Available online at www.sciencedirect.com

ScienceDirect

Cognitive and Behavioral Practice 26 (2019) 176-185

Cognitive and Behavioral Practice

www.elsevier.com/locate/cabp

When Is Seeking Safety Functional? Taking a Pragmatic Approach to Distinguishing Coping From Safety

Lauren J. Hoffman, *Columbia University Medical Center*
Brian C. Chu, *Rutgers University*

Currently, most exposure-based treatments call for clinicians to assess for and remove all safety behaviors during exposure tasks. However, the notion that safety behaviors are detrimental across all scenarios has recently been challenged, and research regarding the effects of safety behaviors on exposure outcomes is limited and inconsistent. In clinical practice, classifying a strategy as a safety behavior can be a complex and challenging endeavor, particularly when distinguishing between harmful safety behaviors and helpful coping behaviors. We outline an approach that emphasizes the pragmatic truth criterion and uses functional outcomes to classify behaviors as serving either safety or coping functions. Our focus on doing what "works" simplifies decision-making for clinicians and maintains the focus of treatment on enhancing functioning. We propose a model for using functional outcomes to distinguish between safety and coping behaviors and illustrate our approach through case examples.

Anxiety disorders are ranked second among all mental health disorders across the globe in terms of their impact on occupational/academic, social, and family functioning (Whiteford et al., 2013). The notable impairment associated with anxiety disorders has prompted a growing interest in attempts to best understand and address these conditions (Hedtke, Kendall, & Tiwari, 2009), with recent advances noted in the development of effective, evidence-based treatments. Exposure therapy is currently considered the most effective treatment for anxiety disorders in both youth and adults (Barlow, Ellard, Hainsworth, Jones, & Fisher, 2005; Craske et al., 2008; Hedtke et al., 2009). Exposure therapy involves gradually and repeatedly confronting feared stimuli, without engaging in avoidance, escape, or other behaviors that reduce anxiety and/or make the feared situation more tolerable (e.g., Abramowitz, Deacon, & Whiteside, 2011). The latter class of behaviors is often described as "safety behaviors," which are believed to interfere with learning during exposure in a variety of ways (Salkovskis, 1991; Sloan & Telch, 2002). As such, most exposure-based models, including the inhibitory learning model, encourage clinicians and their clients to monitor for and remove all safety behaviors as consistently as possible (e.g., see Blakey & Abramowitz, 2016, for a review).

Keywords: anxiety; exposure; youth

In clinical practice, it can be challenging to distinguish between harmful safety behaviors (i.e., those that interfere with progress) and helpful coping behaviors (i.e., those that facilitate progress). Lists of commonly encountered safety behaviors are typically included in exposure-based treatment protocols, which can be helpful in providing concrete examples of behaviors to monitor during exposures. However, the simplicity of most safety behavior lists put clinicians at risk for confusing form for function. We outline an approach that encourages clinicians to attend to the function of the behavior, rather than the topography of behavior, in determining which client actions deserve classification as safety behaviors. We argue that taking a pragmatic approach by using functional outcomes to classify exposure behavior will provide clearer rules for distinguishing safety functions (i.e., those that reduce flexible approach behavior) from coping functions (i.e., those that encourage flexible approach behavior).

We believe that this approach is particularly well-suited for children and adolescents (hereafter referred to as youth), as anxious youth present with significant functional impairment across domains, including academic functioning (e.g., poor participation in class; lower attendance), social adjustment (e.g., fewer friendships; lower friendship quality; decreased participation in extracurricular activities), and family relationships (e.g., sibling/parental conflict; (Langley, Bergman, McCracken, & Piacentini, 2004; Roblek & Piacentini, 2005). It is functional outcomes like these that typically serve as target goals in anxiety-based exposures (e.g., talk to group of peers; join one club; ride the subway for four stops). In addition, a focus on concrete outcomes

can help engage youth who may struggle with more abstract, emotionally focused concepts (e.g., tolerating distress). While many of our examples focus on youth populations for these reasons, a focus on function and functional outcomes extends to all ages. Here, we review relevant literature regarding exposure therapy and safety behaviors, propose our model for using functional outcomes to distinguish safety from coping, and illustrate our approach through clinical examples.

