

## The Psychodynamics of “Choking” Under Performance Pressure

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Individuals sometimes do not achieve at the level that would be expected given their knowledge and/or skills when there is pressure to perform. When suboptimal performance is significant, and it occurs during a high stakes moment or event, the phenomenon is referred to metaphorically as “choking” under pressure. While the phenomenon is well-studied, the literature is dominated by cognitive–behavioral and neurological explanations. These findings are necessary components of any comprehensive understanding of choking (and its subsequent treatment); they are also insufficient. Increasingly, contemporary psychological science researchers and theorists are studying how implicit (i.e., unconscious) processes bypass conscious awareness and influence perceptions, thoughts, feelings, and behaviors. Using psychoanalytic theory, two psychodynamic conflicts that may contribute to choking under pressure are identified: conflict over autonomy, and conflict over aggression/competition. A more comprehensive explanation for choking advances our understanding of why performance may falter in high-stakes situations. These insights may lead to more effective treatments.

### *Clinical Impact Statement*

Unconscious psychological conflicts may contribute to choking under pressure. Incorporating the conflict concept into clinical practice may lead to more effective treatments.

*Keywords:* choking, anxiety, sports psychology, performance, psychodynamic

Individuals sometimes do not achieve at the level that would be expected, given their knowledge and/or skills, when there is pressure to perform. When suboptimal performance is significant, and it occurs during a high stakes moment or event, the phenomenon is referred to metaphorically as “choking” under pressure (Mesagno & Hill, 2013). Choking is more than just poor performance; it is performing considerably worse than expected, on the basis of one’s knowledge and/or skill level, during pres-

sure-filled circumstances. The performance decrement can occur during a single task or involve deterioration over time. Additionally, choking can occur during any performance situation, including athletic, academic, artistic, or professional.

Choking under pressure is a well-studied phenomenon; however, the literature is dominated by cognitive–behavioral and neurological explanations. While these findings are necessary components of any comprehensive understanding of choking (and its subsequent treatment), they are insufficient. Increasingly, contemporary psychological science researchers and theorists are studying how implicit (i.e., unconscious) processes bypass conscious awareness and influence perceptions, thoughts, feelings, and behaviors (e.g., Bargh & Morsella, 2008). Psychoanalytic theory would appear well suited for contributing to a discussion about choking under pressure. However, the peer-

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reviewed psychoanalytic literature contains no references to the topic. Searching the Psychoanalytic Electronic Publishing database using “choking” and “sports” or “performance” as all-text keywords revealed no results. Expanding the search (“anxiety,” “sports,” “performance”) led to several articles that studied motivations to participate in sports, or the role sports serve in societies (e.g., [Dervin, 1985](#); [Free, 2008](#)). There were also articles studying a related performance issue: “stage fright” (e.g., [Gabbard, 1979](#); [Simmonds & Southcott, 2012](#)). While some of these articles are interesting, and potentially helpful, they are not focused on the relevant topic. Thus, a significant gap exists in the aggregated psychology literature.

The present article addresses the knowledge gap by identifying psychodynamic factors that may contribute to choking under pressure. A more comprehensive explanation for choking advances our understanding of why performance may falter in high-stakes situations. These insights may lead to more effective treatment interventions. In the article’s first section, the phenomenology of choking under pressure is described, and the predominant neurological and cognitive–behavioral explanations are presented. In the second section, fundamental psychodynamic factors are introduced. In the third section, two specific psychodynamic conflicts that may contribute to choking under pressure are identified: conflict over autonomy, and conflict over aggression/competition. In the fourth section, psychodynamic treatment considerations are offered. Finally, clinical examples are presented to illustrate how conflicts manifest and how they may be treated using a psychodynamic approach.

## A Preliminary Understanding of Choking

### Phenomenology

Subjective reports of choking, which are typically gathered from athletes and performance artists for experimental and naturalistic research studies into the phenomenon (e.g., [Bawden & Maynard, 2001](#); [Philippen & Lobinger, 2012](#)), portray a variety of psychological and physical symptoms. Typical symptoms include difficulty concentrating to the point of mental blankness; focusing on minor/irrelevant details; heightened alertness; compulsive behaviors; intrusive and

ruminative self-critical and/or catastrophizing thoughts; restlessness/agitation; dizziness; nausea; dry mouth; rapid/shallow breathing; profuse perspiration; elevated heart rate/blood pressure; muscle fatigue/weakness; and involuntary muscle activity (cramping, freezing, tremors, and/or spasms).

