxiety, SFA, and state anxiety. Highly socially anxious individuals with a poor self-image in mind were more anxious during the interview than those with a positive self-image in mind, according to a study that examined the relationship between negative self-image and social anxiety. They were also more anxious than less socially anxious individuals. SFA was also higher in individuals who were more socially anxious. However, SFA was not affected by whether participants had a negative or positive self-image. The current findings show that self-image and SFA have a significant influence on social anxiety, with individuals who have a negative selfimage being more likely to be socially anxious. Furthermore, the current results show that SFA is not always influenced by negative self-image, implying that interventions should address both (Meral and Vriends, 2021).

Boehme et al., (2014) examined brain correlates of SFA using functional magnetic resonance imaging in 16 highly socially anxious (HSA) and 16 low socially anxious (LSA) individuals. Participants were instructed to focus their attention inward or outward during a simulated social event. Results show hyperactivation of the medial prefrontal cortex (mPFC), temporoparietal junction (TPJ), and temporal pole during inward versus outward attention when HSA participants are compared to LSA subjects. Activity of the mPFC, right anterior insula, TPJ, and posterior cingulate cortex in HSA subjects was also associated with the SFA trait. The data suggest that the mPFC and other cortical regions play a significant role in the improvement of abnormal SFA in social anxiety. Finally, results from the insula suggest that greater processing of physical states is associated with the degree of habitual SFA in social anxiety. (Boehme et al., 2014).

1.5. Safety Behavior

People confronted with a potentially dangerous object or scenario often engage in safety behaviors (SB) to avoid a potentially dangerous outcome (Wong and Pittig, 2022). SB is described as a set of behaviors that a person believes are necessary to avoid a fearful outcome (Piccirillo et al., 2015). The use of SBs is also common

among individuals with anxiety disorders (Plasencia et al., 2011). To avoid anxiety, socially anxious individuals may use SBs before an anxiety-provoking event, such as avoiding the scenario altogether (Kocovski et al., 2016). Avoiding eye contact, applying extra makeup to hide blushing, hiding hands in pockets to hide trembling, and rehearsing what is said before speaking are all examples of SBs that may occur during a feared event in socially anxious individuals (Kocovski et al., 2016). Individuals with social anxiety do not always engage in harmful social behaviors; rather, in modern theories, such actions are considered protective (Plasencia et al., 2011). To avoid discomfort or social rejection, a socially anxious person may attend a party but only talk to those they know. SBs can also be implemented through internal processes. To avoid embarrassment by stumbling over his words, a socially anxious person who is afraid of making mistakes when speaking in public may do extensive memorization and fact checking. These activities may reduce anxiety briefly, but they ultimately prevent socially anxious individuals from obtaining data about their anxiety, which promotes to the maintenance of anxiety in the future. (Piccirillo et al., 2015).

However, on many variables, the negative effects of avoidance SBs are more pronounced than those of impression management SBs. According to a number of studies, these SBs can be divided into two groups: Avoidance and Impression Management. The avoidance subgroup consists of behaviors that focused mainly on avoiding social interactions (e.g., making less eye contact, staying on the periphery of a group, and speaking less). Actions that give the appearance of trying to closely monitor and adjust one's appearance to make a positive impression are included in the impression management subgroup (e.g., mentally rehearsing sentences, imagining how one comes across) (Gray et al., 2019). In a study conducted by Gray, Beierl and Clark (2019), participants felt they looked more anxious when they practiced avoidance SBs but not when they practiced impression management SBs, and they were less interested in continuing the conversation. Avoidant SBs also had a detrimental effect on the other person in the conversation. When individuals practiced avoidance SBs, they were viewed as more anxious and less liked by their conversation partner. They also seemed to like the conversation less and were less interested in continuing it with a partner who practiced avoidant SBs. Independent investigators' ratings followed a similar pattern. When participants practiced avoidant SBs, they

received lower scores from an impartial rater for the positive items on the dialog checklist. This effect was not found for impression management SBs (Gray, Beierl and Clark, 2019). The use of SBs may make anxious individuals feel accommodating and comfortable for a short period of time, but this may cause anxious individuals to remain anxious about the situation in the long run. In some cases, such behaviors may even increase the likelihood that the feared outcome will occur or contribute to other negative outcomes (Plasencia, 2008).

Researchers thoroughly reviewed the literature on SBs in anxiety disorders in other studies (including health anxiety, obsessive-compulsive disorder, panic disorder, agoraphobia, SAD, and specific phobias). Inconsistencies in the conceptualization of SB as well as differences in empirical technique have been cited as factors contributing to the conflicting findings about the effects of SBs on treatment outcomes. It was concluded that SBs are dysfunctional and should be avoided throughout therapy (Piccirillo et al., 2016).

1.5.1. Studies about Safety Behavior and Social Anxiety

SB has been investigated in several studies using observations, self-report questionnaires, and experiments. The preliminary study by McManus et al., (2008) assessed the use of SBs in participants with high and low social anxiety using a semistructured interview. The HSA group reported using a greater number of SBs, more consistently, and in a greater number of contexts, as expected from the cognitive models. Both the high and low social anxiety groups considered their SBs useful. The study manipulated the use of SBs and self-focus in an experimental setting and found that the use of SBs and SFA was unhelpful in several ways. The results support the importance of SBs and SFA in the cognitive model of social phobia and the therapeutic benefits of decreasing self-focus and decreasing SBs in social phobia (McManus et al., 2008).

The cognitive model of social anxiety proposed by Clark and Wells (1995) has been thoroughly tested in adults. According to this model, SFA, negative representations of oneself in the observer perspective, and SBs keep people with SAD in fear. The model is supported by an empirical study in adults, but there is little evidence for it

in other age groups or in the general public. The outcome variables were examined between teens with high and normal self-reported social anxiety and between teens with clinical/subclinical social phobia and those without a diagnosis. Teens with HSA were more likely than teens with normal self-reported social anxiety (NSA) to report overall negative thoughts, negative observer perspective images, and SBs. Compared to the group without a diagnosis, the group with social phobia (SP) and the group with subclinical social phobia (SSP) showed the same difference, but it was more pronounced, and they also had more negative feelings about themselves. The groups showed minor differences in coping. Their automatic thoughts, images, SBs, and general coping mechanisms were assessed. To determine these, a thought listing procedure was used to recall a stressful social event (Ranta et al., 2014).

Avoidant behavior is an important factor in maintaining anxiety in social anxiety. Interpersonal distance was measured as an index of avoidance, an unintentional behavioral predictor, using immersive virtual reality technology in the analysis. Twenty-three female participants with varying degrees of social anxiety approached computer-generated individuals (avatars) in a virtual store under the guise of a cover story. The results supported the hypotheses: The more anxious the participants were, the slower they approached the avatars and the greater the distance they kept from them. This suggests that even subphobic social anxiety is associated with unintentional social avoidance behavior. (Rinck et al., 2010).

It is hypothesized that concerns about self-presentation underpin the experience of social anxiety (SA) and promote associated avoidance strategies and SBs. Another study examined the nature of self-presentation concerns, i.e., the underlying fears that certain bad aspects of one's personality might be exposed and ridiculed by others during social interactions, and their relationship to affect and actions in a group of 194 individuals. Results showed that a diagnosis of SAD is associated with higher risk for increased selfpresentation problems, that such fears predict significant differences in the use of SB in different contexts, and that the use of SBs mediates the relationship between such matters and the experience of increased negative affect (Moscovitch et al., (2013).

Another study by Weerdmeester and Lange (2019) examined compensatory behavior in individuals with varying levels of social anxiety who had been rejected in various ways. Thirty-four female students were rated on their level of social anxiety before being rejected or outright accepted by one, two, or three fictitious fellow students based on a personal profile they provided. Participants had to rate the creativity of each other's drawings, and in a pro-social incentive paradigm, the other participants were rewarded with money based on their creative ratings. A social approach/avoidance task was also used to examine latent tendencies to socially approach images of rejects, acceptors, or innocent people. Results showed that individuals with low levels of social anxiety respond to rejection in a compensatory pro-social manner, both explicitly and implicitly, whereas individuals with high levels of social anxiety do not. Only implicit approach/avoidance tendencies showed a difference between rejecters and innocents when it came to sources of rejection (Weerdmeester and Lange, 2019).

The aim of the study conducted by Schreiber, Heimlich, Schweitzer and Stangier in 2015 was to find out how the "SFA and SB experiment" improves treatment outcomes. This research was part of a 16-session randomized controlled trial for SAD that comprised either individual cognitive therapy (CT) or interpersonal therapy (IPT). A contemporaneous time series study of the effects of the SFA and SB studies on subsequent social anxiety was done in 32 patients with SAD who were receiving cognitive therapy (1, 2, 3, and 4 weeks after intervention). Two role plays on a social scenario were included in this study. Patients were first asked to focus their attention on themselves and engage in normal SBs. In a second role-play, patients were asked to turn their attention outward and refrain from SBs. After each role-play, patients reported their subjective feelings of anxiety. Finally, patients were asked to reflect on the impact of their SBs and attention focusing on their social anxiety by discussing their individual anxiety scores for both circumstances. Results showed a significant reduction in social anxiety over the month following the SFA and SB challenge. In summary, the results of this study highlight the importance of SFA and SB treatments in cognitive therapy for SAD (Schreiber et al., 2015).

To examine the effect of reduced SBs on social anxiety and negative thoughts, Kim (2005) compared three types of exposure: exposure with reduced SBs under cognitive

rationality, which means using reason or logic to think through a problem, exposure with reduced SBs under extinction rationality, which means not reinforcing a conditioned response to eliminate or reduce it, and exposure without changing SB. One of three exposure groups was allocated to 45 socially anxious patients at random. Results showed that exposure to cognitive thinking and reduced SBs reduced anxiety and appraisal of feared outcomes significantly more than exposure to extinction reasons or exposure without changing SBs. These results suggest that exposure may be more beneficial in encouraging socially anxious individuals to drop their SBs in the feared social context and that the cognitive process of invalidating negative beliefs is an important aspect in determining the efficacy of lowered SBs.

Taylor and Alden, 2010 discovered the relationship between SBs and social perceptions in two studies in SAD. They examined the effects of changing SBs in a controlled laboratory-based social interaction on the social appraisals of socially anxious individuals (N=50 in Study 1) and individuals who met diagnostic criteria for generalized SAD (N=80 in Study 2). The participants were assigned at random to one of two conditions: SB reduction with exposure (SB + EXP) or progressive exposure (EXP), after which they conversed with a trained experimental colleague. In all studies, participants in the SB + EXP group were less negative and more accurately rated their performance after SB reduction than participants in the EXP group. In addition, compared to controls, participants in the SB + EXP group rated the likelihood of an unfavorable outcome in a future social event lower. Changes in SBs also mediated shifts in participants' selfperceptions and social expectations for the future. Safety measures play a role in maintaining negative social appraisals in SAD, according to the findings, which confirm cognitive models of anxiety. (Taylor and Alden, 2010).