Models of Exposure Therapy

Until recent developments, the prevailing theory guiding exposure therapy in cognitive behavioral therapy (CBT) had been Foa and Kozak's (1986) emotional processing theory (EPT). EPT purports that fear extinction occurs when a fear structure is activated (e.g., dogs and the fear of being bitten) and paired with new, corrective information that is inconsistent with the existing fear structure (e.g., petting a dog and not being bitten). EPT originally proposed that exposure therapy is successful when pathological fear associations are replaced with nonpathological associations. EPT initially emphasized level of distress throughout exposure tasks, as it proposed that initial distress is necessary to activate existing fear associations, and reductions in distress (i.e., both within and between-session) provided evidence of "corrective learning" (Foa & Kozak, 1986.) Since its inception, EPT has been influenced by empirical evidence and recent developments in learning theories (e.g., Bouton & Swartzentruber, 1991; Foa & McNally, 1996; Rescorla, 2001). Not only has the importance of habituation been reconsidered (e.g., Craske et al., 2008), but researchers, including Foa and colleagues (2006), have noted that fear associations are not eliminated or replaced, but rather left intact to compete with new, danger-free associations.

The concept of "new learning" is central to Craske's inhibitory learning model (see Craske et al., 2008, and Craske, Treanor, Conway, Zbozinek, & Vervliet, 2014, for a review). In the inhibitory learning model, following exposure, a feared situation is associated with two meanings, one excitatory (i.e., indicating danger) and one inhibitory (i.e., indicating safety). The success of exposure therapy in the inhibitory learning model hinges on the strength and ease of recall of the inhibitory associations. To enhance the creation and strength of such associations, exposures are designed with three main principles in mind: (a) expectancy violation, (b) decontextualization of inhibitory associations (to foster generalization), and (c) distress tolerance. Expectancy violation refers to designing exposures that contradict the anxious individual's expectations about the frequency or intensity of an aversive outcome (e.g., pet a dog and not be bitten), as the discrepancy between expectation and outcome is believed to be critical for new learning to occur (Craske et al., 2014; Rescorla & Wagner, 1972). Decontextualization refers to the importance of conducting exposure tasks in multiple contexts, so that inhibitory associations are generated and activated across situations, times of day, and feeling states (e.g., pet a dog and not be bitten at multiple dog parks, in the morning and at night, and while feeling calm, angry, or anxious). In other words, exposures should be designed to generalize learning across contexts. Lastly, inhibitory learning theory emphasizes the significance of distress *tolerance* rather than distress *reduction*, as toleration of fear catalyzes and strengthens inhibitory associations (Abramowitz & Arch, 2014). As such, the inhibitory learning approach often suggests strategies that are designed to prolong and maximize fear throughout exposure trials (Craske et al., 2014).

Safety Behaviors in Exposure Therapy

One factor that predicts the success of exposures is the degree to which safety behaviors interfere with learning. Safety behaviors are defined as actions that enhance feelings of safety in the presence of a perceived threat (Salkovskis, 1991) and/or behaviors that serve to prevent, escape, or minimize a feared catastrophe (Salkovskis, Clark, Hackmann, Wells, & Gelder, 1999). Safety behaviors can take many forms, including direct avoidance of particular situations (e.g., crowds, caffeine, public speaking, elevators), premature escape from particular situations, and subtler avoidance within anxiety-provoking situations (Salkovskis, Clark, & Gelder, 1996). While direct avoidance and escape may be easy to identify, subtle avoidance behaviors require thorough assessment to recognize and classify as such. For example, individuals with agoraphobia and/or panic disorder may engage in subtle safety behaviors by checking for fire exits or bathrooms when they enter a room; those with generalized anxiety disorder may seek reassurance by asking repeated questions; and individuals with social anxiety disorder may grip the sides of the podium while giving a speech to prevent the appearance of trembling (Sloan & Telch, 2002). Internal processes or cognitive strategies can also be labeled as safety behaviors (Clark, 1999). Examples include a panic disorder patient using distraction to minimize distress or a socially phobic patient cognitively rehearsing a conversation to prevent blunders (Thwaites & Freeston, 2005).