### Neurological Factors

Many choking occurrences, particularly in sports and music, are viewed as manifestations of a task-specific focal dystonia ([Adler, Crews, Hentz, Smith, & Caviness, 2005](#); [Altenmüller & Jabusch, 2009](#)). A focal dystonia is a hyperkinetic movement disorder characterized by involuntary muscle contractions, which include jerking, freezing, cramping, tremors, and/or spasms. The dystonia is considered task-specific when it occurs during highly trained movements. For example, evidence for a task-specific focal dystonia may be found when muscle contractions in a golfer’s arms or hands interrupt his or her putting stroke (i.e., the “yips”), or when a musician’s hands tighten involuntarily while playing his or her instrument (i.e., “musician’s cramp”). A definitive etiology remains unknown. Possible causal contributions include stroke, head trauma, metabolic diseases, dopamine blocking drugs, subcortical biochemical changes due to aging, deterioration in the basal ganglia, and/or abnormalities in the dopaminergic system in the basal ganglia ([Hallett, 2011](#)).

Another neurological factor that may contribute to choking is impairment of the prefrontal cortex. The prefrontal cortex influences our ability to assess situations, as well as modulate emotions and impulses; it also plays a role in selective attention and working memory. Stress/anxiety can overwhelm the prefrontal cortex, increasing the likelihood of poor decision making, dysregulated affect, and socially inappropriate behaviors ([Hiser & Koenigs, 2018](#); [Lee & Grafton, 2015](#)). Additionally, distracting, intrusive, and/or ruminative thoughts can emerge when selective attention and working memory are compromised by stress/anxiety, making it difficult to focus on the task at hand ([Balderston et al., 2017](#)).

### Cognitive–Behavioral Factors

Cognitive–behavioral explanations for why significant suboptimal performance occurs in

high-pressure situations revolve around how individuals manage anxiety. In “attentional models” (Schücker, Hagemann, & Strauss, 2013), individuals alter, either voluntarily or involuntarily, their focus and concentration. Peak performance, particularly when under pressure, requires sufficient nondistractible attention for identifying and processing relevant information while simultaneously blocking out superfluous information. Some individuals choke because attention needed to perform an activity is transferred to task-irrelevant thoughts (e.g., worries about the situation and/or its implications; DeCaro, Thomas, Albert, & Beilock, 2011). They distract themselves from what they should be doing by focusing on their symptoms and/or imagined outcomes. Alternatively, some individuals choke because they focus too narrowly on the task at hand in an effort to exert greater control over what they are doing. Explicitly monitoring an activity’s granular components disrupts what should be a seamless, automated process, leading to a breakdown in executing sensorimotor skills or disseminating previously learned knowledge (DeCaro et al., 2011). In essence, they get bogged down and suffer “paralysis by analysis.”

### Psychodynamics

Within psychoanalytic theory, “psychodynamic” refers to interactions between a motivating psychobiological need/want/striving, countervailing psychological defenses, and internalized moral values (Rapaport & Gill, 1959). *Homo sapiens* are motivated organisms (Cortina & Liotti, 2014). Our thoughts, feelings, and behaviors are not random series of isolated, exogenously determined reactive moments, but are organized sequences rooted in recurrent, endogenously generated needs/wants/strivings that have specific activating and deactivating conditions (Rosenblatt & Thickstun, 1977). These psychobiological needs/wants/strivings are definable and classifiable. For example, Lichtenberg (1989) identified five motivational sources: attachment, physiological regulation, aversion, exploration/assertion, and sensual/sexual.

Psychobiological needs/wants/strivings may be operationalized as “wishes.” If someone is hungry (physiological regulation), then he or she desires food. If someone is lonely (attach-

ment), then he or she may yearn for companionship. *Homo sapiens* endeavor to fulfill their wishes through specific behaviors, which satisfy the underlying motivational needs/wants/strivings. However, unfettered pursuit of every wish is typically not permitted within civilized societies (Freud, 1930/1961). If someone becomes enraged (aversion), then he or she may not lash out violently. Every culture has its own prescriptions for normative behaviors, which are transmitted through civic practices (e.g., laws), schools, places of worship, and locally through families. During childhood, individuals internalize these sociocultural conventions as behavioral standards and moral strictures. Additionally, everyone possesses innate psychological defenses, to deal with adversity, stress, maintain self-esteem, promote social conformity, and guard against anticipated negative outcomes (Cramer, 2015). Thus, internalized values and psychological defenses ward off wishes that are deemed dangerous, unpleasant, unacceptable, disturbing, or disruptive.

Tension often exists between wishes, defenses, and values since it is difficult for many wishes to be gratified fully because of societal and individual (psychological) constraints. The human mind is always reconciling these conflicting components, with the outcome known as a compromise formation (Freud, 1900/1953). Essentially, the mind attempts to balance fulfilling any given wish with the defenses and values arrayed against it. This conflict and compromise dynamic contributes to both normal and pathological psychological functioning. When a wish is nonthreatening, then minimal defenses are needed and there is no moral opposition, so the wish can be fulfilled through an adaptive compromise. However, if the prospect of a wish being fulfilled is too threatening, then defenses and values counter it and a maladaptive compromise emerges. From this perspective, pathological symptoms (e.g., depression, insomnia, panic attacks, phobias, obsessions, compulsions, anorexia, binge eating, paraphilias, substance abuse) are viewed as maladaptive compromise formations. The conflict/compromise dynamic is an empirically demonstrable phenomenon (Simmonds, Constantinides, Perry, Drapeau, & Sheptycki, 2015).

