



Current Theories and Models of Scholar Anxiety

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Abstract

School anxiety can have negative effects on the development of primary school students. Conceptually, school anxiety refers to disruptive thinking patterns and physiological behaviours that cause students to worry about underachievement. Theories and explanatory models of school anxiety provide a framework for understanding how it manifests itself and for identifying ways to reduce anxiety and optimize students' ability to learn. Anxiety is a multidimensional construct that includes fear, uncertainty, hesitation, entering into a tension of searching for a way out of a certain situation, imbued with the expectation of a feeling of safety and well-being. Discovering the causes of anxiety and reducing it becomes a basic task for both teachers and parents. Reducing school anxiety will significantly reduce discomfort and help improve learning ability.

Key words: Anxiety; multidimensional model; primary school

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1. Introduction

School anxiety can cause harm across the entire school context, from students, teachers, to family members, the community, and society as a whole (Gonzaga et al., 2022). Students with high levels of school anxiety suffer not only developmentally psychologically but also developmentally physically. School anxiety causes internalizing behaviours in students, such as depression and physical discomfort, somatized as headaches, stomach aches, muscle aches, etc. (Rask, 2019).

A number of researchers have identified a temperamental style in children that overlaps with what might be termed 'an anxious temperament'. One of the most widely accepted behavioural styles has been described by Jerome Kagan, who described a behavioural style that he termed "behavioural inhibition." Children with this temperament react by withdrawing and fearful when confronted with new or unusual events. Kagan and his colleagues found this behaviour style in younger children and evaluated them over several years. Within a few months studies have shown that a large proportion of children who are investigated as being on the spectrum of behavioural inhibition in early years continue to be found in later years. This study suggests that behavioural inhibition is a temperamental or personality style. Because behavioural inhibition may be present at very young ages does not mean that it is entirely genetically determined. Even in children as young as a few months, environmental factors may be important. Rapee et al. (2009) demonstrated that much of the variation in behavioural inhibition is genetically determined. The relationship between anxious temperament and anxiety disorders in children has been realized in several ways. Children who were found at an early age to have high levels of behavioural inhibition, and who were followed for several years, were more likely to develop an anxiety disorder compared to children who were not behaviourally inhibited.

Elementary school students have also been found to experience academic anxiety (Gullone et al., 2001). School anxiety is a complex problem that involves the child's fear of something specific at school, either related to the educational process or of a social nature. This manifests itself through increased restlessness and agitation in school activities, through the expectation of negative evaluation from teachers and peers, through lack of confidence in oneself, in the correctness of one's own behavior and decisions, through the expectation of disapproval and through feelings of inferiority. School-age students exhibited the highest levels of anxiety related to separation from parents, the end of routines they had at home, and fear of interacting with strangers. At school age, children experience more social fears related to school performance, having friends and generally being 'accepted' (Elbedour et al., 1997). They register high levels of fear related to failing tests, having to give an oral report, not having friends, not dressing 'correctly', not being a team player, etc. (King et al., 1993). In primary school students, school anxiety is related to the pressure of educational requirements, the sometimes overloaded schedule, the fear of evaluation and appreciation, the desire to meet the expectations of the teacher and parents, and the rivalry between classmates. Both trait and state anxiety interfere with learning abilities and school performance (Woodward & Fergusson, 2001). If a student is experiencing high levels of anxiety at school, then they will not have the necessary conditions to learn properly. This phenomenon, in the school environment, has a negative impact in terms of diminishing interest in school activities. The need for a complex and in-depth study of school anxiety is very important, both for discovering the essence of this phenomenon and for further understanding the particularities of the development of the child's emotional sphere and personality.

2. The concept of school anxiety

Anxiety is defined by specialists as a diffuse fear for no well-defined reasons. The subject is in a constant state of tension, feeling constantly threatened. They are very nervous and often do not realize what they are frightened of. According to Otten (1991), school anxiety refers to

"disruptive thought patterns and physiological responses and behaviours that cause worry about the possibility of unacceptably poor performance on an academic task". Figure 1 shows the relationship between the defining elements of school anxiety.



Figure 1. Relationship between the characteristic elements of school anxiety

In the school environment, anxiety is associated with poor performance, including impaired learning and performance in information recall and intellectual appreciation (Segool, 2009). Anxiety and anguish are by definition at the pole without specific reason. School anxiety is a complex problem that involves the child's fear of something specific at school, either related to the educational process or of a social nature. There are two types of school phobia (Pânișoară, 2011): the first is related to separation anxiety and generally occurs in children up to 8 years old, and the second type affects children over eight years old and revolves around the social dimension of school, and can be considered social phobia.

