Frustration

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Definition

Frustration is a key negative emotion that roots in disappointment (Latin *frustrā* or “in vain”) and can be defined as irritable distress after a wish collided with an unyielding reality.

A functional perspective

The experience of brief and intense emotions is an integral component of our everyday conduct. Emotions influence how we make decisions and navigate our worlds, via bodily changes that prompt us to action. Frustration is a key negative emotion that roots in disappointment, and can be defined as irritable distress in response to limitation, exclusion, and failure (a state of dissatisfied insecurity). Frustration elicits negative affect to signal that interests and interactions must be adjusted, and emotional tension or “arousal” to instigate defensive or aggressive behavioral responses, such as strive to reduce or eliminate the blocking agent or circumstances.

Frustration evolved to deal with a particular, evolutionarily recurrent situation type, and is experienced when people encounter unresolved problems, such as contextual or psychological barriers or obstructions, which must be removed to fulfil personal goals, desires, drives, or needs. Technically, frustration is elicited when a goal-pursuit is not fulfilled at the expected time in the behavioral sequence (an unexpected non-reward). The most reliable trigger of frustration is an *externally attributed* omission of a rewarding event or item, and especially a perceived obstruction by an *intentional* antagonistic act (Jeronimus et al., 2015). The intensity of frustration is a function of the reward value of the frustrated approach goal (reward proximity and motivation), the degree of interference (partial/total), the number of interferences per unit time, and one’s self-regulation abilities (Berkowitz, 1989).

From a functional perspective, frustrated arousal should facilitate approach tendencies when the problem is deemed *controllable* and the goal perceived as *attainable*, e.g., inflicting costs via anger to overcome problems. Conversely, when the problem is appraised as *uncontrollable*, frustration should facilitate avoidance (withdrawal, via fear or anxiety), or low approach when the goal is perceived as *unattainable* (downregulation of expected benefits via sadness). After cues trigger the frustration mode the way we see the world and feel about the world changes. The energizing effects of frustration can thus catalyze a broad range of processes, which may be positive, because when we are frustrated we make greater efforts and strive in other directions, which resulted in the creation of the electric light bulb, internet, and Facebook, among others. All people suffer from frustration, because our needs cannot always be adequately satisfied in all situations, and frustration can help us to identify these needs. The ability to effectively deal with frustration is therefore a very important skill to develop.

The development of frustration

Experiences of frustration have a substantial genetic basis (ca. 50%) which can be observed from very early in life. Generally speaking frustration emerges during the first year of life, and increases over childhood to peak during early and middle adolescence (Buss, 2011; Putnam et al., 2001), followed by a slow declines with age. Specifically, over childhood children usually lack the impulse control that is required to hold back from an intense immediate response. Moreover, in our first two years we typically cannot stand frustration, which may be expressed in tantrums. After our second year this frustration-tolerance improves, also due to better language skills. A three-year old may say “I hate you” when frustrated by limits, whereas many four-year olds experience frustration when they are unable to make sense of an explanation to one of their

“why” questions. Over childhood new sources of frustration emerge, including new expectations, and comparisons with peers, older siblings, and adults. Adults, finally, who predispose for frustration early in life tend to score higher on the “angry-hostility” facet of the neuroticism personality domain, in which frustration clusters with trait anger and bitterness (McCrae et al., 2005).

Importantly, developmental patterns of frustration vary slightly across genders. Male infants are typically less able to regulate their frustration reactivity physiologically via behaviors. And while childhood frustration-proneness is comparable in both genders, boys become somewhat more inclined to frustration than girls over early adolescence until age 16, and adult men typically remain slightly more angry and hostile than women.

Causes and consequences of frustration: the social environment

Childhood frustration-intolerance has been associated with a broad range of outcomes, including psychological, social, and occupational functioning, well-being, and somatic and mental health service use (Caspi et al., 2016). Both stability and change in dispositional frustration emerges from an interplay between individuals and their (social) environment. Easily frustrated infants are typically perceived to be less attentive, more active, and more distressed to novelty than their less easily frustrated peers, and are more likely to develop an insecure-avoidant attachment style.

Children and adolescents who are easily frustrated report more stressful social events with parents and peers, in part due to the *perception* of more frequent hostile intent, rejection, and disapproval in others (Laceulle et al., 2015). As such, dispositional frustration can have pervasive social consequences, in term of social relationships and interactions, but also with regard to occupational and job performances.