Several features of the conflict/compromise dynamic need to be expounded. First, conflict/compromise can occur outside conscious

awareness. A considerable amount of our psychological functioning occurs implicitly; additionally, we can be entirely unaware of what motivates a thought, feeling, and/or behavior. Sensory information is processed in multiple, simultaneous, parallel ways, including through implicit, nonverbal, subsymbolic channels, and information/experiences can be encoded in various memory systems, clustered around affectively linked nodes (Bucci, 1997). These nodes can be activated through latent associative triggers and unconscious priming (Erreich, 2017; Westen & Gabbard, 2002), which can significantly influence an individual's perceptions, thoughts, feelings, and behaviors without any conscious causal awareness (Bargh & Ferguson, 2000).

Next, every conflict/compromise exists within an internalized self-relational matrix, and contemporary conflicts may repeat issues from childhood. Beginning in childhood, individuals internalize representations of self and others with whom they have meaningful relationships. These representations form cognitive-affective templates (e.g., schemas, internal working models) that process and interpret information quickly to meet underlying psychobiological needs/wants/strivings (Bowlby, 1969; Pietromonaco & Barrett, 2000). These developmentally earlier templates, rooted in immature cognition (e.g., preoperational thought) and infused with potent emotions (e.g., fear, love, hate), are not lost with maturation. In fact, they continue to implicitly influence our perceptions, thoughts, feelings, and behaviors throughout the life span, particularly in stressful situations. Thus, early interactions with caregivers can exist without semantic representation into adolescence and adulthood, shaping preferences and expectations, as well as creating vulnerabilities that lead to emotional distress, psychological disturbances, and the repetitive enactment of dysfunctional relational patterns.

Finally, anxiety plays a prominent role in many conflicts, as it serves as a warning signal that a wish could be dangerous (Freud, 1926/1959). While a fear reaction occurs in animals when a threat is immediate and present, the human mind can use its imagination to appraise and anticipate danger even when no threat is imminent. This appraisal process, which can occur automatically and implicitly, can trigger a fear reaction just by thinking about something

threatening (Pally, 2007; Wong, 1999). During childhood, some wishes become associated with specific dangers. These are the “calamities of childhood” (Freud, 1926/1959), and include abandonment, losing the primary caregiver's affection, retaliation leading to bodily injury, and guilty self-condemnation. As adults, individuals can experience anxiety when a contemporary situation triggers a perceptually similar, previously encountered danger, even one from childhood (Öhman & Mineka, 2001).

### Psychodynamic Conflicts Involved in Choking

In this section, two psychodynamic conflicts relevant to individuals who choke under pressure are described: conflict over autonomy, and conflict over aggression/competition. The conceptual foundation for these conflicts is built upon experimental research into principal stressful experiences with which people typically cope (autonomy, competition, relatedness; Skinner, Edge, Altman, & Sherwood, 2003), and an empirically supported psychoanalytically oriented treatment for anxiety disorders (Busch, Milrod, Singer, & Aronson, 2012). Although these are the most common conflicts involved in choking, conflict over any psychobiological need/want/striving may occur when the wish is deemed unpleasant or unacceptable. Additionally, when choking becomes a chronic occurrence, some individuals may attain a secondary gain from the episodes: the experience itself becomes exciting and arousing.

For choking to manifest, an individual must be in a situation that increases the importance of his or her performance. The objective context matters less than its unique and subjective meaning to the individual. For example, high stakes for one individual might be the first round of a sports tournament or interview process, while for another person it is the final round. In this pressure-filled situation, an underlying motivation generates a wish. The wish could be as simple as “I want to win” or “I need to do well in this interview.” The wish is perceived to be dangerous, which generates anxiety and evokes countervailing defenses, resulting in a compromise formation. What could possibly be dangerous about winning a sporting event, or performing well during an interview? The word “choking” provides a clue. When someone is



physically choking (i.e., has difficulty breathing), it is a frightening experience because it can be a *life or death* situation. It is argued in the present article that individuals who choke experience a contemporary situation as the recrudescence of an archaic calamity from childhood. When this occurs, defenses are deployed, and a maladaptive compromise is forged: The individual permits him/herself a measure of success (e.g., advancing to a certain level), but then undermines his or her performance in crucial moments through debilitating symptoms. While choking is an unpleasant experience, the afflicted individual avoids an imagined, even worse (i.e., catastrophic) outcome.

### Autonomy

There appears to be an underlying psychobiological need/want/striving for autonomous functioning (Weinstein, Przybylski, & Ryan, 2012), also described as separation-individuation (Mahler, 1972). Individuals typically separate physically and emotionally from important attachment figures over the course of their life span, repeatedly working through issues concerning dependency and autonomy during different developmental phases. The most significant separation-individuation occurs during childhood, which then influences following phases.