In the opinion of specialists, they differ either in intensity (anguish would be a form of major anxiety) or in appearance Anxiety is somatic, with obvious vegetative symptoms, whereas anxiety is primarily psychological; it is sometimes thought that shyness, anxiety and embarrassment are also related to anxiety. Shyness and embarrassment may also be accompanied by vegetative signs: flushing, trembling, sweating. Anxiety and anxiety are almost synonymous, anguish being a form of major anxiety and anxiety a form of minor anxiety (Cosnier, 2007, pp. 130-131).

There are very close boundaries between anxiety and angst. Although both refer to the uncomfortable sensation of fear, discomfort, within angst, somatic disorders predominate, while we can speak of anxiety rather when the restlessness is experienced psychologically. N. Sillamy (1996) defined angst as a feeling of profound discomfort, characterized by extreme restlessness, an irrational fear, accompanied, most of the time, by neurovegetative changes, comparable to those observed in emotional shocks (palpitations, tremors, profuse sweating, blurred vision, etc.), which probably resulted in the use of the term as a synonym for anxiety.

Phobia (the term comes from the Greek "phobos" meaning flight that can cause fear and panic in its enemies) is a persistent fear of an object, thought or situation that does not normally warrant fear. The subject realizes that his/her fear is ridiculous, meaningless, fights against it but cannot overcome it. Fear is a negative affective state that arises when the subject glimpses an imminent danger. "Normal fear is an emotional reaction with an adaptive character, because in the event of a threat, it mobilizes us to take certain actions to save our life" (Holdevici, 2011). Such a mechanism also works in the case of psychological fears, as the subject is prompted to take self-protective actions. Usually, irrational fears or fears arise when the person feels and behaves as if there is a major danger of minimal, or even no danger. Panic denotes a sudden rush and attack of terror. Some psychologists are of the opinion that anxiety, phobias and panic attacks represent irrational fears (Holdevici, 2011, p. 26). Anguish is a state of "fear" without an object, and anxiety and restlessness differ from it only in lower intensity. Panic is a crisis of anguish, terror and fright are states of extreme fear. Whereas the temporal states can be distributed on an axis that runs from a pole of states with a definite object to a pole of states without an object, with intermediate situations in between.

3. Theories and models of anxiety

Biological theories

To elucidate the problem of causation requires a theory of how traits, states and behaviour may interact with each other. One wants to find out whether states act as cues to underlying biological or cognitive processes, which are the main causal factors. For example, anxiety states could be an index of brain processes initiated by threat signals (Gray, 1991) or of information processing that is associated with threat anticipation. Thus the information processing hypothesis is better supported by empirical data than by physiological theories. An accepted theory would clarify how traits influence states and behaviours in terms of specific mechanisms rather than merely describing a probabilistic trait-state relationship without any concept of its origins. (Matthews, Deary, Whiteman, 2009, p. 104).

In other words, the theories in this area are quite diversified and have aroused concern for both psychobiological and cognitive explanations. Traits might act by influencing how the brain reacts to stimuli. For example, Eysenck (1967) argued that extraversion- introversion is related to the excitatory capacity of the reticular formation and the cerebral cortex, so that introverts tend to have a more highly excited cortex than extraverts. It is possible that individual differences in cortical stimulation are responsible for the emotional and behavioural differences between extraverts and introverts. It is noted that modern levels of excitement favour optimal mood, so we might expect extraverts to feel happy in exciting environments, whereas introverts would feel best in low excitement.

Another biological theory (Pickering et al., 1997) distinguishes several brain systems, including a Behavioural Activation System (BAS), which controls sensitivity to reward stimuli, and a Behavioural Inhibition System (BIS), which controls sensitivity to punishment stimuli. Positive emotional states could be influenced by the BAS. As we will see below, it can be more easily activated in extraverts than in introverts, so introverts tend to be more cheerful and exuberant than introverts. Going by the state-trait principle, these differences in emotional state could be responsible for the behavioural differences between extraverts and introverts. The BIS system activity could be understood as negative emotion. Anxiety and neuroticism, as traits, were united by a higher sensitivity of the BIS system, so that these traits make the person prone to negative affect, such as anxiety and depression.