Historically, research has consistently implicated the use of safety behaviors in the maintenance of clinical anxiety. Indeed, it is widely asserted that safety behaviors provide immediate relief (e.g., Hodgson & Rachman, 1972, 1977; Lovibond, Davis, & O'Flaherty, 2000; Rachman, Shafran, Mitchell, Trant, & Teachman, 1996), while serving to sustain anxiety and avoidance in the long run (Rachman, Radomsky, & Shafran, 2008). Cognitive behavioral theorists often point to safety behaviors in

discussing why seemingly irrational fears persist despite disconfirming evidence. Traditional theories posit that engaging in safety behaviors limits anxious individuals' ability to learn from experience, as safety behaviors divert attentional resources away from disconfirming information (Sloan & Telch, 2002) and promote misattributions of safety (Salkovskis, 1991). For instance, an elevator phobia may persist despite repeated experience with catastrophe-free elevator rides if a person relies on singing in his or her head (i.e., diverts attention away from safety cues) or rides with another person and attributes safety to not being alone.

Safety behaviors are particularly problematic from an inhibitory learning approach because they may interfere with the three main principles of exposure therapy discussed above. Specifically, safety behaviors may interfere with the violation of one's negative expectancies, prevent generalization of learning to a variety of contexts, and impede the development of distress tolerance (see Blakey & Abramowitz, 2016, for detailed review). For example, consider a man with OCD with intrusive thoughts of contamination and fears of contracting an illness. If he wears gloves during an exposure task, he is unlikely to be truly surprised that he did not become ill after touching the subway pole (i.e., his negative expectation will not be violated). In addition, a teenager with social anxiety disorder who enters a party with a friend may not be able to complete the same exposure when by herself (i.e., her learning will not generalize across contexts). Lastly, a woman with panic disorder who avoids caffeine in order to prevent rapid heartbeat does not learn that her distress is safe and tolerable.

Is Seeking Safety Always Detrimental?

Based on the above theories, it has been historically asserted that exposure therapy should involve the removal of safety behaviors (Abramowitz et al., 2011; Barlow et al., 2010; Deacon & Abramowitz, 2004). However, recent research has challenged the notion that safety behaviors are detrimental across all scenarios (e.g., Rachman et al., 2008). Some have suggested that safety behaviors can confer several advantages when used appropriately during exposure, including: (a) enhancing the acceptability and tolerability of exposure tasks, therefore reducing treatment refusal and/or dropout (Rachman et al., 2008); (b) facilitating approach behavior by accelerating the rate at which fearful individuals can approach exposure stimuli (e.g., Hood, Antony, Koerner, & Monson, 2010); and (c) promoting self-efficacy and sense of control (Bandura, Jeffery, & Wright, 1974). Recent empirical studies that tested these theories have demonstrated mixed findings. Specifically, while Levy and Radomsky (2014) found that safety behaviors enhanced acceptability and tolerability of exposures, other researchers have not found such an effect (Deacon, Sy, Lickel, & Nelson, 2010; Deacon et al., 2012). Some studies support the notion that participants who use safety gear (e.g., gloves, goggles) approach feared stimuli more closely and more quickly than those who do not (Milosevic & Radomsky, 2008; Milosevic & Radomsky, 2013a, 2013b), though this finding is inconsistent (de Silva & Rachman, 1984; Deacon et al., 2010). Further, while Rachman et al. (1986) and van den Hout et al. (2011) found higher ratings of perceived control in participants who used safety behaviors relative to those who did not, other research has failed to discover this effect (e.g., Deacon et al., 2010; Hood et al., 2010; Milosevic & Radomsky, 2013a, 2013b). Overall, a recent meta-analysis completed by Meulders and colleagues (2016) concluded that the data was "inconclusive" regarding whether safety behaviors should be removed or included during exposure (p. 151). While one can speculate as to how safety behaviors may enhance exposures conducted specifically through an inhibitory learning approach, there is a dearth of research on this topic in particular.

Distinguishing Safety Behaviors From Coping

Given the inconsistent data regarding safety behaviors and exposures, clinicians are left with important questions about how to design the most effective exposure-based treatment. A primary challenge that faces the clinician is identifying which behaviors qualify as safety behaviors. This challenge is particularly vexing when trying to distinguish safety behaviors from what the clinical field typically refers to as coping. Coping behaviors have historically been less well-defined and less well-understood than safety behaviors, making this initial determination complicated. Thwaites and Freeston (2005) defined coping behaviors as something an individual does "in order to reduce anxiety, which does not maintain or worsen future responses to the same stimulus or stimuli" (p. 179). In addition, while safety behaviors seek to "prevent or minimize a feared catastrophe" (Clark, 1999, p. 7), coping behaviors aim to decrease distress, but do not seek to prevent catastrophe from occurring (Thwaites & Freeston, 2005). Thus, coping behaviors have historically been distinguished from safety behaviors by their consequences (i.e., coping behaviors do not have deleterious long-term effect) and their intentions (i.e., coping behaviors are not performed with the intent to prevent harm). From a literal sense, coping and safety behaviors are distinguished definitionally by the outcomes that result from each class of behaviors (safety behaviors interfere with learning; coping behaviors do not).