Children between 12 and 36 months increasingly develop more control over their own body (e.g., toilet training, learning how to walk), which leads to physical separation from the primary caregiver. They also begin articulating their thoughts and feelings, which leads to emotional separation from the primary caregiver. Additionally, maturing cognitive, motor, and language skills promote independent functioning and concomitant wishes for self-determination (e.g., wanting to dress/feed themselves). Such separation and striving for autonomy can be very appealing to the child; at the same time, autonomy can also be very threatening. The child may fear losing the caregiver's affection if he or she becomes too independent. Worse, the child may fear abandonment by the person on whom he or she most depends. For a child, this is understandably a catastrophic outcome. It is typical to see children exercise autonomy, and then seek to reunite with the primary caregiver. This sometimes manifests as alternating reject-

ing and clinging behavior. When caregivers encourage autonomy and promote adaptive dependence (e.g., seeking support and guidance when needed), the child learns that the dangers do not actualize and it is safe to separate and individuate.

Initial choking episodes often occur in adolescence and early adulthood, when individuals are first exposed to high pressure, competitive situations such as exams, sporting events, and/or auditions/interviews. Not surprisingly, adolescence and early adulthood are significant separation-individuation developmental phases. For brevity, the present article focuses on early adulthood. During the transition to adulthood, most individuals separate from their family of origin and begin functioning with limited direct intervention from their childhood caregivers. Physical separation often involves leaving one's childhood home. Emotional separation involves reworking childhood/adolescent attachments rooted in dependency to more mature attachments rooted in mutuality. Emotional separation also involves consolidating a cohesive identity, as well as fostering one's own preferences and aspirations. While becoming an adult typically provides increased freedom and greater self-determination, the burdens (e.g., choices, opportunities, expectations) and uncertainties (e.g., ability to function as an adult) can make the cost of growing up appear more expensive than any possible benefit. Thus, pursuing wishes related to autonomy can trigger dormant childhood conflicts, reviving fears of losing a caregiver's affection or being abandoned. These fears may be intensified when the individual's self-defined identity, preferences, and aspirations are different from an attachment figure's expectations.

For some individuals, an outcome that equates to success and/or completion means greater separation and independence. While this may be consciously desired, it is also feared that increased autonomy will result in abandonment. To avoid this perceived catastrophic outcome, the individual undermines his or her performance to remain connected to, and emotionally dependent upon, an attachment figure. Choking behaviorally communicates "I will not become too independent," thus preventing the feared abandonment. It is likely that conflict over autonomous functioning contributes to the difficulty some individuals experience when per-

forming under pressure. Individuals diagnosed with anxiety disorders often struggle with dependence versus independence (Busch et al., 2012).

### Aggression/Competition

Aggression appears to be an inborn motivation used to pursue goals (e.g., obtaining resources, self-defense) and to remove obstacles that interfere with one's aims (Buss, 2009).

However, an organized society is only possible when aggression is channeled constructively (Freud, 1930/1961). This has some foundation in ethological research. In many mammalian species, ritualized dominance displays settle disputes over food, territory, access to sexual partners, and social ranking through nonlethal means so disagreements do not become fights to the death (Cortina & Liotti, 2014). Thus, aggression and competition are inextricably intertwined, and learning how to sublimate aggression is an important psychological achievement.

Children between 3 years old and 6 years old gradually recognize that their caregivers have a physically and emotionally close relationship with each other, a relationship that does not include the child. This typically engenders intense feelings of envy, jealousy, exclusion, and rivalry, as the child competes with each caregiver for the other's attention and affection. Children also compete with other attachment figures (e.g., siblings), and their own caregivers' responsibilities, to receive individualized time. Finally, as children enter daycare, kindergarten, and elementary school, they increasingly compete with peers for their other playmates' friendship.

Aggression motivates children to remove obstacles to their goals, which in this instance is retaining or regaining an exclusive, unfettered dyadic relationship. Thus, there are wishes to remove or replace rivals, which can manifest as hostile thoughts, feelings, and behaviors. These activities are simultaneously gratifying and frightening. Children can anticipate disapproval for their hostility, based on previous caregiver reactions to their aggression, and fear retaliation in the form of bodily injury. If they wish to do harm, then they expect retribution in kind (i.e., “an eye for an eye”).

Initially, competition can be experienced by children as a dangerous “all-or-nothing”

contest, often against much bigger “opponents.” The developmental task involves learning how to compete adaptively by transforming destructive aggression into constructive aggression, which promotes agency, ambition, and the ability to act purposefully on the environment in socially appropriate ways. When caregivers are not threatened by their child's wishes to replace them, they can set appropriate limits and boundaries on the child's hostility and help the child work through aggressive thoughts and feelings. Additionally, as the child learns how to navigate triadic relationships, he or she develops greater empathy, reciprocity, and guilt, which tame destructive aggression. Ultimately, the child learns that it is safe to compete. That is, it is safe to be competent, have preferences, pursue self-generated goals, and assert oneself. This is consistent with White's (1959) argument that when children's attachment and security needs are met, they are motivated to obtain competence/mastery within their environment. This desire for competence may then mitigate conflicts over autonomy and aggression/competition, providing an adaptive route toward achievement.