In summary, research suggests that SFAs and SBs play a significant role in the improvement and maintenance of SAD. Socially anxious individuals have been shown to report increased SFA in social situations and to use more SBs.

1.6. Aim of the Thesis

Social anxiety is a life-impairing disorder. If we look at Clark and Wells' model, Self-

Focused Attention (SFA) and Safety Behavior (SB), we can see that it plays a crucial role in the development of SAD. Although these crucial components have been investigated in previous studies, this area of research is still lacking in Turkey. There are only a number of studies that examine all these concepts together. The present study, focusing on the cognitive model of social anxiety developed by Clark and Wells (1995), aims to examine the differences between SFA and SB of individuals with high and low social anxiety. Furthermore, these differences will be examined using three different scenarios of social situations (performance, observation, and social interaction). Research in this area has shown a persistent relationship between social anxiety and SFA, namely that individuals with HSA exhibit elevated SFA. Moreover, it has been consistently observed that individuals with HSA use more SB to reduce their anxiety in social situations. Thus, both SFA and SB have been considered important maintaining factors for social anxiety. Nevertheless, these two factors are usually assessed with self-report measures and/or only in relation to a specific social situation, such as interaction situations only. Therefore, in the present study, three different social situations were included to assess the differences in SFA and SB in individuals with high and low social anxiety and to examine the group differences between individuals with low and HSA.

The results will lead to a better understanding of SAD and provide guidance in linking social anxiety to SFA and SB. In addition, it is anticipated that the study will make an important contribution to the literature by examining whether social anxiety, SFA, and SBs differ according to social situations. Research examining all these factors together is limited, especially in Turkey. Generally, social anxiety, SFA, and SB are measured using self-report scales. In the present study, these issues were to be investigated using a semi-experimental design to see how people respond to different social situations. Differences between high and low socially anxious individuals will be analyzed investigating also differences of three social situations. All of the above information, the following hypotheses were formulated.

Hypothesis 1: Individuals with high social anxiety will experience more anxiety in all social situations than individuals with low social anxiety.

Hypothesis 2: Individuals with high social anxiety will report more self-focused attention in all social situations than individuals with low social anxiety.

Hypothesis 3: Individuals with high social anxiety will be more prone to safety and

avoidance behaviors than individuals with low social anxiety.

Hypothesis 4: Individuals with high social anxiety will be less prone to anxiety after choosing safety behaviors than individuals with low social anxiety.

Hypothesis 5: Individuals with high social anxiety will be less satisfied after choosing a safety behavior than individuals with low social anxiety.



CHAPTER 2: METHOD

2.1. Participants

The study was conducted online with volunteer participants (N=285). The age range of the participants was between 18 and 77 years (M=37, SD=13,7), and the participants' gender was male (N=99), female (N=184) and a person who does not want to specify. The participants' education level was as following; Ph.D. (N=13, %4,6), master's degree (N=55, %19,3), bachelor's degree (N= 187, %65,6), and the rest (N=30, %10,6) of the participants graduated from high school, middle school, or elementary school. In our study, most of the participants were working (N= 193, % 67,7), the minority group was students (N= 38, %13,3). The relationship status of the participants showed that %51,2 of them were in a relationship or married (married N=110, %38,6 and in a relationship N=36, %12,6). In consideration of the social-economic status of participations was majority group was the highest income group (6500 TL and more) (N=93, %33,1) and minority group was the lowest income group (2000 TL and less) (N=45, %16).

2.2. Materials

2.2.1. Demographic Information

A demographic information form was developed by the researcher for the current study. The demographic information form included questions about age, gender, educational level, working status, and social economics status (see Appendix B).

2.2.2. Liebowitz Social Anxiety Scale (LSAS)

The Liebowitz Social Anxiety Scale (LSAS), the first clinician-rating scale for social phobia, was created to assess the range of social interaction and performance situations that people with social phobia can fear and/or avoid (Heimberg et al., 1999). The scale consists of a total of 48 items, 24 items of anxiety, and 24 items of avoidance. Participants were asked to rate their anxiety in a given situation on a scale

of 0 to 3 (0 = none, 1 = mild, 2 = moderate, 3 = severe) and how frequently they avoid the situation (0 = never, 1 = occasionally, 2 = frequently, 3 = usually) (Heimberg et al., 1999). Its 24 items are divided into two subscales that address social interaction (11 items) such as calling someone you don't know well, going to a party, etc. and social performance (13 items) situations such as speaking up at a meeting, entering a room when others are already seated, etc. The reliability of the LSAS was evaluated with Cronbach's (1951) alpha coefficient and alpha coefficients of approximately .80–.85 (Heimberg et al., 1999). The total fear and total avoidance scores are added together to get an overall total score (Rytwinski et al., 2009). According to research conducted by Mennin et al., 2002, on the LSAS total score, cutoffs of 30 for SAD and 60 for its generalized subtype represented the optimal blend of specificity and sensitivity. Another study found that a score of 30 on the clinician-administered LSAS was the best balance of sensitivity (the likelihood of having a positive test result among individuals with a positive diagnosis) and specificity (the likelihood of having a negative test result among individuals without the diagnosis) for distinguishing patients with SAD from adaptive controls. Similarly, a score of 60 provided the best balance of sensitivity and specificity for distinguishing patients with generalized and nongeneralized social issues (Rytwinski et al., 2009). In the current study, the Turkish version of LSAS was used which was adapted by Soykan, Özgüven, and Gençöz, 2003. In the process of adapting the Turkish version, two independent clinicians who are proficient in English and Turkish and have good psychological backgrounds translated the Liebowitz Social Anxiety Scale into Turkish. Back translations were also performed by two other independent clinicians who shared the same features. The final form was chosen by these four clinicians. The Turkish version of the LSAS was Cronbach's $\alpha = .98$ (Soykan, Özgüven and Gençöz, 2003). The Turkish version of the scale was administered to 128 individuals in total, with 88 individuals being exempt from psychopathology, and its validity and reliability were proven. Cronbach alpha for the Anxiety subscale items was .96; for the Avoidance subscale, it was .95; and for the entire scale, it was .98. The subscale cut-off score was set at 25, while the overall scale cut-off score was set at 50 for the Turkish version of LSAS (Soykan, Özgüven and Gençöz, 2003).

2.2.3. Self-Focused Attention Scale, (SFAS)

Self-focused attention (SFA) is described as aware of self-referent, internal knowledge, as opposed to being aware of external knowledge (Kiropoulos and Klimidis, 2006). SFAS was created to assess one's capability to concentrate or pay attention to oneself. It consists of 11 objects, five of which are self-focus based on arousal, and six are self-focus based on interpersonal behavior (Bögels, Alberts and De Jong, 1996). The Turkish version of the SFA Scale was examined by 315 university students in 2013 by Akin, Akkuş, Bilgin, Güneş and Demir. In the study, not all the items were used for assessment. Instead of integrating all the 11 items into the study, we used the subscale arousal and we added two items of the subscale behavior, which were relevant to scenarios. After reading each relevant scenario, participants were asked to rate SFA items from 1 (not at all) to 10 (very much). The more point individual gets, it means SFA is higher.

2.2.4. Scenarios

Situations that trigger social anxiety are divided into three categories in the DSMV, such as performing in front of others (e.g., oral presentations), watching others (e.g., eating or drinking in front of others), and social interactions (e.g., meeting unfamiliar people) (American Psychiatric Association, 2014). Three different scenarios were created by the researcher for the study and are presented below (Table 2). The scenarios were created according to the definition of situations associated with social anxiety. In creating the scenarios, a pilot study was conducted to test the reciprocal effect on the participants. 34 participants took part in the pilot study. The pilot study included three scenarios: social interaction (attending a company party), performance (giving a presentation), and observation (eating in front of others). SFA items were included to see if the scenarios were related to SFA, and questions were asked to see if the scenarios triggered participants' anxiety levels and satisfaction. In addition, for each scenario, we asked participants if the scenario was believable and easy to imagine, and if it was a situation that happens frequently to participants in their lives. Finally, their opinions on the scenarios were solicited to provide feedback on the scenarios. The conclusion of the pilot study was that the last scenario, being watched while eating or drinking, had no effect on the participants' anxiety level and that it

was a situation that no one would experience that often. Then the scenario of entering the restaurant was changed to participants entering the restaurant eating and drinking while seated, rather than experiencing eating in front of others while being observed. A second pilot study was conducted that included only the new version of the restaurant visit scenario and was completed by 25 participants who had not previously participated in the first pilot study. It was found that the new version of the third scenario represented a situation that individuals were more likely to experience in their lives. In the end, three scenarios were formed after the pilot study (Table 2).

2.2.5. Alternative Behaviors

After reading the scenarios, all participants were offered an alternative behavior choice related to the situation, such as adaptive behavior, SB, and avoidance behavior. In psychological models, adaptive behavior is described as understanding the distribution/occurrence of adaptive behaviors such as realistic beliefs, attitudes, and self-efficacy (Conner, 2002). Individuals who are socially anxious may use SB such as situation avoidance to avoid feelings of anxiety prior to an anxiety-provoking event. For each scenario, one adaptive, one safety, and one avoidance behavior was developed by the researcher and also tested in the pilot study. The alternative behaviors are listed in Table 2.

Table 2. Scenarios

Scenario 1 (Interaction)

You've just landed a new job and it's been a while since you've been hired. You haven't had the opportunity to meet and talk to the majority of co-workers yet. You're invited to a Christmas party where you know only 1 or 2 people you've met will be going. You're a little worried about how it's going to go, because people don't know how to greet you. A few days ago, you started to think about what to wear, how to go, who will be at the party. On the one hand, you think that you should go because it is a corporate party and you know that everyone will go, and you have yet to decide whether or not to go.

Table 2. (Continued). Scenarios

- I go to the invitation and think that it is an opportunity to get to know my colleagues, I meet my colleagues and chat (Adaptive Behavior).
- Even though I have no other plan, I say I have another plan and I cannot attend the party (Avoidance Behavior).
- I go to the invitation, but without attracting anyone's attention, I create a circle for myself in an uncrowded area and only communicate if I come across people I know (SB).

Scenario 2 (Performance)

You have been asked by your workplace to make a presentation to explain your business analysis at a conference. You had about 1 week to prepare for your presentation and you completed all your preparations. The day before the presentation day, you learned that a much larger crowd than expected will listen to you, that many knowledgeable people in your field will listen to you and that your senior management will attend, and you started to get nervous.

