The Evolutionary Psychological Perspective on Social Anxiety Disorder and Its Underlying Mechanism

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An evolutionary view of social anxiety disorder in its original occurrence of function and adaptive design helps us understand why SAD (social anxiety disorder) exists in the first place. In this paper, we found social anxiety can be a useful strategy to acquire better resources and maintain harmony in interpersonal relationships in ancestral environments. This finding helps us reveal how the mismatch between the ancestral and modern world may cause the overreaction we see in SAD in contemporary contexts. In addition, alcohol seems to be a short-term solution to ease the negative impact of SAD, but its long-term effectiveness requires further research. The paper also introduces compassion therapy to encourage patients to rekindle their passion for themselves by connecting with a friendly social environment. To better understand SAD, we encouraged future research to focus on rebuilding inner values and group relationships.

Keywords: social anxiety disorder, evolutionary psychology, shame social comparison

Introduction

As one of the most common mental distress feelings, anxiety has been used in social media and in-person contexts to indicate a sense of stress and discomfort. Indeed, anxiety is "an emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure." (*Apa | Anxiety*, n.d.). However, such an explanation can misguide readers in understanding anxiety and its important function in protecting us. From an evolutionary psychological perspective, anxiety was considered an adaptive strategy that protected people from potentially dangerous events (Scott, 2013). For example, the fear of spiders and snakes could be explained as an alarm that prevents people from being harmed by these threats. Therefore, anxiety should play a critical role that evolved from the ancestral period to promote the likelihood of survival but become maladjustment in the contemporary context. In other words, the underlying mechanism of anxiety may initially evolve as a useful strategy to counter unexpected but visible conditions, such as the attack from dangerous animals in the short term but become inadaptable in modern society where stressors often come from invisible and long-term concerns.

To further apply the evolutionary perspective toward anxiety, we specific our focus on social anxiety disorder (SAD), which was defined as "a persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or possible scrutiny by others." (American Psychiatric Association, 2022). An excessive concern of being disgraced and debased by the assessment of others in social contexts is the

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major symptom shown in people diagnosed with SAD. However, is it possible that the original cause of SAD might begin with good intentions that benefit our ancestors from the ancient period to survive? To answer this question, we examined the potential function and potential cause of SAD from an evolutionary psychological perspective by reviewing related literature and theory within the field.

The Mechanism of Social Anxiety Disorder (SAD)

To exclude oneself from social groups is profitless, even harmful to survival: staying within a group has outweighed the benefit of being alone in the wild in which the gathering hunting, knowledge communication, and health support increase the likelihood of reproduction and survival. Those benefits are still powerful in a contemporary context where a strong network offers great convenience when dealing with an interpersonal relationship such as a team project or job promotion. The original occurrence of social anxiety might have a beneficial impact on maintaining a cohesive membership within the social group (Scott, 2013). Specifically, social anxiety forced people to find common ground in the arguments due to the consideration of group benefits. Excessive competition with no compromise would break a group into pieces. Social anxiety might suppress individuals from undue arguments and mollify the likelihood of direct conflict, maintain the group intact. Gilboa-Schechtman, Shachar, and Helpman (2014) further introduced the idea of a social rank biobehavioral system (SRBS) which manages competitive interactions to gain better resources and social status, and the affiliation biobehavioral system (ABS), which manages submissive interactions to promote a sense of belonging and reputation (Gilboa-Schechtman et al., 2014). The above systems revealed two approaches for individual to earn desirable outcome through competition or cooperation within a group. From the individual perspective, social anxiety encourages individuals to pursue wishful goals through competition by showing outstanding strength and power. However, social anxiety also warns people not to behave too competitively to become potential threats that has little benefit for creating or maintaining a harmonious relationship with others. A good reputation for collaboration is also a valuable resource and method to achieve the goal. Thus, when people cannot manage their strategies properly in social contexts to acquire targets, they may experience severe discomfort and intention to avoid the above conditions. Gilbert (2001) also found a similar result: an individual might suffer from interference by using the wrong strategy to deal with the social condition. People who were supposed to adopt more competitive strategies in the contexts such as public speaking improperly use submissive behavior may have a detrimental impact on their performances, correlating with more anxious feelings toward self-confidence and efficacy. The fear of losing a good reputation from others further separates people from their social context. In sum, social anxiety was designed to be temporary, either motivating a person to reach for higher social status or to accept the currently inferior condition in return for the opportunity of collaboration (Scott, 2013; American Psychiatric Association, 2022; Gilboa-Schechtman et al., 2014). However, people stuck in between will experience prolonged anxiety by successfully executing either strategy.