From the neuroscientists point of view, traits correspond to brain systems whose states may not be directly observable: mood illustrates the unconscious operations of subcortical structures. So, we cannot use a mood questionnaire in the desire to assess the activity of these systems. Therefore, we may need to use psychophysiological cues of mood, or we may be able to infer changes in mood from experimental data although both ways of dealing with the topic raise methodological problems (Matthews & Gilliland, 1999). In other words, the general state-feature principle applies. The traits could be related to the neural mechanism biases that control brain arousal activity and motivation systems. Upon activation of these systems, we find two convergent effects: first, a change in subjective state and second, a change in behaviour. For example, in Gray's (1991) theory of anxiety, BIS activity leads both to increased anxiety and to threat-oriented behaviours. Thus, subjective state change is not directly related to behavioural change: both are products of the same basic brain system (Matthews et al., 2009). Another explanation relates to the cognitive area: states might illustrate how a person evaluates an external situation and acts on it. The full version of Spielberger's (1966) model of anxiety as a state-trait was one of the first cognitive models. The central causal construct is the person's cognitive appraisal of the situation, which independently influences both the anxiety state and defence mechanisms for threat anticipation, which we might conceptualize in today's terms as the problem-solving reaction (Zeidner & Endler, 1996). In this model, trait anxiety is associated with tendencies to appraise situations as threatening, perhaps leading to an exaggerated sense of

danger. A large number of the emotion studies support the hypothesis that affect is closely related to situation appraisals (Scherer, 2001).

Contemporary research related to affect and cognition frequently refers to the transactional model of emotions and stress developed by Lazarus (1999). Lazarus believes that the person and the external environment are in a continuous dynamic interaction, and emotions show the relationship between the person and the environment. Thus, dispositions might reflect not only how the environment influences the person, but also the person's attempts to deal with demands and opportunities by acting on the environment (recommended by problem-solving strategies). As we will see investigating appraisal and problem solving as possible mediating factors has been useful in studying both mood and stress. However, transactional theory differs from trait theory in that emotion sometimes seems to illustrate a degree of holistic integration of environmental and person-related factors that prevents these component parts from being isolated. The most useful conclusion in the context of traits is that there may be a link between trait and environmental factors. People's strivings to solve problems influence their exposure to environments that might affect their dispositions. The final point about the theory is that psychobiological and cognitive explanations of traits and states are not necessarily incompatible (Corr, 2011). According to Matthews (2000), there are three levels of description that might be useful: the biological, the cognitive-architectural and the (self-)cognition levels. These levels could apply to the effects of personality on mood. First, dispositions could illustrate individual differences in terms of activation of brain systems as in Gray's (1991) theory of personality. Second, dispositions could be related to specific appraisals (i.e. information processing) as in appraisal theory: for example, coding a stimulus as a direct threat leads to feelings of anxiety. Third, as in transactional theory, dispositions may show a high-level personal meaning that illustrates personal contextual factors and personal beliefs (self-knowledge). The three levels of explanation could clarify sides of personality and mood (Matthews et al., 2009, p. 108).

Behavioral approach to anxiety

Watson (2000) defines anxiety as a conditioned fear reaction, an acquired tendency. According to this theory, anxiety is a conditioned response to specific environmental stimuli or a response to imitate the anxious reactions of parents (social learning theory). Children learn behaviors as a result of what they are modeled and through the instructions they are given. Based on observing those around them in the interaction of positive and negative reinforcement, children learn how to behave as expected (Bandura & McClelland, 1977). The application of social learning theory to the development of school anxiety is evidenced by how parents engage in direct instruction and modeling strategies, both intentionally and unintentionally, in shaping their child's levels of academic anxiety. Educational interventions are based on exercises aimed at destroying the links created between stimuli and the anxious reaction.

The Gestalt approach to anxiety

From the Gestalt perspective, anxiety is approached from two perspectives. K. Goldstein (1939) presents anxiety as a subjective state of the organism in a catastrophic situation. This state occurs when the personality feels a threat to its initial values. On the one hand, anxiety is described as a consequence of an unresolved situation. Every experience remains incomplete until it is brought to a conclusion. Most people feel oppressed by unresolved situations. Although a person can endure a large number of unresolved experiences, these unfinished developments still seek fulfillment and when they become strong enough, the person in question is overcome by a lack of concentration, anxiety, obsessive behavior, exaggerated attention, oppressive energy and useless diligence. On the other hand, anxiety is defined as a reaction to a danger.