- Before I enter the presentation, I think that I am well prepared for this presentation, take a deep breath, and start presenting the presentation as I prepared and studied (Adaptive Behavior).
- I say that I am not feeling very well and ask a friend who is working on the presentation with me to make the presentation (Avoidance Behavior).
- I will make the presentation, but I would like to finish the presentation as soon as possible. I complete the presentation by looking at my slides without making too much eye contact and conveying the information on my slides (SB).

Scenario 3 (Being observed)

A close friend you haven't seen for a long time called you and offered to go out to dinner. You have decided to go to the most popular and often very crowded restaurant in your area. Your friend reports that he has made a reservation but will be 10-15

Table 2. (Continued). Scenarios

minutes late due to an unplanned mishap. Since you arrive on time, you enter through the door of the restaurant. You see that it is quite crowded inside and when you enter, you feel that everyone is looking at you. When the waiter comes to you and asks if you have a reservation, you feel as if everyone's eyes are still on you.

- This bothers me a lot, I tell the waiter that I will wait for my friend at the door, I wait outside for my friend to come (Avoidance Behavior).
 - Although this situation bothers me a lot, I learn about the reservation desk, head towards the table quickly without making eye contact with anyone and sit with my back to the community (SB).
 - I don't mind everyone looking at me. I find out the reservation desk, I go to the table to wait for my friend (Adaptive Behavior).
-

2.2.6. State Anxiety and Satisfaction Level

The visual analogue scale (VAS) has long been offered as a way to circumvent the limitations of ordinal metrics of Likert scales (Sung and Wu, 2018). Scores ranging from 1 to 10 were used to measure anxiety level and satisfaction with the chosen behavior VAS. In the present study, participants were asked two questions VAS before indicating the study. First, participants were asked to rate their anxiety level at that time on a scale of 1 (not at all anxious) to 10 (very anxious) and how comfortable they felt on a scale of 1 (not at all comfortable) to 10 (very comfortable) as a baseline measurement. After reading the scenarios, they were asked to rate their feelings of anxiety again using VAS and decide which behavior to choose. After deciding on a behavior, participants were again asked to rate their anxiety level and indicate how satisfied they were with the chosen behavior, using a scale ranging from 1 (not at all comfortable) to 10 (very comfortable).

2.3. Procedure

Before the research was put into practice, the research design was first presented to the ethics committee and approval was obtained. The research data was collected

online through Google Forms in the form of self-report using a sketch/scenario study, which is a semi-experimental design. Google Forms is a cloud-based data management tool used for designing and developing web-based questionnaires. Google Forms stores interviewee data in its spreadsheet and provides the ability to export it to other statistical data packages for analysis (Vasantha and Harinarayana, 2016). All participants were given a brief overview of the study and asked to sign an informed consent form stating that participation was completely voluntary and that they could opt out at any time without giving a reason (Appendix A). Then, participants were asked to provide their demographic information (age, gender, education, marital status, employment status, and income level) (Appendix B). Before administration of the Liebowitz Social Anxiety Scale (LSAS) (Appendix C), participants were asked to rate how comfortable they were with their baseline anxiety using VAS. Then, the LSAS was administered. Then, the three scenarios were run in the following order: Interaction, Presentation, and Being Observed (Appendix D). Since Google Forms was used for data collection, randomization was not possible in the study.

Participants carefully read through the prepared scenarios and then assessed their anxiety level in relation to the situation and rated the SFA items associated with the situation (Appendix E). At the end of each scenario, participants were asked to choose one of three different behavioral options (avoidance, safety, and adaptive behavior) in that situation. After choosing a behavior, they were asked two questions (VAS) to assess their level of anxiety after choosing the behavior and their satisfaction with the chosen behavior.

2.4. Data Analysis

After data collection, descriptive statistics (means, standard deviations, frequencies, and percentages) and analyzes of the variables were calculated using SPSS version 21. When the same measurement is taken multiple times for each subject or case, the GLM approach provides an analysis of variance where it is possible to test null hypotheses about the effects of the components both between subjects and within subjects using this general linear modeling technique (Field, A., 2013). In this study, the between subjects (anxiety groups) and within-subjects (state anxiety, satisfaction

level, and SFA level between scenarios) relationships are examined. First, Cronbach's alpha for the Liebowitz Social Anxiety Scale was examined for both the Avoidance Behavior and Anxiety subscales. The avoidance behavior subscale of the Liebowitz Social Anxiety Scale was highly reliable ($\alpha = .94$). The Anxiety subscale also proved to be highly reliable ($\alpha = .92$). To form the groups of high social anxious (HSA= 105) and low social anxious (LSA= 179), the cut of score of 25 of the Anxiety subscale was used (Soykan, Oezgueven, and Gençoez). To examine the group differences between HSA and LSA, an independent t-test was performed. GLM Repeated Measures were used to examine participants' anxiety levels after each scenario, both between subjects (HSA and LSA groups) and within subjects for anxiety levels (baseline anxiety, anxiety levels after each scenario, anxiety levels after the chosen behavior after each scenario), for SFA after each scenario.

CHAPTER 3: RESULTS

Descriptive statistics for the LSAS subscale avoidance behavior yielded an overall mean of $M=19.82$ ($SD = 14.92$) and the LSAS subscale anxiety $M= 21.93$ ($SD =13.45$). The normality of the items of the LSAS avoidance behavior subscale and the items of the anxiety subscale were tested. The results of an independent t-test between the LSAS subscales showed that there was a significant difference between the anxiety groups (HSA and LSA) and scores of the avoidance subscale $t(282) = -18.369, p < .05$ and the scores of anxiety subscale $t(282) = -24.238, p < .05$.

Aiming to investigate if the groups differ regarding gender, a chi-square test was performed to assess if there was a gender differences in HSA and LSA groups. There was no significant difference between gender and anxiety groups $X^2(2, 284) = 2.09, p = .352$. An independent samples t-test was performed to determine if there was a significant relationship between age and anxiety groups (HSA and LSA groups). The results show that there is no significant difference between HSA ($M=35.47, SD =12.58$) and LSA ($M= 37.77, SD =13.61$) groups when it comes to age $t(282) = 1.412, p = .092$.

Also, independent sample t-tests conducted regarding to see if baseline anxiety and comfortableness of participants differs in both groups and results indicated that baseline anxiety did not significantly differ in high and low socially anxious individuals $t(282) = -2.977, p = .929$ and also how comfortable they felt before starting the study $t(282) = 2.035, p = .973$.

Table 3. Characteristics of the Participants in the High Socially Anxious and Low Socially Anxious Group

Variable	Group		χ^2	t	p
	Low socially anxious (N=179)	High socially anxious (N=105)			
Gender (N female/male)	114/65	70/35	2.089		
Mean Age in years (SD)	37.77 (13.61)	35.47 (12.58)		1.412	.092
LSAS Anxiety Mean (SD)	1.5622 (.254)	2.5147 (.409)		- 24.238	.000
LSAS Avoidance Mean (SD)	1.5411 (.416)	2.4990 (.580)		- 16.134	.000
Baseline anxiety	5.64 (2.59)	6.58 (2.51)		2.977	.929
Comfortableness	6.02 (2.39)	5.42 (2.40)		2.035	.873

Note. LSA= Liebowitz Social Anxiety Scale

*Scores above 25 on the LSAS indicate social anxiety

A Chi-Square test was performed to assess the differences between alternative behaviors after scenarios (adaptive, avoidance, safety) and anxiety groups (high and low socially anxious). There was a significant relationship between the two variables for interaction scenario $X^2(2, 284) = 28.04, p < .05$ performance scenario $X^2(2, 284) = 17.15, p < .05$, and being observed scenario $X^2(2, 284) = 25.95, p < .05$, HSA group were more likely to prefer avoidance and SB than adaptive behavior. The alternative behavior chooses for each scenario according to anxiety groups are reported in Table 4.

Table 4. Chosen behavior for each scenario according to anxiety groups

Anxiety Groups		Interaction	Performance	Being observed
Low Socially	Adaptive	144	142	159
Anxious Group	Avoidance	6	9	7
	Safety	29	28	13
Total		179	179	179
High Socially	Adaptive	53	61	67
Anxious Group	Avoidance	10	5	10
	Safety	42	39	28
Total		105	105	105

3.1. Analysis of Baseline Anxiety Level and Anxiety Level After Scenarios

A 2 (anxiety groups; high socially anxious participants, low socially anxious participants) x 3 (scenarios; interaction, performance, being observed) two-way ANOVA (mixed design) was conducted to investigate baseline anxiety and anxiety level of participants after reading the scenarios.

The Mauchly test indicated that the assumption of sphericity had been violated for the main effects. Therefore, as Field, A. (2013) suggested, based on the epsilon (ϵ) value, degrees of freedom were corrected using either Greenhouse-Geisser (if $\epsilon < .75$) or Huynh-Feldt estimates of sphericity (if $\epsilon > .75$). One main effect showed that participants' anxiety levels changed after the scenarios, $F(2, 789, 786, 530) = 127.168$, $p < .05$, partial $\eta^2 = .311$. Another main effect showed that participants with HSA generally reported higher anxiety through the scenarios, $F(1, 282) = 103.693$, $p < .05$, partial $\eta^2 = .269$. An interaction effect between anxiety groups and the scenarios showed a significant difference $F(2, 789, 786, 530) = 9.341$, $p < .05$, partial $\eta^2 = .032$, that the performance situation in particular showed the highest anxiety level in high socially anxious individuals (Figure 2). As can be seen in Figure 2, anxiety is higher in the baseline situation than in the interaction and observation situations, which may

indicate that participants' anxiety is influenced by not knowing what they will be participating in. Post hoc test conducted to determine the difference of mean of anxiety groups between baseline anxiety, scenario of interaction, scenario of performance and scenario of being observed. The Pairwise Comparisons results revealed that the mean difference between baseline anxiety and performance scenario is *not* statistically significant $p = .432$. Pairwise Comparisons results indicates that the significant main effect reflects a significant difference ($p < .05$) between baseline anxiety and scenario of being observed in which mean differences was highest ($MD= 3.577$).