How can clinicians and their clients tell the difference between coping and safety behaviors? To start, coping and

safety behaviors cannot be distinguished solely based on their topography, or what the behaviors "look" like. Making a list of talking points, carrying a water bottle, or reciting a coping thought prior to giving a speech have nothing inherent in them that mark these behaviors as maladaptive safety behaviors. However, frequently used treatment protocols (e.g., Barlow et al., 2010; Pincus, Ehrenreich, & Mattis, 2008) often include lists of safety behaviors such as these along with warnings that clinicians should monitor for these behaviors as clients complete exposures. Table 1 lists a number of behaviors that frequently make the top "offender" lists of safety behaviors. Each of these behaviors has the potential to act as a safety behavior and interfere with immediate learning, intermediate return of fear, or long-term impingement of functioning. But, each has the potential to be a useful coping tactic, as well. The problem with lists like these is that they often encourage a mistaken belief that the topography of behavior is what defines safety behaviors, rather than the function of the behavior.

Instead of behavior topography, we urge clinicians to use functional outcomes as the ultimate arbiter of classification. According to the pragmatic philosophy of functional contextualism (Biglan & Hayes, 1996; Hayes, Hayes, & Reese, 1988; Pepper, 1942), behavior should be evaluated based on the *pragmatic truth criterion* of "successful working" (Hayes, 1993). The more a behavior produces short- and long-term outcomes, the more that behavior "works" and deserves to be classified as coping. The more that a behavior contributes to a mix of avoidance and rigid learning, the more that strategy does not "work" and is determined to serve safety functions. Table 1 proposes general guidelines for distinguishing between safety and coping functions using this pragmatic approach. We suggest that future lists of safety behaviors include similar guidance for interpreting the function of a given behavior.

As an example, take a college student whose public speaking anxiety prevents him from leading group presentations at school. Practicing presentations with copious notes could play both coping and safety functions. Copious notes could help the young adult feel prepared and result in his engaging in speeches of increasing difficulty and challenge (e.g., length and unpredictability of audience), thus indicating a coping function. Alternatively, the young adult might come to rely on the notes and refuse to engage in speeches that deviate from his plan, thus indicating a safety function. As another example, consider a child whose separation anxiety prevents her from attending sleepover parties. Her parents give her a "special" necklace to wear when away from home. The necklace may serve a coping function insofar as it results in her attending sleepovers of increasing duration and distance from home. By doing so, the child not only accomplishes her goal of sleeping away from home, but she is also provided with opportunities to cultivate meaningful friendships and build important social skills. Conversely, if the child refuses to leave home without her necklace or spends excessive time during sleepovers cleaning her necklace or checking to confirm

Table 1
Commonly Listed Safety Behaviors and Proposed Guidelines for Distinguishing Safety and Coping Functions

Commonly Listed Safety Behaviors	Signs of Safety Function	Signs of Coping Function
• Superstitious behavior or objects (e.g., prayers, talisman, etc.)	**Individual is not able to reach goals. Behaviors *limit* his or her ability to complete tasks and enter situations.**	**Individual is able to reach goals. Behaviors *facilitate* his or her ability to complete tasks and enter situations.**
• Help-seeking or comfort aids (e.g., "safe" person, cell phone, medication, water bottle, stuffed animal, etc.) • Objects that prevent danger (e.g., pepper spray, weapons, nightlight, flashlight, etc.) • Therapy techniques (e.g., coping statements, relaxation, deep breathing, etc.) • Distraction (e.g., counting, repeating mantras, singing a song, etc.) • Perceived neutralizing objects (e.g., hand sanitizer, wipes, etc.) • Protective gear (e.g., gloves, goggles, etc.) • Excessive preparation (e.g., writing a script, taking copious notes, rehearsing, etc.)	• Individual engages in a restricted range of activities. • Individual refuses to encounter feared stimuli without using behavior or object.	• Individual can complete tasks that he or she was unable to complete in the past. • Individual approaches feared stimuli more quickly and/or more completely than in the past.