Choking occurs in competitive situations. A sporting event, job interview, audition, and certain tests (e.g., bar exam, driver's license exam) may be conceptualized as competitive “all-or-nothing” circumstances. Someone either wins or loses, passes or fails. It is not a coincidence that violent words and imagery are often used to describe success and failure in these situations: “I killed it”; “I got destroyed”; “It was a blood bath”; “They were slaughtered.” Some individuals who choke under pressure fear that pursuing their goal means someone will be hurt/destroyed. Thus, choking emerges as a compromise formation: The individual may attain a certain level, but then undermines his or her strength, competence, ambition, and/or vitality. Choking behaviorally communicates “I am not a threat,” “I will not hurt anyone,” “I do not possess murderous desires,” thus preventing the feared outcome. It is likely that conflict over aggression/competition contributes to the difficulty some individuals experience when performing under pressure. In classical psychoanalytic theory, this conflict contributed to what was called a “success neurosis” (Freud, 1916). Contemporary findings indicate that individuals diagnosed with anxiety disorders often struggle with anger and aggression (Busch et al., 2012).

## Treatment Considerations

Choking under pressure is best conceptualized as a symptom of anxiety. Clinicians and researchers using cognitive-behavioral therapy (CBT) have developed efficacious treatments for anxiety disorders. However, not all patients (29%–48%) respond to these treatments, and some terminate prematurely (Barlow, Gorman, Shear, & Woods, 2000; Chambless & Peterman, 2004). Given that a comprehensive psychological theory is one that integrates the best available evidence, psychodynamic conflict merits inclusion as a core explanatory factor for choking under performance pressure. Such inclusion may lead to more effective treatments, particularly for CBT refractory cases.

The guidelines and interventions identified in this section are drawn primarily from Panic Focused Psychodynamic Psychotherapy (PFPP). This is a psychoanalytically oriented, empirically supported psychotherapy for anxiety disorders (Busch et al., 2012). While this article is no substitute for appropriate preparation in either PFPP or psychodynamic psychotherapy (competent and ethical treatment requires sufficient education, training, and supervision), the general treatment considerations that are described should be familiar to clinicians exposed to psychodynamic psychotherapy through their graduate education and training.

## Initial Evaluation

Sufficient data regarding the patient's symptoms and developmental history are gathered to make a differential diagnosis, formulate a preliminary understanding of what may be occurring, and facilitate treatment planning. For choking under pressure, a principal task is discerning whether a neurological or a psychological diagnosis is more suitable. This requires careful assessment, as some symptoms may suggest a movement disorder, but scrutiny reveals a psychological phenomenon. For example, an athlete or musician who experiences numbness and tingling in his or her hand may appear to have a focal dystonia, but it could also be a conversion disorder known as "glove anesthesia."

Capturing the history of the presenting problem is a pivotal evaluation task, as it is neces-

sary to identify precipitating events. From a psychoanalytic perspective, symptoms rarely come from "out of the blue." Often there is an obvious stressor in the person's life, but it could be something seemingly innocuous yet symbolic. Specific events and/or feelings in the hours/days prior to the choking episode are investigated thoroughly. This component also includes asking about previous choking episodes or anxiety attacks. Finally, a detailed life span developmental history is obtained. Emphasis is on issues with autonomous functioning, separation, dependency, anger, aggression, and competition in childhood, adolescence, and/or early adulthood.

## Case Formulation

The clinician uses the available data to explain why the individual choked under pressure. When appropriate, the task includes identifying a core dynamic conflict and specifying how the choking phenomenon was a maladaptive compromise. What was the manifest wish and underlying motivation? What made the wish so dangerous and unacceptable? What defenses were used to contain the wish? Were there any moral/religious prohibitions? How did choking serve to protect the individual? What conditions/factors served as triggers for the choking episode? Are there any current developmental tasks that influenced the choking episode? The formulation also includes neurophysiological and neuropsychological explanatory and moderating factors, which may contribute to some individuals being more susceptible to dynamic conflicts.

## Treatment Planning

Currently, CBT is the predominant treatment for individuals who choke under pressure. Some individuals may want CBT, or the clinician believes he or she may respond favorably to CBT. In these instances, such a recommendation should be made. Psychodynamic psychotherapy may be indicated in at least two instances: First, if the individual has already tried CBT and did not find it helpful. For CBT refractory cases, including dynamic conflict in the formulation and treatment may provide a missing ingredient. Another indication may be if the individual is curious about what happened and senses that his or her experience is connected to something

deeper. Psychodynamic psychotherapy helps patients gain awareness of how their conscious thoughts, feelings, and behaviors may be influenced by unconscious factors. Some clinicians may be reluctant to make a recommendation for psychodynamic psychotherapy due to outdated stereotypes. PFPP is a time-limited (24 sessions), empirically supported treatment that is likely to be suitable for individuals who choke under performance pressure.