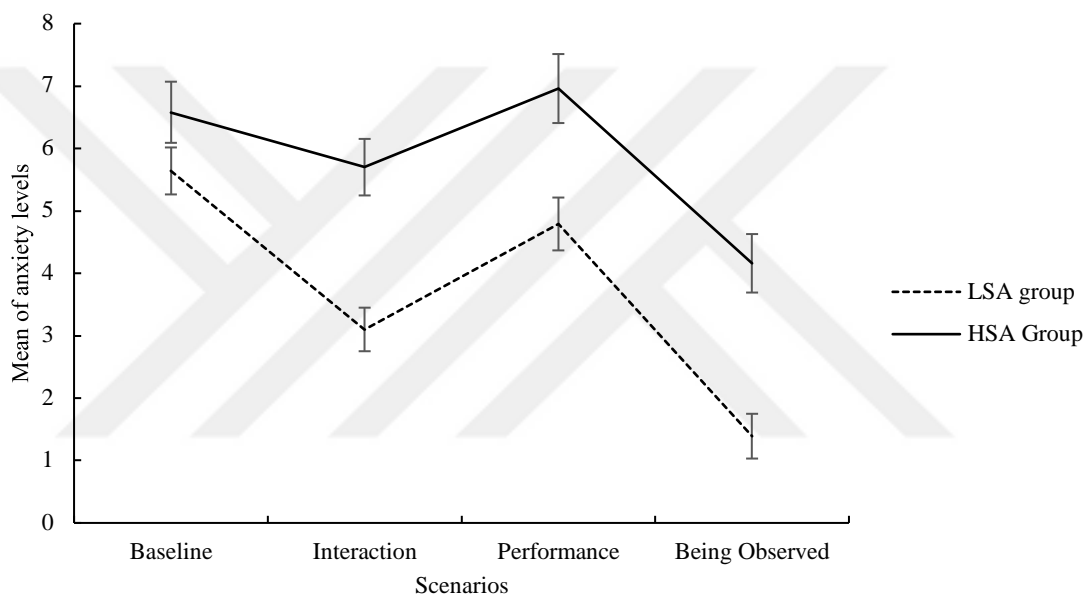


Figure 2. Mean (with 95% CI) mean of anxiety levels after scenarios

3.2. Analysis of Anxiety Level After Choosing Alternative Behaviors Among Scenarios

A 2 (anxiety groups; high socially anxious participants, low socially anxious participants) x 3 (scenarios; interaction, performance, being observed) two-way ANOVA (mixed design) was conducted to investigate baseline anxiety and anxiety level of participants after choosing alternative behavior among scenarios. A main effect showed that participants' anxiety levels changed significantly after choosing the alternative behavior $F(2,730, 769,979) = 98.297, p < .05, \text{partial } \eta^2 = .258$, i.e., specifically, the behavior chosen after the performance scenario showed the highest anxiety. Another main effect showed that socially very anxious participants generally

reported higher anxiety levels after choosing an alternative behavior, $F(1, 282) = 81.018$, $p < .05$, partial $\eta^2 = .223$. An interaction effect between the alternative behavior and anxiety groups was also significant, $F(2, 730, 769, 979) = 4.727$, $p < .05$, partial $\eta^2 = .016$. (Figure 3). As can be seen in Figure 3, the anxiety level is higher at the beginning of the study and at the performance situation, especially for those with high social anxiety.

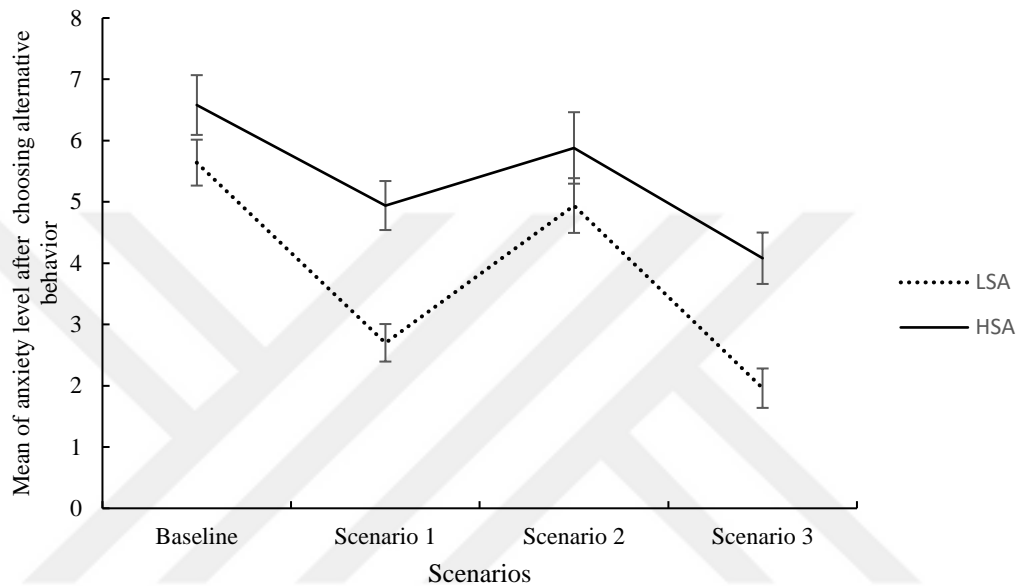


Figure 3. Mean (with 95% CI) mean of state anxiety after choosing alternative behavior among scenarios

3.3. Analysis of satisfaction after choosing alternative behavior

A 2 (anxiety groups; high socially anxious participants, low socially anxious participants) x 3 (scenarios; interaction, performance, being observed) repeated measure mixed design) was conducted to investigate satisfaction level after choosing the alternative behaviors among scenarios. The Mauchly test showed that the assumption of sphericity was not violated for the main effect of satisfaction level, $X^2(2) = 4.244$, $p = .120$. A main effect showed that low socially anxious participants generally reported higher satisfaction through the scenarios, $F(2, 282) = 25.223$, $p < .05$, partial $\eta^2 = .082$. Another main effect of participants' satisfaction after choosing the alternative behavior changed significantly between scenarios $F(2, 564) = 21.779$, $p < .05$, partial $\eta^2 = .072$, that in particular the scenario of interaction showed the

highest satisfaction and the lowest satisfaction for the scenario of performance. An interaction effect showed that there was an interacting combined effect of anxiety group and alternative behavior, $F(2, 564) = 3.307, p < .05$, partial $\eta^2 = .012$ (Figure 4). Post hoc test conducted to determine the difference of mean of satisfaction level of participants among scenarios (interaction, performance, being observed). The Pairwise Comparisons results revealed that the mean difference between interaction and performance situation is *not* statistically significant $p = .126$. Pairwise Comparisons results indicates that the significant main effect reflects a significant difference between performance and being observed situation ($p < .05$) in which mean differences was highest ($MD = 1.183$).

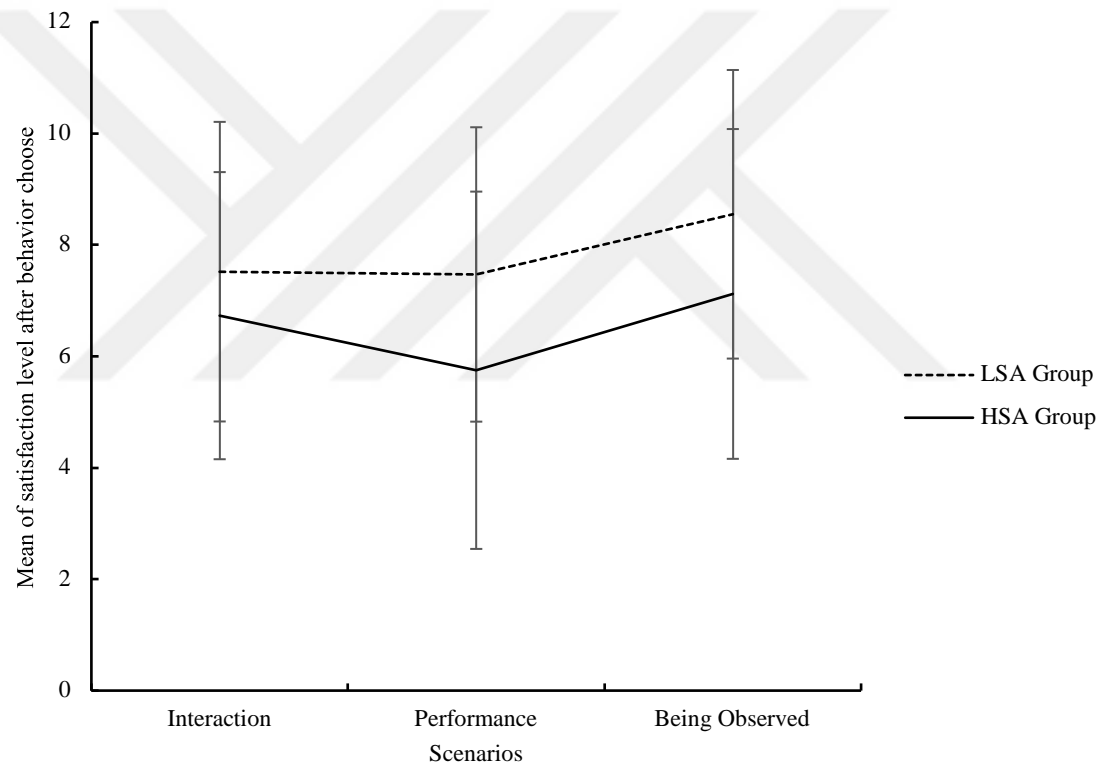


Figure 4. Mean (with 95% CI) mean of satisfaction level after choosing alternative behavior among scenarios

3.4. Analysis of Scenarios

3.4.1. Scenario of Interaction

A MANOVA with between subject factor group (anxiety groups; high socially anxious participants, low socially anxious participants) and within subject factor

alternative behaviors used for two different data (anxiety levels after choosing the alternative behavior and satisfaction level after choosing the alternative behaviors) for scenario of interaction. A statistically significant main effect was obtained, there is a significant effect of the alternative behaviors on participants' anxiety levels after choosing the behavior in the scenario of interaction, $V = .156$, $F(1, 278) = 4.791$, $p < .05$, $\eta^2 = .033$. Another main effect showed that socially very anxious participants reported higher anxiety by the scenario of interaction, $V = .064$, $F(1, 278) = 18.698$, $p < .05$, $\eta^2 = .063$. Thus, the interaction effect showed non-significant effects between the alternative behaviors and anxiety groups, $V = .010$, $F(2, 278) = 1.058$, $p = .348$, partial $\eta^2 = .008$.

In Figure 4, we see that the anxiety level following the choice of behavior was highest for the avoidance behavior in both the HSA and LSA groups. For the HSA individuals, the anxiety level after behavior choice was closer for adaptive behavior and SB; however, for the LSA group, the anxiety level after behavior choice was lowest for adaptive behavior (see Figure 4). Post hoc test conducted to determine the difference of mean anxiety groups between alternative behavior options (adaptive, avoidance, safety) in scenario of interaction. The Pairwise Comparisons results revealed that the mean difference between adaptive behavior and safety behavior is not statistically significant, $p = 1.000$ and mean difference between avoidance behavior and safety behavior, $p = .021$. Pairwise Comparisons results indicates that the significant main effect reflects a significant difference between avoidance and adaptive behavior, $p < .05$ in which mean differences was highest ($MD = 1.734$).