The Relationship Between SAD and Shame

Shame is another adaptive strategy closely related to social anxiety since individuals with SAD often express an improper sense of shame for being devalued by others. However, shame is more than an unpleasant emotion: it is an effective strategy against the devaluation often elicited by negative evaluations from others (Sznycer et al., 2016). Shame plays an important role in making the best choice out of the bad condition by suppressing the negative information from spreading to others through a series of submissive behaviors such as appeasement

behavior and accepting subordination (Sznycer et al., 2016). In other words, shame might help individuals who were tortured by social anxiety caused by dissatisfaction with existing situations to maintain their relationships with others, reducing the possibility of being excluded from the group. Convergently, shame, instead of feeling bad for self-value, is highly correlated with the possibility of negative information spreading within a social group (Robertson et al., 2018). From an evolutionary perspective, it is an enormous fitness cost to lose support from one's group. Thus, to repair and deter the potential damage caused by devaluation by others, individuals would sacrifice short-term benefits, even doing unpleasant things, to restore the relationship with the group (Robertson et al., 2018). The overly concern of their own social reputations and ranks also played a vital role that motivated people to minimize the impact of shameful events. However, people with SAD might suffer the overwhelming shame elicited by the negative events, not themselves, such as devaluation spreading in social contexts, leading to discomfort and inability to implement healthy behaviors.

Social Comparison and SAD

Suppose we shift our view into contemporary society. Social anxiety disorder can be described as a mismatch between the modern environment and the environment of evolutionary adaptedness (EEA) or an anachronistic strategy that our human ancestors evolved but is unsuitable for the modern social context. The increased complexity of social inter-action demands more energy and attention to assess any cues that may affect our social status in our many diverse and concurrent social groups. Frequent comparison helps individuals to locate their social status within a group as average or not, and people would correspond to their social target based on the comparative result (Gerber, Wheeler, & Suls, 2018). The social comparison was applied to reduce the anxious feeling caused by uncertainty. However, to apply overdue comparisons in the social context required enormous attention and energy that can dysfunction the capability on regulating the pressure and anxious symptoms. Excessive social comparison harms self-identity and can result in overacting the competitive system that was supposed to protect the self from social exclusion (Ellemers, Spears, & Doosje, 2002). For example, people bounding their self-identity deeply to the superior social status have difficulty dealing with statements that might challenge their authority. On the opposite, people would avoid any comparison circumstances that might elicit devaluation of self-identity. Also, people with a high level of social comparison expressed more unstable perceptions of self-image and self-esteem (Vogel et al., 2015). Constant comparison becomes essential to ensure that the expectation of social image stays within acceptable fluctuation. The issue came when people failed to adjust their perception of self through the result of social comparison. We proposed that people with an overwhelming need to be superior to others and unstable self-recognition might lead to excessive concern about decreasing social rank, which disrupted their ability to balance the impact of the stressors.

Treatment Implication

Several suggestions have been made regarding the treatment of SAD. Teaching patients that what they suffered was not an idiosyncratic problem with them but rather an evolved strategy that helped our ancestors solve adaptive problems might provide some relief by normalizing the experience (Scott, 2013). Evidence shows that alcohol reduces the subjective discomfort caused by social anxiety in unfamiliar social circumstances (Bulley et al., 2016). By suppressing the hyperarousal state caused by social anxiety, the self-perception of social anxiety might also be reduced, resulting in a more relaxed attitude toward social contexts while focusing less on inner abstract anxiety (Bulley et al., 2016). The distracted individual from stressors can have a conducive effect on

relieving anxiety. Future research can focus on the long-term relationship between alcohol and social anxiety to examine if alcohol can truly be beneficial or a temporary salve. The implication of distraction can also apply to exercise and mindfulness training that may reveal some beneficial effects on SAD. In addition, instead of focusing on changing patient's avoidance behavior, such as eye contact and physical touch, Weeks (2014) introduced compassion therapy that appears to effectively counter self-criticism and shame by helping patients to build or rebuild collaborative behavior, helping them gain the trust of others, increasing their self-esteem and confidence. Future research can focus on the effectiveness of therapy that helped patients to reconstruct the meaning of the social circle. Through positive feedback on human behavior from the social environment, patients might regain the prior ability to love themselves.