that it has not fallen off, then wearing the necklace is limiting her functioning and likely to serve a safety function. Lastly, take a socially anxious businessman who drinks alcohol during social situations that require small talk or dancing. While this might appear like a typical example of a safety behavior, one cannot discern if drinking alcohol is actually serving safety functions without an assessment of this individual's functioning. Drinking alcohol may serve a coping function if it allows the man to attend social events he would otherwise decline, does not interfere with his social or work performance, and is not associated with health or safety risks. Alternatively, we may determine that drinking alcohol serves a safety function if the man is not ever able to socially engage without alcohol. If that were the case, this behavior would be too rigid and fail to meet the pragmatic goal of socializing independently (assuming this is the goal). Drinking alcohol may also no longer "work" if it produces new problems for the individual (e.g., he is engaging in risky behavior while drinking) or if it interferes with his performance (e.g., he is drinking during business events). These three examples highlight that all behaviors exist on a continuum from "coping" to "safety" and that classifying a specific behavior as coping or safety does not hinge on the form of the behavior, but on the degree of flexibility with which the behavior is applied and whether it helps the individual approach feared situations and reach desired goals. In all of these cases, we believe functional outcomes and extinction learning to be interrelated; short-term outcome (e.g., attending the sleepover) allows for the potential for extinction learning to occur, which in turn allows for improved functional outcomes (e.g., more sleepovers) and reduced anxiety over time.

The reader will notice that we have not considered the effect the behavior has on distress or the intention with which the client uses the behavior. Traditionally, if a behavior reduces distress during an exposure, that behavior would likely be classified as a safety behavior (Telch & Lancaster, 2012). Similarly, some have stated that the intention of a behavior can be used to determine maladaptive safety behavior (Clark, 1999). Our model challenges those traditional assumptions, as intention and distress can be harder to detect, less stable, and less relevant to clients than ultimate outcome. Moreover, those assumptions imply that one's distress and/or one's intentions are more important than the ultimate outcome (i.e., can the client accomplish the goal they set out to accomplish).

Clinical Application and Examples

We present a decisional flowchart (Figure 1) to guide clinical determination of safety and coping behaviors during exposures. First, clinicians should ask themselves and their clients if the behavior in question is working. Is the person able to achieve his or her goal in multiple contexts and situations? If so, according to the pragmatic truth criterion, the behavior is likely serving coping functions and should be left alone. If not, or if there is partial success, clinicians should conduct further assessment to identify if there is specific "safety behavior trap" to which the client is falling prey. As noted above, safety behaviors may interfere with learning in four potential ways: preventing disconfirmation of anxious beliefs, demanding excessive attentional resources, promoting misattribution of success, and limiting generalization of learning due to rigid use of safety behavior (Blakey & Abramowitz, 2016). If the clinician identifies a "trap" that

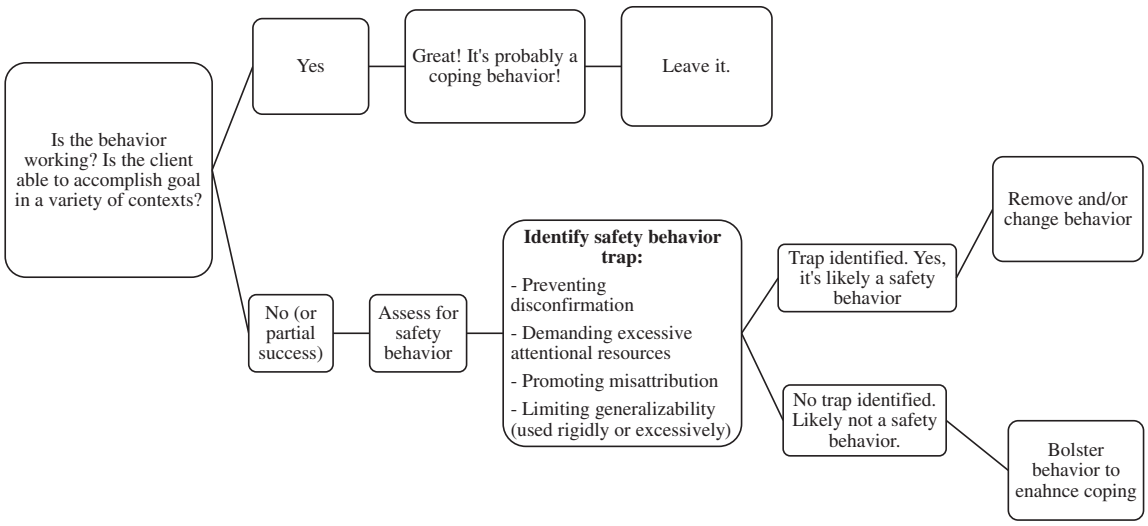

Figure 1. Decisional flowchart for distinguishing safety and coping behaviors.