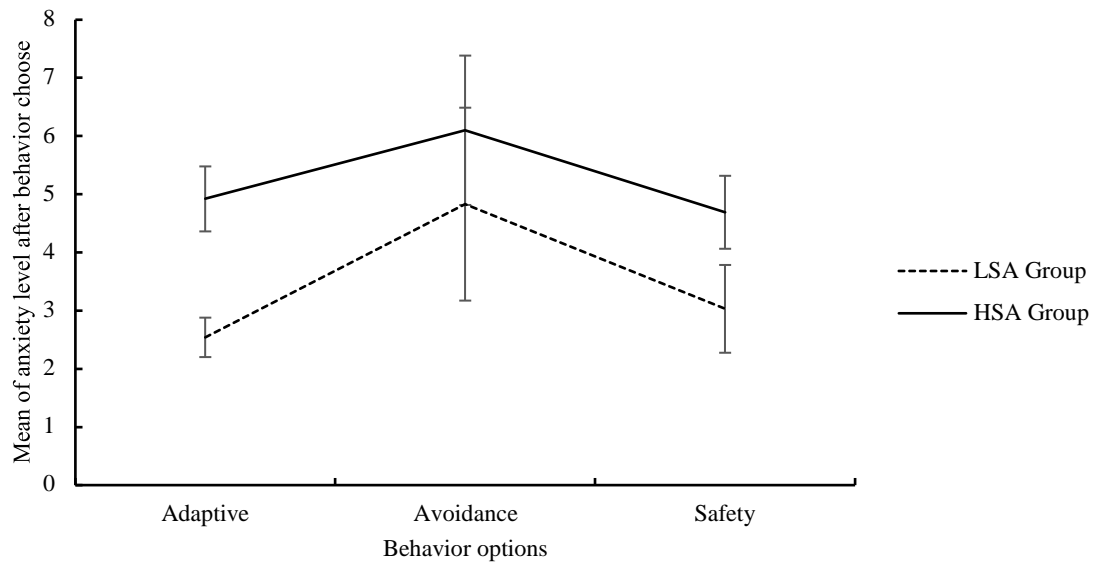


Figure 5. Mean (with 95% CI) mean of state anxiety level of after chosen behavior of the interaction scenario

A statistically significant MANOVA effect was obtained, i.e., there is a significant effect of participants' alternative behaviors on satisfaction levels in the interaction scenario, $V = .156$, $F(2, 278) = 20.084$, $p < .05$, $\eta^2 = .126$. A main effect showed that there was a non-significant effect between anxiety groups by the scenario of interaction, $V = .064$, $F(1, 278) = .071$, $p = .790$, $\eta^2 = .000$. Thus, the interaction effect showed non-significant effects between alternative behaviors and anxiety group, $V = .010$, $F(2, 278) = .311$, $p = .733$, partial $\eta^2 = .002$. Satisfaction levels after choosing an alternative behavior were highest for the chosen adaptive behavior option in both the HSA and LSA groups. In addition, the satisfaction level after choosing the alternative behavior was lowest for the avoidance behavior in the LSA group and the SB in the HSA group (see Figure 6). Post hoc test conducted to determine the difference of mean satisfaction level after choosing alternative behavior between alternative behavior options (adaptive, avoidance, safety) in scenario of interaction. The Pairwise Comparisons results revealed that the mean difference between avoidance behavior and safety behavior is not statistically significant, $p = 1.000$. Pairwise Comparisons results indicates that the significant main effect reflects a significant difference between adaptive behavior and avoidance behavior, $p < .05$ in which mean differences was highest ($MD = 2.270$). In addition, results indicates that the significant main effect reflects a significant difference between adaptive behavior

and safety behavior, $p < .05$.

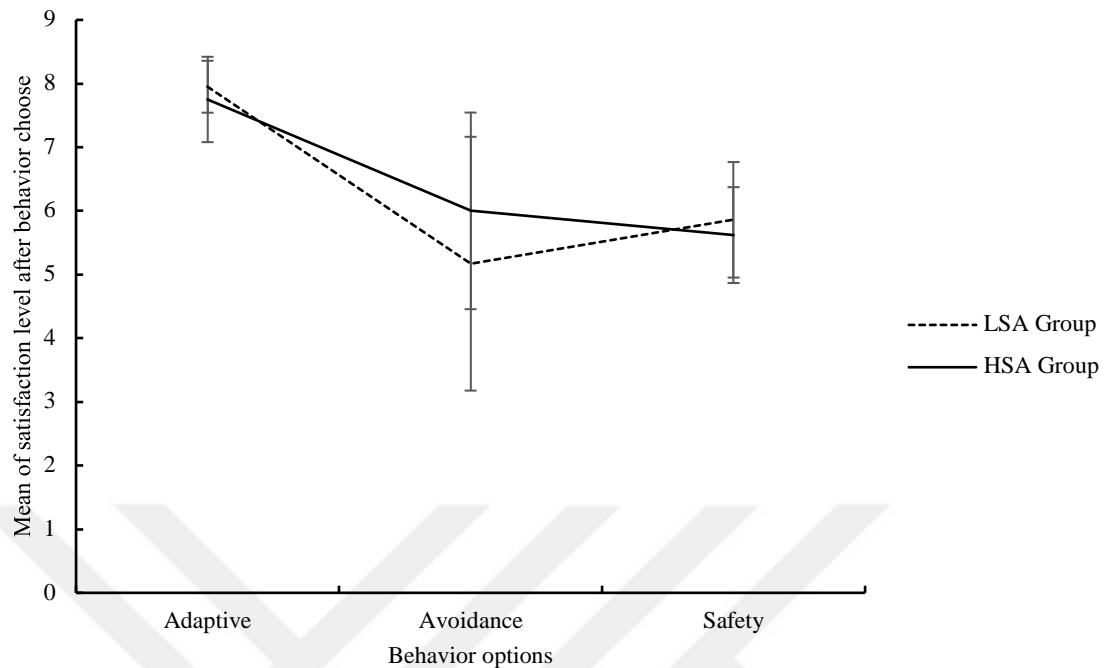


Figure 6. Mean (with 95% CI) mean of satisfaction level of after choosing the alternative behavior of the scenario of interaction

3.4.2. Scenario of Performance

A MANOVA design with between subject factor group (anxiety groups; high socially anxious participants, low socially anxious participants) and within subject factor alternative behaviors was used for two different information (anxiety levels after choosing the alternative behavior and satisfaction level after choosing the alternative behaviors) for scenario of performance. A statistically significant main effect was obtained. The results showed that there was a significant effect of the alternative behaviors on participants' anxiety levels after choosing the behavior in the performance scenario, $V = .294$, $F(2, 278) = 9.826$, $p < .05$, partial $\eta^2 = .066$. Another main effect showed that participants with HSA reported higher anxiety levels through the performance scenario, $V = .064$, $F(1, 278) = 12.082$, $p < .05$, partial $\eta^2 = .042$. Thus, the interaction effect showed non-significant effects between the alternative behaviors and anxiety groups, $V = .014$, $F(2, 278) = 1.553$, $p = .213$, partial $\eta^2 = .011$. Anxiety level after choosing the alternative behavior, avoidance behavior, was highest in the HSA group and lowest in the LSA group. The anxiety level after the choice of behavior

was highest in the LSA group for the SB and lowest in the HSA group for the adaptive behavior option. (Figure 7). Post hoc test conducted to determine the difference of mean anxiety groups between alternative behavior options (adaptive, avoidance, safety) in scenario of performance. The Pairwise Comparisons results revealed that the mean difference between adaptive behavior and avoidance behavior is not statistically significant, $p = 1.000$ and mean difference between avoidance behavior and safety behavior, $p = .571$. Pairwise Comparisons results indicates that the significant main effect reflects a significant difference between safety and adaptive behavior, $p < .05$ in which mean differences was highest ($MD= 3.496$).

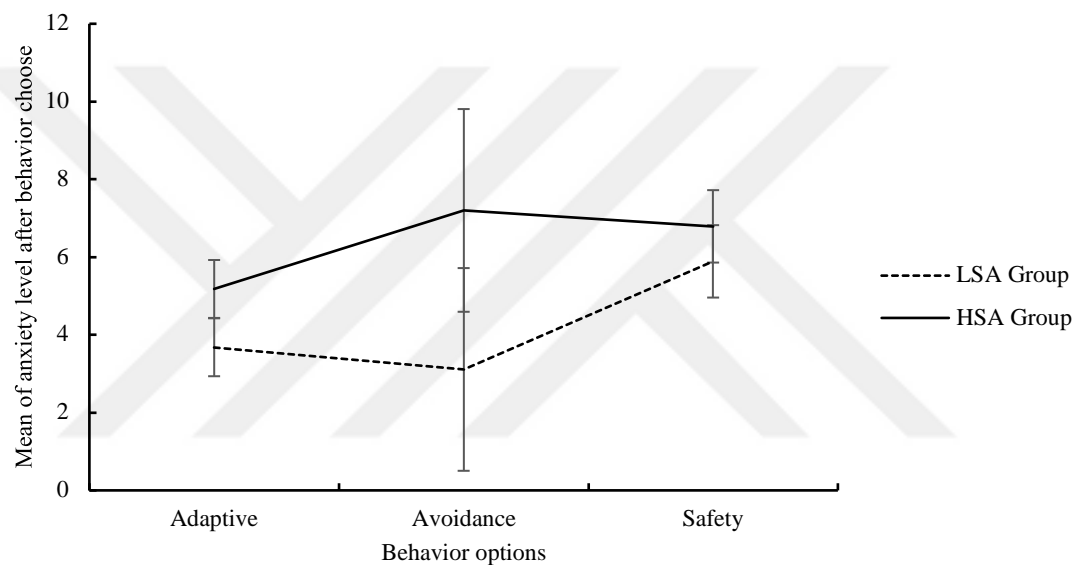


Figure 7. Mean (with 95% CI) mean of state anxiety level of chosen behavior of the scenario of performance

A statistically significant main effect revealed that there was a significant effect of the alternative behaviors on participants' satisfaction level in the performance scenario, $V = .156$, $F(2, 278) = 47.410$, $p < .05$, $\eta^2 = .254$. A main effect showed that there was a significant effect between the anxiety groups by the performance scenario that the LSA group showed a higher satisfaction level than the HSA group, $V = .064$, $F(1, 278) = 6.590$, $p < .05$, partial $\eta^2 = .023$. Thus, the interaction effect showed non-significant effects between alternative behaviors and anxiety groups, $V = .010$, $F(2, 278) = .394$, $p = .675$, partial $\eta^2 = .003$. Satisfaction levels after choosing alternative behaviors were highest for the HSA and LSA groups for adaptive behaviors, average for avoidance behaviors, and lowest for SB (Figure 8). Post hoc test conducted to determine the

difference of mean satisfaction level after choosing alternative behavior between alternative behavior options (adaptive, avoidance, safety) in scenario of performance. The Pairwise Comparisons results revealed that the mean difference between avoidance behavior and adaptive behavior is not statistically significant $p = .022$. Also, mean difference between avoidance behavior and safety behavior is not statistically significant, $p = .571$. Pairwise Comparisons results indicates that the significant main effect reflects a significant difference between adaptive behavior and safety behavior, $p < .05$ in which mean differences was highest ($MD= 1.912$).