### Framework and Interventions

The general framework of a psychodynamic treatment is no different than any other approach. There are discussions about the treatment's basic parameters (e.g., confidentiality, session frequency/duration/cost, treatment length/goals), and the patient's informed consent is obtained. Several specific principles for structuring the treatment are clearly derived from psychoanalytic theory: The patient guides the session's content; the clinician avoids giving personal advice/suggestions; and the clinician follows the patient's associations/emotions and links emerging content to his or her presenting problem. These principles are intended to facilitate the therapeutic process and minimize the clinician's undue influence upon it (e.g., countertransference).

Many interventions used in a CBT treatment also can be used in a psychodynamic treatment, including alleviating symptoms, developing coping resources, confronting automatic thoughts, and providing psychoeducation (e.g., Connors, 2006; Summers & Barber, 2010). The clinician calibrates his or her interventions to the patient's current needs. For example, a psychodynamic clinician might demonstrate breathing and relaxation exercises to help a patient learn how to regulate affect and/or reduce stress; role play to promote assertiveness; or explain the nature of anxiety. In a psychodynamic treatment, such interventions are intended to help patients better modulate maladaptive compromise formations, which otherwise are discharged through symptoms (e.g., somatization, behavioral impulsivity, intrusive/ruminative ideation).

The signature psychodynamic intervention is an interpretation, which is a tactful, tentative explanation or alternative viewpoint. An interpretation is rooted in observable data (i.e., what

the patient says and does) and connects it to a dynamic conflict by identifying its components: manifest wish, underlying motivation, danger situation, defenses, activating conditions (i.e., precipitating events), and the resulting maladaptive compromise. Identifying archaic, implicit, nonverbal, subsymbolic, procedurally encoded information transforms it into contemporary, explicit, verbal, symbolic, semantically encoded information (Bucci, 1997). Interpretations promote change through insight, which may be defined as self-awareness and self-understanding. Insight includes observing one's own psychology, recognizing patterns and/or connections, and recognizing motivations of self and others (Messer & McWilliams, 2007). Insight permits greater conscious control over previously unconscious processes so that maladaptive thoughts, feelings, and behaviors may be revised. Insight is believed to be an important psychotherapy change mechanism (Castonguay & Hill, 2007).

### Clinical Examples

In this section, specific cases are presented to illustrate how conflicts over autonomy and aggression/competition manifest in performance situations and result in choking. Additionally, these cases demonstrate a contemporary psychodynamic approach to treatment. Identifying information and some case details have been altered and/or disguised to preserve confidentiality.

#### Vignette #1

Mr. C was a 21-year-old college senior who sought consultation during his winter break after “bombing” the Law School Admission Test (LSAT). Mr. C reported earning a score that was 20 points lower than his practice-exam scores, and well below the LSAT's median score. Mr. C was confused about what happened, depressed and embarrassed by his poor performance, and uncertain about how to proceed with his life.

On the day of Mr. C's scheduled exam, he reported feeling highly agitated. During the exam, he forgot the test-taking strategies he learned, had difficulty concentrating on the questions, and was hesitant/ambivalent about many answers. Exploring the presenting prob-



lem's history revealed that Mr. C had no history of test anxiety or academic problems. In fact, Mr. C regularly made the Dean's List and anticipated graduating with honors. Mr. C did not recall any stressors that may have impacted his performance. Mr. C's developmental history revealed that he had considerable difficulty transitioning to kindergarten and that he had no desire to attend a college that would require him to move away from his childhood home. He initially attended a community college for two years, and then transferred to a local university to complete his bachelor's degree in a social science. During Mr. C's college years, he lived at home and commuted to both schools.

Why did Mr. C choke on the LSAT? His cognitive functioning was clearly impacted by stress, yet he had no history of test anxiety. Why would he suddenly unravel on this test? There was no recent life stressor that might have impinged upon him. Taking the LSAT was the precipitating event. Thus, my formulation focused on a psychodynamic conflict: a conflict over autonomy. Despite Mr. C's sincere desire to attend law school, this wish also provoked considerable apprehension since it meant leaving home, as there were no law schools within reasonable commuting distance. Although Mr. C would be the one leaving, he experienced the prospect of moving as an abandonment. That is, he would lose the comfort and security of home and be alone. Thus, a good score on the LSAT became an exceedingly dangerous event, and Mr. C protected himself by (unconsciously) impairing various cognitive abilities such as his concentration and memory. The resulting, maladaptive compromise: Mr. C's wish to go to law school was partially gratified by preparing for and taking the LSAT, but he then sabotaged his performance on the exam so that a feared abandonment did not occur. Mr. C's present conflict appeared to repeat past difficulties with separation and autonomous functioning.