Cognitive and humanistic approach to anxiety

Cognitive and humanistic theories are of great importance because they go beyond behavioral theory to explain anxiety by introducing the cognitive pattern model. Anxiety is the awareness that the event that a person encounters is outside the range of applicability of the personal system of cognitive constructs. Anxiety is the result of the awareness that these existing

constructs cannot be used to predict all the events that a person encounters. According to R. May (2015), anxiety is an integral part of human existence that creates tension and the feeling of risk. Ancient people felt anxiety when their lives were in danger, while contemporary man experiences anxiety in situations that pose the risk of losing self-esteem, rejection by his group, and failure in competitions with other people. Anxiety is a state in which a person resists the realization of his or her emerging possibilities, resists personal growth. Therefore, anxiety constitutes a complex system of cognitive, physiological and behavioral reactions, which is activated when anticipated events or circumstances are considered particularly aversive, because they are perceived as unpredictable, uncontrollable events that may threaten an individual's vital interests.

The perspective of personality psychology

Approaching anxiety from the perspective of personality psychology is very important because it highlights the value of personality traits, reactions to stress, and states of anxiety. Anxiety as a state is a transient response to a stressful situation, a response that involves feelings of tension, fear, and various physiological changes (Spielberger, 1989). State anxiety is the concrete or habitual emotional level, characterized by the feeling of apprehension and tension, associated with the activation of the organism and which has a negative effect on behavior. Trait anxiety is a stable personality characteristic that predisposes a person to a state of anxiety when under the influence of stress. It is the predisposition to perceive certain stimuli in the environment as threatening or non-threatening and to respond to them with different levels of state anxiety.

4. The multidimensional model of scholar anxiety

Anxiety developed in school, through judgments manifested during an affective sensitivity or vulnerability, can inhibit the desire to express the assimilated knowledge. Also, the school system through the demands of the programs, the quality of the professionalism of the teaching staff or the way of achieving the educational-formative objectives, depending on the way of applying them, as factors of school success, can cause school anxiety, in the sense that the harsh, cold implementation of the educational-formative objectives or the severe teaching-evaluation methods can determine the appearance of social anxiety in some students. Factors that can negatively influence the student and lead to school failure are under- and overestimation of the student's real capabilities, disagreement over the motivations of the student's behavior, and individual conflicts within the class.

The comprehensive dimensional model of a particular aspect of state, such as mood or subjective arousal, was devised by researchers who issued state measurement instruments that had specific purposes of testing a single dimension, such as anxiety. Experience at the psychological level is delineated into three domains: affect, cognition, and motivation (Hilgard, 1980). Much research has been directed towards affect, in other words, moods and states of subjective arousal. Unlike emotions, dispositions differ from emotions in that they are not tied to specific objects or events, so they can continue in the absence of specific triggering events.

While the structure of emotions can be complex, mood has relatively few fundamental dimensions. People no doubt have little awareness of their own moods, despite the fact that mood checklists progress, usually the most obvious affective state characteristics such as happiness and tense, not the more subtle emotions. State measures might be less susceptible to introspection failure than trait measures, because they require an unmediated assessment of conscious state, not accessibility to critical beliefs and behaviours in long-term memory. Whereas, autonomic reactivity may be strongly related to the degree of effort involved in mood regulation, rather than to the mood itself (Gendolla & Krüsken, 2001). In the following, the main dimensional models of mood are presented. The first set of models admits only two dimensions, while the second set of models is based on three dimensions.

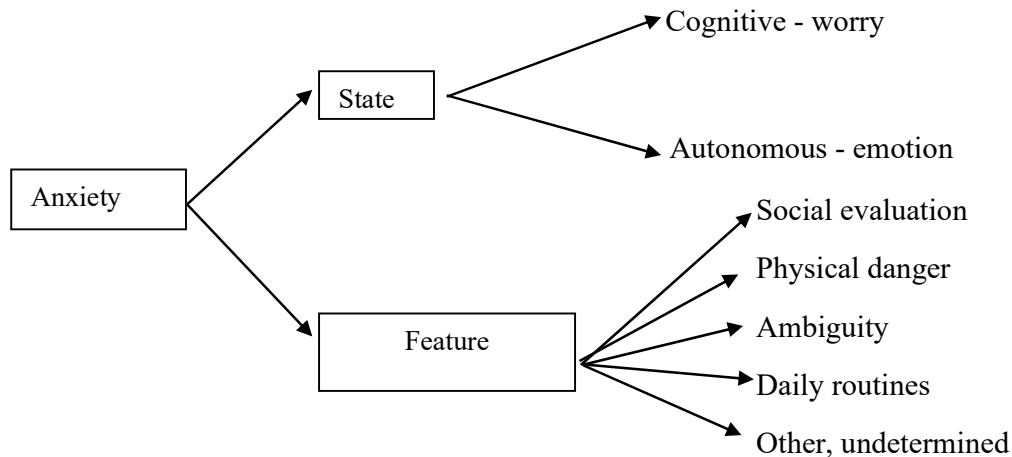
The two-dimensional model of dispositions resembling to some extent the one above was proposed by Watson (2000). The objective was to explore the full range of dispositions, including