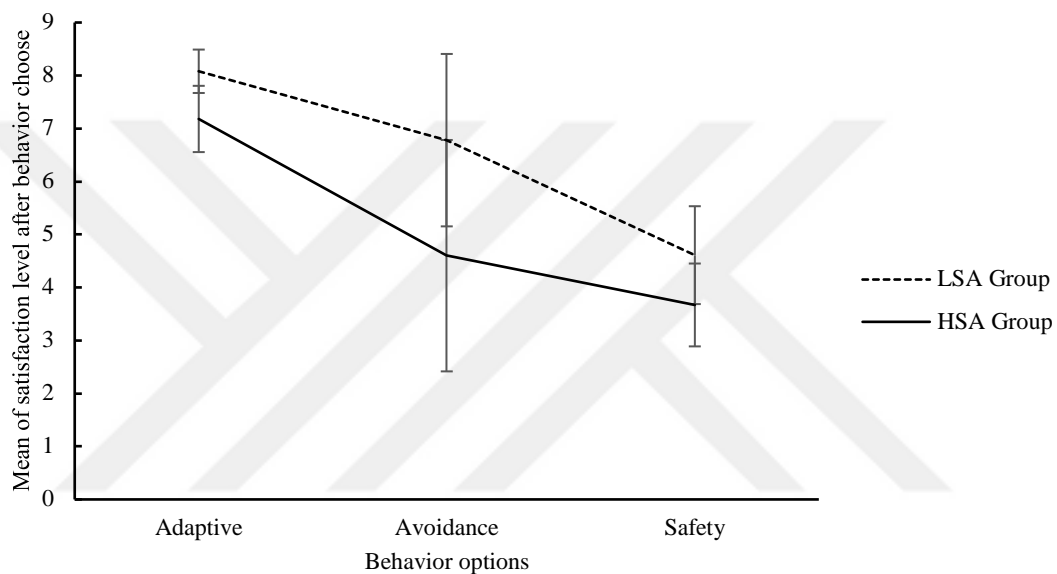


Figure 8. Mean (with 95% CI) mean of satisfaction level of after chosen behavior of the scenario of performance

3.4.3. Scenario of Being Observed

A MANOVA design with between subject factor group (anxiety groups; high socially anxious participants, low socially anxious participants) and within subject factor alternative behaviors was used for two different data (anxiety levels after choosing the alternative behavior and satisfaction level after choosing the alternative behaviors) for scenario of being observed. A statistically significant main effect was obtained. The results showed that there was a significant effect of the alternative behaviors on participants' anxiety levels after choosing the behavior in the scenario of being observed, $V = .234$, $F(2, 278) = 24.086$, $p < .05$, partial $\eta^2 = .148$. Another main effect showed that participants with HSA reported higher anxiety levels through the scenario

of performance, $V = .067$, $F(1, 278) = 13.478$, $p < .05$, partial $\eta^2 = .046$. Thus, the interaction effect showed a non-significant effect between the alternative behaviors and anxiety groups, $V = .035$, $F(2, 278) = .109$, $p = .897$, partial $\eta^2 = .001$. The anxiety level after choosing the behavior was highest for adaptive behaviors, average for avoidance behaviors, and lowest for SB for the HSA and LSA groups (Figure 9). Post hoc test conducted to determine the difference of mean anxiety groups between alternative behavior options (adaptive, avoidance, safety) in scenario of being observed. The Pairwise Comparisons results revealed that the mean difference between safety behavior and avoidance behavior is not statistically significant, $p = 1.000$. Pairwise Comparisons results indicates that the significant main effect reflects a significant difference between safety and adaptive behavior, $p < .05$ in which mean differences was highest ($MD = 2.289$). In addition, there was a significant difference between adaptive behavior and avoidance behavior, $p < .05$.

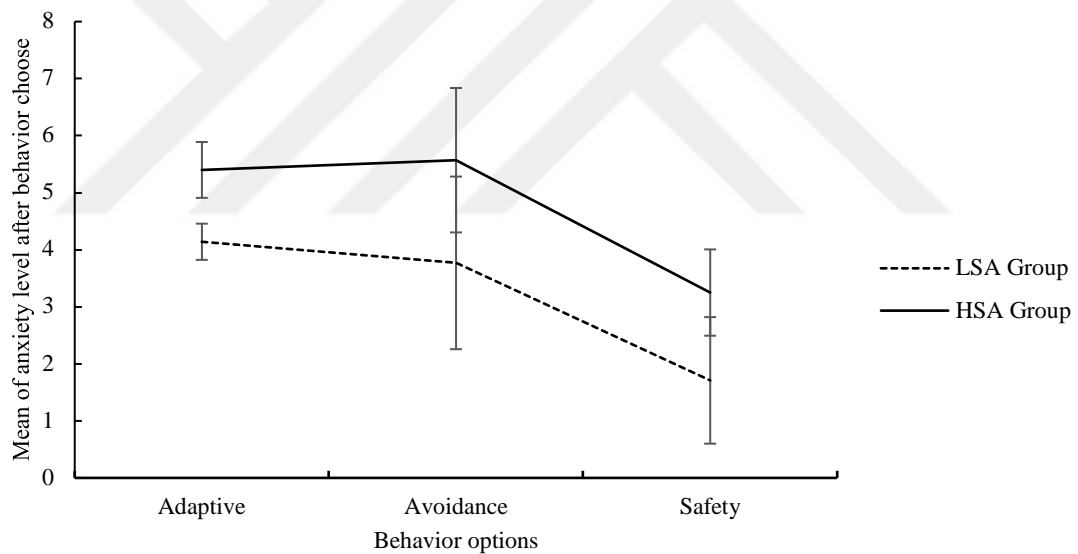


Figure 9. Mean (with 95% CI) mean of state anxiety level of after chosen behavior of the scenario of being observed

A statistically significant main effect revealed that there was a significant effect of the alternative behaviors on participants' satisfaction levels in the scenario of being watched, $V = .156$, $F(2, 278) = 18.803$, $p < .05$, $\eta^2 = .119$. A main effect showed that there was a significant effect between anxiety groups by the scenario of being watched, $V = .064$, $F(1, 278) = 6.799$, $p < .05$, partial $\eta^2 = .024$. Thus, the interaction effect showed significant effects between the alternative behaviors and anxiety groups, $V =$

.010, $F(2, 278) = 4.983$, $p < .05$, partial $\eta^2 = .035$. Satisfaction levels were highest for SBs in both the HSA and LSA groups, but lowest for the LSA group and adaptive behaviors for the HSA group (Figure 10). Post hoc test conducted to determine the difference of mean satisfaction level after choosing alternative behavior between alternative behavior options (adaptive, avoidance, safety) in scenario of being observed. The Pairwise Comparisons results revealed that the mean difference between avoidance behavior and safety behavior is not statistically significant $p = 1.000$. Pairwise Comparisons results indicates that the significant main effect reflects a significant difference between adaptive behavior and avoidance behavior, $p < .05$ in which mean differences was highest ($MD = 1.912$). In addition, mean difference between safety behavior and adaptive behavior is statistically significant, $p < .05$.

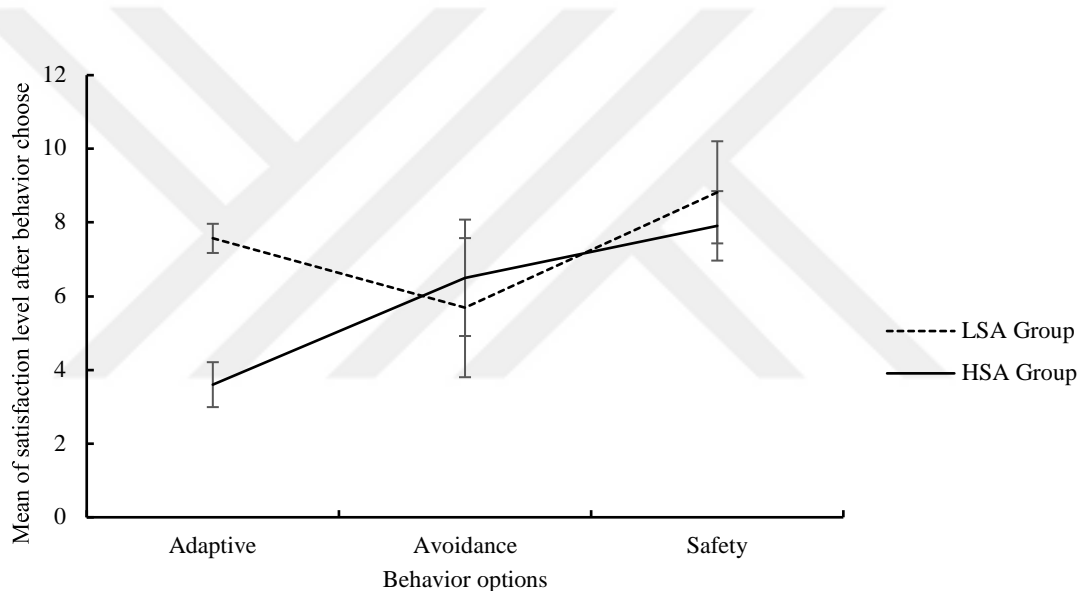


Figure 10. Mean (with 95% CI) mean of satisfaction level of after chosen behavior of the scenario of being observed

3.5. Analysis of Self-Focused Attention

The SFA scale items were applied to understand participants' focus on physical and arousal factors after coping with the scenario. Then, the Mauchly test was performed to determine whether the assumption of sphericity had been violated for the main effect of the items. As it turned out, the assumption of sphericity for the main effect of the items had been violated, meaning that the variance estimates could be affected by it, resulting in an inflated F-ratio. Therefore, as Field, A. (2013) suggested, the degrees of freedom were corrected based on the epsilon (ϵ)-value by either

Greenhouse-Geisser (if $\epsilon < .75$) or Huynh-Feldt estimates of sphericity (if $\epsilon > .75$).