In addition to choking on the LSAT, Mr. C's conflict over autonomous functioning manifested through indecisiveness and avoidance surrounding early adulthood separation issues. He would express a desire to do something separate from his family (e.g., go on a spring break trip with friends) but would delay acting until it was too late or back out at the last moment. Interestingly, Mr. C revealed that he had canceled a previously scheduled LSAT test-

ing date because he "did not feel ready for it." Like choking, the indecisiveness and avoidance were maladaptive compromises that served the same purpose.

Clinically, the maladaptive compromises provided opportunities to promote autonomous functioning. I used pragmatic, skill-focused interventions to foster Mr. C's decision-making ability. We discussed how to identify a preference; gather and evaluate relevant information; and then make a choice aligned with one's preference. We also worked on his assertiveness through role playing. Finally, I interpreted the conflict over autonomy whenever it emerged. We closely examined how, in each instance, his desire for greater autonomy generated irrational fear of abandonment, culminating in a maladaptive solution to prevent this outcome. These explorations highlighted how the choking episode, indecisiveness, and avoidance were part of the same underlying conflict.

Over the course of our collaboration (24 sessions), his most maladaptive compromises were replaced gradually by more adaptive solutions. For example, Mr. C moved into an apartment after graduating from college. This significant physical and emotional separation resulted from several months of work in which Mr. C's increasing insight into his conflict allowed him to recognize when it was triggered, interrupt what had been an automatic process, and then use the skills he was learning to make conscious choices and create different outcomes. The gains Mr. C made during treatment appeared to endure. Mr. C contacted me twice following termination. Several months after our last session, Mr. C let me know that he retook the LSAT, did not choke, and earned an excellent score. About a year later, Mr. C informed me that he was moving out of the area to begin law school.

## Vignette #2

Mr. R was a 28-year-old mixed martial artist who sought consultation after losing his most recent fight. While Mr. R was favored to win, he was unable to use his formidable skills to finish his opponent when in a highly favorable position to do so. Mr. R was confused by the experience, and worried that it would occur again and derail his career.

In mixed martial arts (MMA), a variety of combat sports are combined. Many athletes have a "base" discipline (e.g., wrestling, boxing, karate) in which they excel, and then train in other ones to complement their skills. Mr. R's specialty was jiu-jitsu, a martial art focused on joint locks and choke holds. Mr. R reported that when he applied what should have been a decisive choke hold, it was like he was in a dream: He moved in slow motion, his arms felt like "lead weights," and he had no grip strength (necessary for securing the hold). Mr. R's opponent escaped the hold, and Mr. R ultimately lost the bout via the judges' decision. (Similar to boxing, MMA rounds are scored.)

According to Mr. R, his symptoms had not occurred previously, either in competition or practice. Exploring the presenting problem revealed that Mr. R was very successful in amateur jiu-jitsu competitions; he also attained early success upon becoming a professional MMA fighter. Mr. R worked his way up the ranking ladder in a regional organization, and the fight in which he choked was an important bout to determine his weight division's number one contender. This was a big opportunity for Mr. R, as the winner would then fight the champion for the title. The most significant recent occurrence, and likely precipitating event, was that Mr. R's father's health had declined precipitously in the weeks prior to the fight. This situation and Mr. R's relationship with his father were explored in detail. Mr. R reported having a "great" relationship with his father, who he described as a "role model."

This is an interesting case because Mr. R was able to mobilize aggression until a certain moment in time. Furthermore, he typically used overt aggression, within the rules of a sport, to pursue his goals. If Mr. R had an underlying conflict with aggression, then why did it not manifest much earlier? Why the sudden onset? Why did Mr. R figuratively choke when attempting to literally choke his opponent?

There was minimal evidence for a task-specific focal dystonia. While Mr. R's competitive fighting was a risk factor for cumulative brain trauma, his symptoms were not consistent with a hyperkinetic movement disorder, and he had no history of involuntary muscle contractions. My formulation focused on a psychodynamic conflict over aggression/competition. Mr. R's amateur jiu-jitsu and professional MMA

success indicated that he learned how to channel his aggression constructively and compete adaptively. His father's recent illness appeared to evoke regressive childhood fears about retaliation and hurting/destroying others. Mr. R previously dealt with these fears by believing that his father could absorb the imagined damage without injury and was so strong/powerful that he would not consider Mr. R a threat. That is, Mr. R believed that so long as his father was healthy, any aggressive and competitive strivings would not result in his father either retaliating or getting hurt. However, once Mr. R's father became ill, this physical vulnerability became frightening. Mr. R commented on how his father looked "frail" and that he feared even hugging him would be injurious. If Mr. R fulfilled his wish to defeat his opponent, then this outcome would be symbolically equivalent to harming his father and/or inviting retaliation from a wounded, resentful foe. The resulting, maladaptive compromise: Mr. R's aggressive and competitive strivings were partially gratified by being in position to win the fight, but he then sabotaged his performance so that a feared outcome did not occur. Mr. R protected himself, and his father, by impairing those physical attributes that would have permitted him to defeat his opponent.