Conclusion

One of the main goals of this paper is to illustrate the underlying mechanism and reasons contributing to SAD. We examined that anxiety, as a primitive defensive mechanism, showed important functions in helping people to survive throughout human history. As one of the branches of anxiety, social anxiety plays a significant role in mediating the united group by developing a competitive and cooperative strategy. It helps people to find a balance between individual needs and group profits. However, people who fail to correspond their strategy in various social situations might induce excessive anxiety about the negative impact of results that further damage their profits, such as social reputation. Shame as a protective mechanism motivated people to make compensation for such negative events, minimizing the deleterious impact and threats to the lowest. Nevertheless, people with SAD may exaggerate the impacts, causing the inability to make compensated behaviors. In addition, although social comparison allows individuals to acquire needed information, the intemperate use of social comparison can result in inappropriate information processing, eliciting even more anxious feelings and concern about the social state. In the end, we discussed the temporary distract effect of alcohol on anxious feeling and compassion therapy that help individual with SAD rebuild a healthy connection with others. We encouraged future studies to concentrate on effective strategies that can be applied to counter the negative influence of SAD.

References

Apa | Anxiety. (n.d.). Retrieved September 19, 2022 from https://www.apa.org/topics/anx iety/

Scott, J. (2013). An evolutionary perspective on anxiety and anxiety disorders. *New Insights into Anxiety Disorders*. Rijeka: InTech. Retrieved from https://doi.org/10.5772/52902

American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorder* (5th ed., text rev.). Retrieved from https://doi.org/10.1176/appi.books.9780890425787

Gilboa-Schechtman, E., Shachar, I., & Helpman, L. (2014). Evolutionary perspective on social anxiety. In S. G. Hofmann & P. M. DiBartolo (Eds.), *Social anxiety: Clinical, developmental, and social perspectives* (pp. 599-622). New York: Elsevier Academic Press. Retrieved from https://doi.org/10.1016/b978-0-12-394427-6.00021-2

Gilbert, P. (2001). Evolution and social anxiety. *Psychiatric Clinics of North America, 24*(4), 723-751. Retrieved from https://doi.org/10.1016/s0193-953x(05)70260-4

Sznycer, D., Tooby, J., Cosmides, L., Porat, R., Shalvi, S., & Halperin, E. (2016). Shame closely tracks the threat of devaluation by others, even across cultures. *Proceedings of the National Academy of Sciences, 113*(10), 2625-2630. Retrieved from https://doi.org/10.1073/pnas.151469 9113

Robertson, T. E., Sznycer, D., Delton, A. W., Tooby, J., & Cosmides, L. (2018). The true trigger of shame: Social devaluation is sufficient, wrongdoing is unnecessary. *Evolution and Human Behavior, 39*(5), 566-573. Retrieved from https://doi.org/10.1016/j.evolhumbehav.2018.05.010

Gerber, J. P., Wheeler, L., & Suls, J. (2018). A social comparison theory meta-analysis 60+ years on. *Psychological Bulletin, 144*(2), 177-197. Retrieved from https://doi.org/10.1037/bul0000127

Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology, 53*(1), 161-186. Retrieved from https://doi.org/10.1146/annurev.psych.53.100901.135228

Vogel, E. A., Rose, J. P., Okdie, B. M., Eckles, K., & Franz, B. (2015). Who compares and despairs? The effect of social comparison orientation on social media use and its out- comes. *Personality and Individual Differences, 86*, 249-256. Retrieved from https://doi.org/10.1016/j.paid. 2015.06.026

Bulley, A., Miloyan, B., Brilot, B., Gullo, M. J., & Suddendorf, T. (2016). An evolutionary perspective on the co-occurrence of social anxiety disorder and alcohol use disorder. *Journal of Affective Disorders, 196*, 62-70. Retrieved from https://doi.org/10.1016/j.jad.2016.02.028

Weeks, J. W. (2014). *The Wiley Blackwell handbook of social anxiety disorder*. New York: John Wiley & Sons, Ltd.