A mixed design analysis was applied to a scenario-averaged mean of the SFA items. A main effect showed that the SFA items were significantly associated with the scenarios, $F(1.767, 498.262) = 214.00, p < .05$, partial $\eta^2 = .431$. Figure 11 shows that the performance scenario had the highest mean. The interaction of SFA and anxiety groups were not significantly related, $F(1.751, 493.668) = .731, p = .465$, partial $\eta^2 = .003$. An interaction effect showed that there was an interacting combined effect of anxiety group and SFA, $F(1.767, 498.262) = .31, p = .466$, partial $\eta^2 = .003$. For both the HSA and LSA groups, the highest mean level of SFA items was the scenario of performance, and the lowest mean level of SFA items was the scenario of being observed (Figure 11).

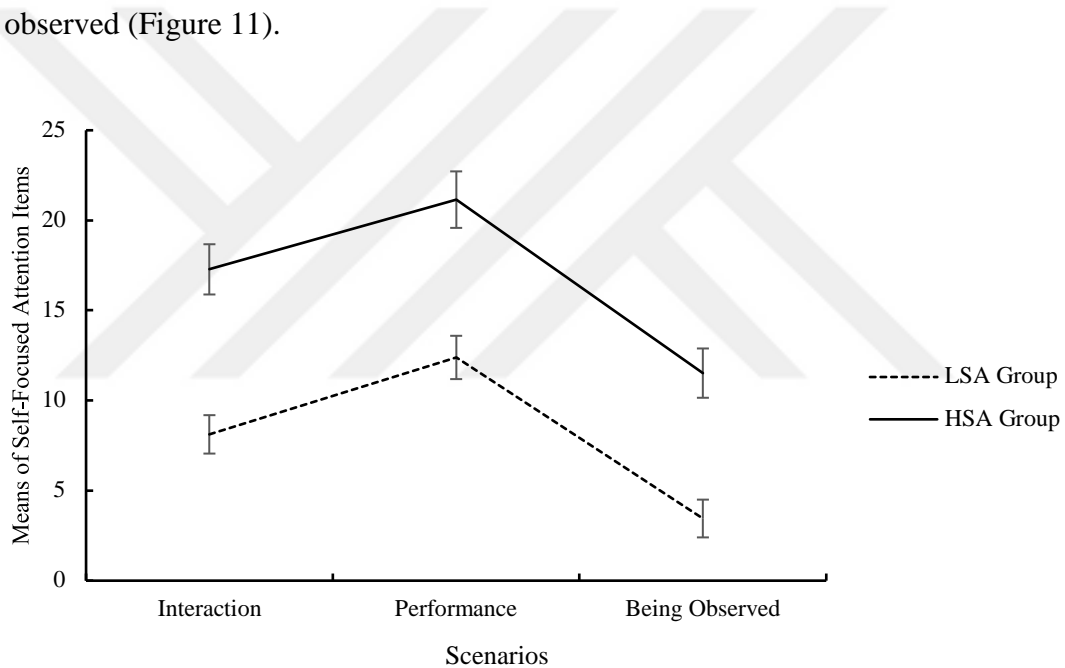


Figure 11. Mean (with 95% CI) mean of SFA items among scenarios

CHAPTER 4: DISCUSSION

The current study, based on Clark and Wells' (1995) cognitive model of SAD, aimed to examine differences in anxiety levels, self-focused attention, and safety behaviors between individuals with high and low social anxiety in different social situations using scenarios. The results of this study showed that individuals with HSA were generally more anxious than individuals with low social anxiety in all social situation scenarios. In addition, compared to individuals with low social anxiety, individuals with HSA showed a tendency to choose SB and avoidance behaviors rather than adaptive behaviors. In addition, individuals with HSA reported more SFA than individuals with low social anxiety. Moreover, individuals with HSA showed less anxiety after choosing SB, but they showed less satisfaction after choosing SB. In terms of scenarios, performance situations generally elicited more anxiety in participants than other situations. Moreover, participants who had chosen avoidance behaviors among the alternative behaviors were more anxious than the other participants (who had chosen SB or adaptive behaviors) and were less satisfied with their choice. The following section discusses the results of the present study in relation to the literature.

In relation to Hypothesis 1, it was expected that individuals with HSA would experience more anxiety than individuals with low social anxiety. Indeed, the results showed that HSA participants reported higher levels of anxiety than LSA in the interaction, performance, and being observed scenarios. These results are consistent with the literature (Stirling et al, 2006; Gilboa-Schechtman, et al, 1999; Horley et al, 2003; Mansell et al, 1999; Mansell et al, 2003; Musa et al, 2003; Ononaiye et al, 2002; Perowne and Mansell, 2002). Although the situations in which anxiety occurs may vary from person to person, the most important fear of people who suffer from anxiety in social settings is the fear of being negatively evaluated. These people place great importance on what other people think of them, and they think too much about the possibility of disapproval of their own behavior (Poulton and Andrews, 1996). For this reason, people are very attentive to their surroundings and selectively perceive any situation that might pose a social threat (Hofmann, 2007).

As for hypothesis 2, it was expected that individuals with HSA would exhibit more SFA than individuals with low social anxiety. The result of the current study supports the findings from the literature and shows that the mean score of SFA was higher among HSA participants than LSA participants. These findings are consistent with the literature (Alden et al., 1992; Burgio et al., 1986; Borckner and Hulton, 1978; Carver et al., 1983; Panayiotou and Vrana, 1998; Rich and Woolever, 1988). The Leigh et al. study also mentioned that participants with severe social anxiety reported SFA (Leigh et al., 2021). Although all scenarios influenced participants' SFA scores, it is important to note that the performance situation had the greatest influence on participants' SFA scores. Specifically, both groups, HSA and LSA, showed higher SFA scores in the performance scenario, which was more related to the evaluation of their appearance and behavior in the environment. The results indicate that concern about being physically evaluated is an important issue. In the study conducted by Spurr and Stopa (2002), it was assumed that individuals speaking about another person are not focused on themselves; yet, the task of public speaking was, in and of itself, likely to elicit significant levels of self-focus in these socially anxious participants (Spurr and Stopa, 2002). People with SAD use internal cues to evaluate their social performance. Much evidence suggests that people with social anxiety are more self-focused than people without social anxiety and that inducing self-focused attention increases anxiety (Morrison, 2013). Also in experimental studies it was found that individuals with HSA showed heightened SFA (Meral and Vriends, 2021; Vriends and Meral et al., 2017; Bögels and Mansell, 2004). Most people with social anxiety do not have sufficient social interaction skills and therefore have difficulty expressing themselves to the people with whom they wish to communicate (Turket al., 2005; Beidel et al., 1985).

Regarding hypothesis 3, it was expected that individuals with HSA would be much more likely to SB and the choice of avoidance behavior was also tested. Results showed that HSA participants generally tended to choose avoidance behaviors when considering scenarios, and SB. In contrast, LSA participants tended to choose adaptive behaviors rather than other options. The main factors contributing to the maintenance of social anxiety are the person's "avoidance" and "SBs." The study also mentioned that participants with HSA reported focusing on SBs out of habit (Leigh et al., 2021). Adults who are socially anxious use SBs in social situations more than

people who are not socially anxious, according to the studies (Leigh and Clark, 2018). In a social setting, a person who perceives a social danger uses various methods to get rid of the fear resulting from that perception of danger, reduce the fear, or hide it from other people. The behavior used to avoid these methods is to not enter the social environment at all or to move away from the current social environment. The result is that although the person gets rid of the fear, the fear persists in a similar situation because they cannot face the feared situation. In contrast, SB is the method used by the person to reduce the stress experienced without leaving the environment. Depending on the situation, the person's fears also differ. In some cases, it may be fears of losing control and in other cases, fears of not being able to form a proper sentence. Some of the behaviors that the person develops to avoid such undesirable situations include blinking to reduce communication with others, speaking in a soft tone and in a small amount, staying away from people, and leaning. (Beidel, Turner ve Dancu, 1985; Salkovskis, 1991; Hofmann, 2007; Rapee ve Heimberg, 1997; Wells ve ark., 1995; APA, 1980). Although Hirsch et al., (2004) and Plasencia et al., (2011) suggest that different forms of SBs may have different outcomes, these activities are thought to strengthen a person's ability to safely manage a risky social encounter.

In particular, SBs appear to be a hurdle in overcoming social anxiety because they tend to produce negative rather than positive outcomes. They tend to prevent approach behaviors, which, like expressive suppression, leads the person with whom the individual interacts with SA to have a worse opinion of him or her than when SBs are not used (Morrison and Heimberg, 2013). However, in another study by McManus et al., (2008), results showed that HSA groups reported using SB in a large number of situations than LSA groups (McManus et al., 2008). Kocovskis et al., 2015 examined a study that included four studies. The results of these four studies suggest that the trait measure of SBs is used by individuals with varying levels of social anxiety (Kocovskis et al., 2015).

In a study conducted by Hoffman (2017), individuals with SAD were randomly assigned to either a traditional cognitive behavioral therapy program or a cognitive behavioral therapy program that included instructions to avoid any SBs in that study. Individuals improved more rapidly when instructed to abandon their SBs (Hoffman, 2017).

In relation to Hypothesis 4, individuals with HSA were expected to be less likely to experience anxiety after choosing a SB than individuals with low social anxiety. All three scenarios were examined to see if the anxiety group would make a difference in anxiety levels depending on the behavior chosen (SB). The results of the interaction scenario showed that the anxiety level was highest after the behavior chosen for both the HSA and LSA groups for the avoidance behavior. For the HSA individuals, the anxiety level was closer after the behavior choice for adaptive behavior and SB; however, for the LSA group, the anxiety level was lowest after the decision for adaptive behavior. The performance outcome scenario showed that the anxiety level was highest for the HSA group and lowest for the LSA group after the alternative behavior choice, avoidance behavior. While the avoidance behavior was lowest in the LSA group, the anxiety state after choosing the alternative behavior was lowest in the HSA group when choosing the adaptive behavior. The scenario of the observed results was that the anxiety state after choosing the behavior was highest for adaptive behavior, the average for avoidance behavior, and lowest for SB for both HSA and LSA groups.