Regarding treatment, Mr. R had first consulted with a sports psychologist but did not find his explanation for what happened satisfying. That psychologist, a CBT colleague who knew of my psychoanalytic orientation, then referred Mr. R to me. Mr. R and I worked together for nine sessions. Four sessions, including the initial consultation, occurred after the referral and were focused on the formulation. Mr. R asked for a written copy so that he could study it. Mr. R was very interested in learning how his mind worked; he was also interested in how I arrived at my interpretations, and asked questions probing their evidentiary and theoretical foundations. (In a sense, Mr. R was "sparring" with me.) Following these discussions, Mr. R felt confident that he understood what had likely caused the choking episode and, having met his primary goal, wanted to stop therapy. At the same time, he was apprehensive about choking again. I recommended that we meet again prior to his next fight, and that the sessions could be part of his training camp. Mr. R liked this idea, and six months later we met for an additional

four sessions while he prepared for the fight, and one postfight session. This was another pressure-filled bout, once more determining the number one contender. Initially, Mr. R reported heightened anticipatory anxiety, centered around a fear of choking. I consistently interpreted Mr. R's conflict over aggression/competition. We discussed how defeating his opponent would not symbolically hurt his father or result in retaliation, that it was safe for Mr. R to compete and demonstrate his competence. Over the course of these sessions, Mr. R's reported that his fear of choking diminished and he just had his usual prefight "jitters." In our postfight session, Mr. R described how he occasionally worried about choking in the days leading up to the fight but understanding the thought's meaning allowed him to "nip it in the bud" and "defuse" it. Most notably, Mr. R used his jiu-jitsu skills to submit his opponent in the first round.

### Discussion

Cognitive-behavioral and neurological factors are necessary but insufficient components of a comprehensive understanding of choking under pressure. First, it is difficult for these approaches to explain the source of an individual's anxiety. Why is the individual so intensely nervous in the first place? In many performance-related situations, the outcome may be life altering; however, few situations are manifestly life *threatening*. While some (e.g., [Altenmüller & Ioannou, 2016](#)) argue that fears of negative social consequences have replaced existential threats, this still leaves important questions unanswered. Why might fears of social consequences be so intense? How did these fears replace existential threats?

Next, it is difficult for cognitive-behavioral factors to account for why, under similar conditions, individuals react very differently. Why do some individuals distract themselves, while others monitor their experiences too explicitly? Furthermore, it is difficult for neurological factors to account for why a focal dystonia would manifest intermittently. For example, a golfer is "yip"-free during practice rounds and the early days of a tournament but becomes afflicted only when he or she is in position to win the event. While some advocates (e.g., [Altenmüller & Jabusch, 2009](#)) argue that an individual's dystonia

may be triggered and/or exacerbated only in high-stress situations, this explanation seems too convenient.

Finally, it is difficult for cognitive-behavioral and neurological factors to reconcile choking's inherent paradoxical nature. Typically, the individual is trained and/or prepared, and *wants* to perform well, yet he or she experiences maladaptive symptoms and engages in counterproductive behaviors, leading to an outcome that is contrary to his or her conscious preference. What purpose is served by this paradoxical outcome?

In the present article, psychoanalytic theory is used to address these explanatory gaps and incongruities. It is argued that choking is the result of an unconscious process involving conflict over fulfilling a psychobiological need/want/striving. Individuals who choke perceive the prospect of attaining their goal as potentially catastrophic, which helps explain both the source and intensity of anxiety. Qualitative differences in how choking manifests are rooted in individuals' personality traits and life span developmental history and are less important than the symbolic meaning of the choking episode. Temporal differences in when choking occurs are rooted in individuals' subjective, latent appraisals of their present circumstances. Some situations are experienced as more stressful because they are perceived to be more dangerous, and therefore are more likely to trigger choking. Although choking appears to be a paradoxical phenomenon, when it is viewed through a psychoanalytic lens, it becomes clear how a conscious wish for success can result in self-sabotaging symptoms and behaviors.

The present article focuses on general psychodynamic factors. It is important to note that an individual's race, culture, ethnicity, religion, gender, economic class, and sexual orientation may each contribute to his or her circumstances, opportunities, and specific psychodynamics. For example, [Holmes \(2006\)](#) argued that actual economic factors (e.g., poverty) and social conditions (e.g., racism) act as external obstacles to competing successfully. Additionally, such factors and conditions become internalized, which act as potent psychological obstacles: "If one is not in the right racial grouping or social class, one is extremely negatively valued, and this valuation often becomes a highly malignant, introjected reality that one should not aspire to

success on any level” (Holmes, p. 219). The present article also necessarily simplifies diagnostic issues and the treatment process for heuristic purposes. Conflicts can exist within complex, co-occurring diagnoses, including mood disorders, personality disorders, and/or substance use disorders. Conflicts can also involve various personality traits (e.g., narcissism, exhibitionism, sadomasochism). These factors invariably complicate the treatment. Psychodynamic psychotherapy is well suited for dealing with many patients’ specific dynamics and diagnostic issues (Shedler, 2010).

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