indicates the behavior is serving safety functions and interfering with learning, the behavior should be removed and/or replaced with an alternative behavior that may serve coping functions. The new behavior should then get evaluated using the same procedure. If no "trap" can be identified, the behavior may not be serving safety functions, but is clearly insufficient in facilitating success. In that case, clinicians should treat the behavior like a coping behavior that needs to be strengthened. The clinician and client should work together to problem solve and continue to practice the skill or behavior and see if outcomes improve. Overall, the pragmatic truth criterion serves as an early-warning sign that helps the therapist and client spot when a behavior is not working. Just as detecting a fever in a medical patient is easier than detecting an underlying bacterial infection, identifying poor functional outcomes is easier than detecting whether a specific safety trap (e.g., preventing disconfirmation, demanding excessive attention) is happening. Either the client is moving towards the desired goal or she/he is not!

It should be noted that we recommend an ongoing assessment process *throughout* treatment (i.e., not just during initial assessment of safety behaviors) to determine if specific behaviors continue to work and/or if new safety behaviors arise during the course of treatment. When roadblocks or impasses in treatment arise, this should be a sign to the clinician that (a) there are behaviors present that once worked, but no longer do so, and/or (b) new or previously undisclosed safety behaviors are present. This is precisely when clinicians are encouraged to engage in the investigative process we outline in Figure 1. If a previously effective strategy worked and then did not, then the therapist and client work to remove or replace it. There is no other way that exposure therapy can proceed. It is always a process of trial-and-error, as safety behaviors and ineffective coping processes are likely to appear as therapist and client become aware of successes and failures in exposure and treatment goals change. As an example of a coping behavior no longer working due to evolving goals, take a school-aged child exhibiting school refusal behavior related to separation anxiety. The strategy of text messaging his father throughout the day might initially "work" to help the youth engage in exposures and reach his initial goal of getting through the door and attending school. Once the youth successfully manages attending school for several weeks, the criteria for success increases. Rather than simply getting through the door, his new goals might focus on increasing flexibility and attending school with and without sending text messages. While the texting behavior worked to meet his initial objective, it is no longer effective in meeting new, more challenging goals. In this case, the previously effective behavior should be evaluated, the specific safety behavior trap should be identified (i.e., in this case, the texting is too rigid and may promote misattribution of success), and the behavior should be systematically phased out.

Table 2 illustrates how clinicians might use the above guidelines to evaluate safety behaviors within the context of the pragmatic truth criterion. Scenarios A–F reflect various ways a youth might attempt to cope with anxiety during an exposure trial to address social anxiety related to going to parties. Each scenario describes an in vivo practice party with same-aged peers conducted during session. The goal for the exposure session is to stay for the entire party session and engage the confederates in conversation. The ultimate goal is for the youth to attend a birthday party to which he has been invited, stay there for at least 2 hours, and talk to three new kids. Across the scenarios, the youth uses several purported coping techniques (support of a friend, using coping statements, carrying a smartphone) that could serve coping or safety functions. The immediate and long-term impact (both distress and functional outcome) are described for each scenario, and specific safety behavior "traps" are identified when attempts to cope appear to be failing. Distress is included in our table, despite not being a criterion by which we classify a behavior as serving a coping or safety function, to illustrate that coping functions can be determined irrespective of distress level during an exposure trial. By contrast, the inhibitory learning approach would define success predominantly by the clinician's ability to maintain high levels of distress throughout an exposure.