When people with social anxiety reduce their use of safety behaviors, they feel better about themselves and get more favorable feedback from others, showing the disconnect between the perceived function of safety behaviors and the actual effects (Piccirillo et al., 2015). For example, the person naturally does not feel anxiety because he shows adaptive behavior. But the fact that the anxiety continues after avoidance and safety behavior seems to explain why avoidance is a maintaining factor. Although the person escapes from the situation, the mental processes may continue towards the anxious situation, or because the person did not apply the avoidance or safety behavior, because the person avoided it, thoughts such as what people are thinking this time. While we expect that the anxiety will decrease after avoidance, the opposite actually happens. Again, this is proof that avoidance continues to be a problem. Avoidance behavior, in particular, is not only a symptom of anxiety, but also one of the most essential factors in the maintenance of anxiety and anxiety disorders (Rinck et al., 2010)

Finally, Hypothesis 5 also tested the expectation that individuals with HSA would be less satisfied after choosing SB. All three scenarios were examined to see if the

anxious group would make a difference in satisfaction levels depending on the behavior chosen as SB. The results of the Interaction scenario showed that satisfaction levels were highest for both the HSA and LSA groups after choosing the adaptive behavior, and lowest for the participants who chose SB. The performance outcomes scenario showed that satisfaction levels after behavior choice were highest for adaptive behaviors, the average for avoidance behaviors, and lowest for SB for both HSA and LSA groups. Finally, the observational scenario also showed that satisfaction levels after behavior choice were highest for adaptive behavior, the average for avoidance behavior, and lowest for SB for both HSA and LSA groups. In addition, a study conducted by McManus et al., (2008) results showed that the HSA group reported utilizing a bigger number of SBs, more frequently, in a greater number of situations. The high and low social anxiety groups both thought their SBs were beneficial. There was no significant relationship between HSA and LSA groups when it came to ratings of helpfulness and satisfaction after choosing SBs (McManus et al., 2008). It is important to note that socially highly anxious individuals use avoidance behaviors and SBs to manage their anxiety. Therefore, participants reported lower levels of anxiety after choosing these behaviors. However, they also reported higher levels of dissatisfaction. Avoiding situations or using SBs mean that the person does not actually face the anxiety-provoking situation. Therefore, no new learning can occur while the anxiety is maintained. Therefore, it is not surprising that participants are not satisfied with their avoidance and SBs.

Additionally, in the study, the results showed that participants' anxiety was highest at baseline anxiety than after the scenarios or alternative behavior choices. The reason could be that the participants were anxious to participate in a study without knowing the details.

4.1. General Discussion

In their cognitive model of SAD, Clark and Wells propose numerous maintaining mechanisms that prevent socially anxious individuals from benefiting from exposure to "objectively" non-threatening ordinary social situations. Maintenance of the disorder has been attributed to a number of factors, including SB and SFA (Kley et al., 2012). For example, it is thought that socially anxious individuals, when

confronted with a social or performance situation, turn inward and closely monitor themselves and their self-perceptions. This is ineffective because it prevents the person from learning how others are reacting to them. It also makes internal information such as body anxiety and mental images more visible, which the person might interpret as evidence of their negative thoughts. SBs are methods, many of which are mental operations, aimed at preventing or minimizing the occurrence of feared events. For example, a person may delay answering a question because he or she fears being thought ignorant if the answer is wrong. For a variety of reasons, SBs are considered useless. They keep the person from understanding that the feared consequence was unlikely and/or not catastrophic; they increase self-focus; they may increase feared symptoms; they may draw attention to feared symptoms; and they may also interfere with social interaction, e.g., not answering a question may be perceived as unfriendly, eliciting less friendly responses from others (Leigh et al., 2021). According to Hofmann (2007), another important factor in the development of social anxiety is self-perception. This is a mental representation that involves the evaluation of oneself, including past experiences (Markus, 1977). Self-perception influences beliefs, thoughts, and behaviors related to other people and the current situation (Kendall, 1983). Accordingly, a person with a negative self-perception anticipates a setback if he or she believes that he or she will not be able to conform to standards in a social setting, that the price for making a mistake will be high, and that he or she is not in sufficient control of his or her emotions and therefore feels anxiety (Hofmann, 2007). Concern about how a person will be judged based on their appearance and behavior in an environment where they may be seen by others affects the individual's anxiety level. Even a simple act such as walking down the street is perceived as being observed by others and can trigger fear of being evaluated. In this way, people constantly evaluate themselves by observing their facial expressions, behavior, and physical appearance, such as posture. However, this is a distorted evaluation that is anything but objective and contains negative beliefs about how people appear from the outside. In this way, the idea of humiliation and criticism toward people is exaggerated (Rapee and Heimberg, 1997). This negative self-focus is particularly evident when strangers are around (Kashdan et al., 2011). Because this triggers anxiety, people may prefer to be alone as long as they are not surrounded by people they trust and feel close to (Silvia et al., 2006).

Vertue (2003) notes that social anxiety is part of internal models that include beliefs about self and others. What determines perceptions of self and others depends on the caregivers' approach and whether needs were adequately met in childhood. When caregivers act in a caring and loving manner and meet the baby's needs in a timely manner, the baby develops positive beliefs that he or she is lovable and can receive love from others. Beliefs whose foundations are laid at this time can continue to develop throughout life and guide a person's thoughts and behaviors. People who have a positive image of themselves and others usually do not perceive negative events in social situations as a threat because they believe that other people think positively about them. Therefore, they are less likely to experience social anxiety. A baby whose needs are not met in a timely manner and who does not receive enough love has negative perceptions of himself and others. This situation manifests itself in the form of efforts to make a good impression in the eyes of people, fear of humiliation, and the need for constant recognition by people in the following years. (Beidel, Turner ve Dancu, 1985; Salkovskis, 1991; Hofmann, 2007; Rapee ve Heimberg, 1997; Wells ve ark., 1995; APA, 1980).

The lack of appropriate social skills can cause people to engage in behaviors that can be interpreted negatively, and as a result, other people stay away from them. At the same time, SBs performed to reduce anxiety may also elicit negative reactions from the people with whom they are communicating. Such situations make the person with social anxiety less attractive to be selected as a friend (Alden and Bieling, 1998). People with social anxiety are not only negative, they are also afraid of being evaluated positively. This is because being positively evaluated by others in society is perceived by anxious people as a series of uncontrollable situations that attract attention. For example, if one is in a good social position, one worries that one will not be able to maintain that position and will be disappointed (Weeks et al., 2008). For this reason, even a positive social interaction can elicit a negative reaction in people with social anxiety (Walsh, 2002). In fact, they find it difficult to express their positive feelings to others because they are afraid of disapproval and lack of response (Turk et al., 2005). Therefore, people cannot properly benefit from social opportunities; sometimes they even destroy the positive situation with their own will. Because they cannot enjoy positive social interactions and situations in this way, their quality of life is generally low (Kashdan et al., 2011).

Even though in this study social skills and self-image was not focus but still the findings shows that these are also important topics when it comes to SFA and SB that in the future studies maybe be considered to be add.

4.2. Limitations and Strengths of The Present Study

There are some limitations in this study. Due to the covid pandemic, it was not possible to contact the participants in person. Therefore, an online survey was conducted. Randomization of scenarios was not possible, which is another limitation of the study because a time effect cannot be excluded. Another limitation is that the study did not include a clinical sample. Based on the cutoff score of the Liebowitz scale, participants were divided into severely and weakly socially anxious participants. Therefore, generalization to SAD is limited. Nevertheless, it should be mentioned that the Liebowitz scale is a reliable and useful measure for discriminating clinically relevant social anxiety. The use of a semi-experimental design with three different social situations related to social anxiety is a strength of the current study. Considering that most studies rely on only one specific situation (e.g., giving a speech only) or only on self-reported questionnaires, this allowed us to compare differences in these social situations. Another strength is that participants had the option to choose adaptation, avoidance, or SB in relation to the situation, which can be considered more ecologically valid than using a general self-report questionnaire to assess SBs.

4.3. Suggestions for Further Studies

Based on the limitations of the current study, some suggestions for further studies can be listed. First, to observe the differences between people with SAD, it would be beneficial to include a clinical sample, subclinical socially anxious individuals, and a control group. Instead of using scenarios, participants can enter a real social situation, such as giving a presentation. However, considering external validity and the difficulty of creating realistic social situations, virtual reality could also be used. The use of virtual reality would also make it possible to assess psychophysiology, such as electrodermal activity or heart rate. Thus, it would be possible to examine differences between self-reported anxiety and objectively measured anxiety. In addition, it is important that this study be repeated with a clinical sample. On the other hand,

considering the importance of self-images and social skills mentioned in the general discussion, the present study can be expanded by including these factors. Thus, a better understanding of social anxiety can be provided. In addition to SFA and SB, concepts such as social skills and self-image can be added, and a more holistic and extensive research can be done.

4.3. Conclusion

Using three different scenarios of social situations (interaction, appearance, being observed), this study examined the relationship between SFA and SBs in people with high and low social anxiety. According to the DSM-V, social events that trigger anxiety are divided into three categories: first, appearing in front of others (e.g., a presentation); second, being seen (e.g., eating, drinking, or entering a restaurant); and third, social interactions (e.g., meeting friends). Clark and Wells (1995) proposed a cognitive model that explains how SAD develops and persists. According to this paradigm, people with social anxiety develop unrealistic expectations of social situations when they are involved in them. As a result, the socially anxious person perceives this social environment as a threat. While the person wants to make a good first impression, they also see themselves as inadequate. Furthermore, with the impact of SFA, the socially anxious person focuses on his or her internal processes (e.g., anxiety symptoms such as heartbeat, negative self-images) rather than gathering information from the outside to learn how he or she is viewed by others. In addition, anxious individuals engage in SBs to avoid fulfilling negative expectations in social situations and to display or reduce anxiety symptoms. In this study, data were submitted online via Google Forms to a total of 285 participants in two subgroups of highly socially anxious (HSA=105) and low socially anxious (LSA= 179) participants. Our hypothesis was tested using GLM Repeated Measure, MANOVA, and chi-square analysis.

According to the results of this study, HSA participants showed more anxiety than LSA participants in all three scenarios. In addition, the HSA group was more prone to self-focused attention than the LSA group. In addition, the HSA group tended to engage more in safety and avoidance behaviors than the LSA group. Nevertheless, the choice of avoidance or SB did not affect the participants' satisfaction level after

choosing the behavior. The results of Schreiber's (2015) study suggest that SBs and SFA are causally related to the maintenance of SAD, as the manipulation of both reduces social anxiety. McManus et al., (2009) also found that SFA and SB experiments are associated with lower social anxiety in the long term. In summary, our results once again highlight the importance of self-focused attention and safety behaviors in social anxiety.



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