those that have no particular significance at high or low levels of arousal. Their research based on factor analysis identified two orthogonal dimensions, referred to as positive affect (positive affect - PA) and negative affect (negative affect - NA), measured on the Positive and Negative Affect Scale (Watson, Clark & Carey, 1988). PA (similar to energetic arousal) contrasts feelings of elation with apathy and depression, whereas NA (similar to tense arousal) contrasts negative emotions such as anxiety and anger with states of contentment and serenity. There is another type of two-dimensional model building, proposed by Russell and Barrett (1999). This model, elicits the new dimensions of arousal and pleasantness.

The three-dimensional model

In Wundt's (1897) view, this model shows that affect varies along three separate dimensions: pleasure-unpleasure, tension-relaxation, and arousal-calm. As Schimmack and Grob (2000, studies based on factor analysis in the UK, Scandinavia and Germany have found three dimensions that are quite close to those proposed by Wundt. For example, Matthew, Jones and Chamberlain (1990) argued that instead of linking feelings of happiness and depression to the dimensions of arousal that appear in Thayer, a third dimension should be distinguished, welded to the general, pleasantness of dispositions. The three-dimensional model may also be useful in clarifying the question of whether positive and negative affect can coexist. It recognizes pairs of opposite states that are mutually inappropriate (e.g., pleasant and sad moods) (Matthews et al., 2009, p. 112).

Related to the many dimensions of anxiety is the research offered by Endler and Kocovski (2001). In contrast to the single dimensions of anxiety as trait and state that Spielberger (1966) presents, Endler considers both aspects of anxiety to be multidimensional. Endler et al. (1991) recognized four distinct aspects of anxiety as a trait, related to social appraisal-induced threat, physical danger, equivocal situations, and daily routines, along with two aspects of state anxiety, cognitive - worry and autonomous - emotion. The two- and three-dimensional patterns account for much of the variation in mood states and present a parsimonious overall pattern that lends itself to direct assessment. In other words, there is room for other hierarchical models to differentiate those narrowly defined primary affective constructs from broad, secondary constructs such as positive and negative affect. Subsequently these attempts have been stopped by the lack of skill in the search for affective constructs; in other words, those performing factor analysis have frequently been very careless in the search for other temporal states than the elementary mood descriptors. In Figure 2, there is presented a multidimensional state-trait model of anxiety (Endler & Kocovski, 2001).



Picture 2. The multidimensional state - feature model of anxiety (Enler & Kocovski, 2001)

Anxiety is a multidimensional construct that includes fear, uncertainty, hesitation, entering into a tension of searching for a way out of a certain situation, imbued with the expectation of a feeling of safety and well-being. In conclusion, anxiety is a complex and dynamic phenomenon marked by restlessness, agitation, tension, fear, insecurity, unjustified worry, which manifests itself either as a state that appears in certain circumstances, usually of a limited duration, which can be encountered in every person's life, or as a personality trait that is relatively constant, stable and does not depend on the factors and circumstances of external life.

5. Conclusions

School anxiety has negative effects on social development, but also on school performance in primary school students. It is anxiety related to situations related to school and communication with the teacher within the educational process. Children who suffer from school anxiety are characterized by negative emotional experiences that may be determined by their need to adapt to the demands and norms of the school, grades, teacher and exaggerated demands on themselves, etc. Anxiety models and theories support knowledge of the factors underlying the manifestation of specific indicators and offer teachers appropriate educational intervention measures. Early detection of school anxiety is important in order to develop programs based on appropriate interventions. Discovering the causes of anxiety and reducing it becomes a basic task for both teachers and parents. Reducing school anxiety will significantly reduce discomfort and help improve learning ability.

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