The social environment can also affect our frustration tolerance, either in terms of further reinforcing and stabilizing an already existing predisposition, or in terms of contributing to small changes in frustration. For instance, more rigid and disciplinarian parents can increase the number of frustrations their child faces. In addition, frustration-tolerance may decrease after major social stressors, and this change can persist for months and may get under the skin (Jeronimus et al., 2016). Thus, frustration tolerance both affects and can be affected by the social environment, and these processes are known as person-environment transactions (e.g., Laceulle & van Aken, 2017).

Frustration, psychopathology and life-outcomes

Dispositional frustration, as well as interactions between frustration and the social environment, can have profound consequences for an individual's vulnerability for the development of psychopathology. Frustration explains a substantial part of the development of psychopathology over adolescence, which suggests that frustration is close to the origin of the causal pathways towards psychopathology (Caspi et al., 2016; Jeronimus et al., 2015). High frustration during adolescence predicts increases in general distress and externalizing symptoms such as anger and substance abuse, and an increased risk to develop anxiety, depression, substance abuse and thought disorders and their symptoms during adulthood (Jeronimus et al., 2015, 2016).

Frustration has repeatedly been related to aggression and attention deficits, such as in the famous frustration-aggression hypothesis (Berkowitz, 1989). Frustration typically elicits anger (an emotion), which in turn reduces inhibitions and narrows attention to cues for threat, which *can* lead to aggression (a behavior which causes harm or damage, either physical, verbal, or relational), as outlined. Importantly, whereas frustration requires a blockage to obtain a desired goal, this is not a necessity for anger and aggression. The frustration-aggression link has been

refined via the dual aggression model which distinguishes reactive from proactive aggression (Hubbard et al., 2010). Frustration elicits *reactive* aggression to a perceived blockage (“aroused/hot”), which can be either internally or externally provoked, resulting in an emotional, impulsive, and defensive or hostile/retaliatory reaction. *Proactive* aggression, in contrast, tends to be calm and instrumental, and is associated with popularity, delinquency, and psychopathy, rather than frustration.

Frustration intolerance may be particularly notable in new situations and when the person is tired or stressed. Low frustration tolerance is a characteristic feature of personality disorders, especially for borderline and antisocial personality disorder, and has been associated with narcissistic, obsessive, paranoid, histrionic, and schizoid traits. Being easily frustrated is also commonly reported by adults with sleep problems, medically unexplained complaints, dyslexia, dyspraxia, dementia, Alzheimer's, and traumatic brain injury. Also high functioning autistic people (previously known as Asperger) are typically more prone to frustration.

Animal models of frustration

Frustration has been extensively studied using animal models. In these models, frustration is often conceptualized as part of a cognitive “rage system” that influences memory-retention and learning processes to suit a deliberative mindset to deal with the source of danger or obstruction, or to retrieve or replace a lost resource. Individual differences in frustration have been observed in chimpanzees, pigs, rats, and birds. Even honeybees show frustration-like responses when experimenters shift access from a high very-sweet concentration of sugar to one that is much less concentrated, thus presumably less desirable. Frustration enables organism both individually and collectively to adapt, survive, and reproduce.

History

About 2500 years ago Gautama Buddha claimed that frustration is often generated by desire and attachment. At the same time Graeco-Arabic medical traditions conceived Frustration intolerance as characteristic of the Choleric type, a person who is quickly tempered (irritable/angry) due to highly active bodily fluids and a preponderance of yellow bile. These “fire people” responded rapidly and sustained their response for a relatively long time (hot/dry).

Early in the 20th century Sigmund Freud revived interest in frustration with his psychodynamic theory of neurosis, in which frustration referred both to external barriers to goal attainment and internal obstacles blocking need satisfaction. Freud postulated that unresolved frustrations from infancy and early childhood played out unconsciously in adulthood, and saw frustration as a necessary condition for mental illness, and the most common cause for neurosis.

The psychotherapist Albert Ellis’ rational emotive behavior therapy (REBT) purported that emotional disturbances typically root in frustration intolerance, viz. the belief that reality should be how we want it to be. Frustration was thought to be the typical response to irrational cognitions like “life should be fair.” Challenging the validity of these beliefs then challenged the frustration that resulted from it.

Over the past century the choleric and melancholic temperament types evolved into the modern personality dimension neuroticism, whereas neurosis developed into anxiety, depression, and somatic disorders.

Conclusion

Frustration is a key emotion that can elicit a wide range of responses. Although frustration is known to have a substantial genetic component, research has provided support for both lifespan development and (small) environmentally-driven changes in frustration. Individual differences in frustration can have profound consequences for major life outcomes, including how we shape our social environment, our occupational functioning, our well-being, and a (increased) risk for the development of somatic problems, psychopathology and aggression.

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