Scenario A describes a scenario in which a youth is practicing a party scenario while using the support of a friend. In everyday life, bringing a supportive friend to an unfamiliar setting is a common strategy that can serve safety and coping functions. With the supportive friend, the youth stays in the party scene the entire exposure and engages the other confederates relatively comfortably. After this success experience, the youth ultimately attends the real party, but only for 30 minutes. The youth achieved short-term success during the exposure trial, but the strategy of bringing his friend likely contributed to misattributions for his success (e.g., "I could only do it because my friend was with me"). It also involves inflexible requirements (i.e., presence of a comforting person). Here, the strategy was likely serving safety functions despite the youth participating in an exposure of high intensity and short-term success. Importantly, the topography of the strategy matters not. Whether the purported coping technique is a safety person, rigid rehearsal, carrying a lucky talisman, or repeating a religious mantra, the clinician is encouraged to alter the coping approach because it is mostly failing. Arranging new exposures in diverse contexts with varying levels and types of supports

Table 2
Distinguishing Safety and Coping Functions: Social Anxiety and Party Scenario

Scenario	Behavior during exposure	Distress within/ across exposures	Intra-exposure outcome	Long-term Outcome	Functional Outcome: Did it succeed?	Safety Behavior "Traps"				Safety or Coping Behavior?
						Preventing disconfirmation	Demanding excessive attention	Promoting misattribution	Rigid or excessive	
A	Does practice party session with confederates (same-aged peers) and brings a friend to session as support. Thinks, "I could do it because my friend was here."	Remains high	Stays in "party" scenario and engages others.	Attends party alone. Leaves after 30 minutes.	Minimal	N	N	Y	Y	**Safety:** Rigid requirements creates un-generalizable scenario and attributes exposure success to use of support person.
B	In practice session, checks out sports on smartphone to pass lulls in conversation	Reduces	Stays in "party" scenario all session	Attends party alone; spends 50% time on smartphone.	Partial	N	Y	N	Y	**Possible Safety:** Partial success likely to degrade over time. Smartphone use appears rigid and prevents the youth from attending to safety cues.
C	Practices party with safe confederates (parents, clinic staff).	Remains high	Stays in "party" all session	Attends party; only talks to the one kid he knows well.	Partial	Y	N	N	N	**Possible Safety:** Partial success that may degrade, as the strategy prevents disconfirmation of anxious thoughts that new peers may mock or exclude the youth.
D	Texts friend once before the party to state a coping thought and to get encouragement.	Remains high	Refuses to enter "party" scenario	Does not attend party.	N	?	?	?	?	No clear "trap" is found. Topographically like coping but short- and long-term ineffectiveness suggests strategy is insufficient.
E	Texts friend before the party to state a coping thought and to get encouragement.	Reduces	Stays in "party" scenario	Attends party, interacts with novel child.	Y	N	N	N	N	**Coping:** The youth achieves desired functioning even as *distress reduces.*
F	Texts friend before the party to state a coping thought and to get encouragement.	Remains high	Stays in "party" scenario	Attends party, interacts with novel child.	Y	N	N	N	N	**Coping:** The youth achieves desired functioning even as *distress remains high*.

would help generalize (decontextualize) the learning experience.

Scenarios B and C provide additional examples where coping and safety behaviors can be difficult to distinguish because the youth achieves partial success that is sustained over time (i.e., he is able to stay at the party the whole time). Complete success may be unrealistic to expect, depending on the time frame under observation, but partial success indicates that coping strategies are incomplete at best. Scenario B provides an example where a purported coping strategy may be demanding excessive attentional resources. The youth's continuous focus on his smartphone (to look up sports scores) during the exposure monopolizes the youth's mental resources and prevents him from attending to available safety cues or learning he can tolerate distress (Sloan & Telch, 2002). Focusing on his phone may help him "get through" the distress of lulls in the conversation, but the strategy does not lead to completely functional outcomes at the real party, as he does not engage any new peers in conversation. Scenario C provides an example where the youth's practiced rehearsal with relatively safe confederates (e.g., parents, close friend, clinic staff with whom he has grown comfortable) may set the youth up for partial learning. When he goes to the real party, the youth is able to stay the duration, but he also limits his engagement to one peer he knows well. This approach may help (partially) in the short-term but may degrade over time or fail to generalize because this strategy prevents disconfirmation of negative expectations regarding new peers' behavior (Bouton, 2004; Rescorla & Wagner, 1972). By engaging people he knows well, the youth is unlikely to be truly "surprised" that peers do not mock or exclude him, thus limiting the learning that occurs (Blakey & Abramowitz, 2016). In both scenarios, the youth has learned to attend a party, but the learning is tenuous. Based on the pragmatic truth criterion, partial successes require the therapist to work in two directions. First, it encourages the therapist to isolate possible safety behaviors. Despite the ability to attend parties and stay for the duration, the youth's partial success in scenarios B and C encourage the therapist to localize any safety behavior "traps" that the strategies may be playing and problem solve alternatives with the youth. At the same time, the youth is achieving partial success. According to the pragmatic truth criterion, this is good! Reviewing self-statements and texting a friend may be serving important (if incomplete) coping functions. Thus, the clinician will want to enhance these behaviors and supplement them where they might enhance the coping effect, while also assessing for potential safety traps.

Scenario D describes a common experience for clinicians wherein it is unclear in what ways a coping attempt is failing, but it is clear that the current approach is not succeeding. Having learned coping self-statements, the youth coaches himself to "Just go and be open to pleasant surprises" during exposures and the actual party. He also texts a friend to receive proactive encouragement in the form of, "You got this; just be yourself." The youth enters the party exposure, but leaves after 20 minutes. He then fails to attend an actual party. It is not immediately clear if the youth's self-statements or request for encouragement are preventing disconfirmation of beliefs, demanding excessive attention, promoting misattribution of success, or being applied rigidly. Any of these traps could be true. Or, it could be that the current approach is simply ineffective in helping the youth attend parties. Furthermore, the youth's distress (assessed via SUDS ratings) remained high throughout the experience, but the same outcome could have been observed whether activation fully occurred or did not. Despite the lack of information, the poor short-term (intra-exposure) and long-term (subsequent days) outcomes suggest that the presumptive coping strategy is not sufficient. It is then best clinical practice to work to enhance and/or supplement the coping strategy and see if outcomes improve.

Scenarios E and F provide examples where coping is more evident. Even though these coping attempts appear topographically similar to previous examples, their success in promoting party attendance during exposures and actual parties gives us greater confidence that the strategies are serving coping functions. Intra-exposure distress levels are the only thing that distinguishes the two scenarios. In scenario E, distress reduces over time, whereas in scenario F, it remains high. Each scenario is equally plausible in that the inhibitory learning model does not require that distress remains high throughout an exposure. Rather, it simply postulates that habituation is not necessary for learning to occur (Craske et al., 2008; Craske et al., 2014). In both cases, the positive (functional) outcomes indicate to the clinician that the exposure exercise is working and that the coping strategy is not serving safety functions. It is important to note that it is difficult to confirm that any coping attempts are in truth serving coping functions. However, if they are not negatively impacting functional outcomes, then the coping attempts are at least not serving safety functions. Again, the specific type of behavior is irrelevant to the current discussion. We offered self-statements ("Be open to experiences") and social support as purported coping strategies, because they are often assumed to serve coping functions, but they can just as often serve safety functions (Hedtke et al., 2009). Self-statements and social support could have been replaced with more typical safety behaviors (e.g., lucky talisman, verbal rituals, safety people, etc.) and our supposition would remain—that safety behaviors are defined by the outcomes they produce.

Why is this helpful? Our use of the pragmatic truth criterion provides clinicians with a simpler, likely more observable, criterion by which to judge a strategy's success than identifying safety behaviors up front. A clinician could spend endless time trying to purify a strategy or exposure to expunge any potential safety features. Instead, we encourage trying a number of strategies and seeing which ones work. When they do not work, failure provides opportunities to evaluate which specific contexts or actions are serving safety functions for the individual client. Success encourages continued implementation of strategies even if they may appear topographically similar to traditional safety behaviors.

Conclusion

The current paper proposes a model for using functional outcomes to guide clinical decision-making in distinguishing between safety and coping behaviors. We propose a framework that uses the pragmatic truth criterion to guide decision-making, with an emphasis on doing what "works." We should note that these recommendations are consistent with both emotional processing theory and the inhibitory learning models of exposure therapy. Each approach encourages clinicians to identify and minimize safety behaviors to optimize learning. The two models distinguish themselves in the role that each assigns within- and between-exposure habituation. Our current recommendations offer a method for clinicians to identify safety and coping behaviors without relying on subjective or objective measures of client distress. The pragmatic truth criterion provides a more stable and relevant index by which client effectiveness can be judged.

As such, we question the utility of lists of common safety behaviors and encourage clinicians to assess a behavior's function rather than its form. We suggest that any behavior can serve either coping or safety functions, depending on whether it supports approach or facilitates avoidance of feared situations. Using functional outcome (i.e., whether or not the individual reached his or her goal) as the ultimate arbiter of success simplifies decision-making for clinicians and keeps the focus of our treatments on enhancing functioning across domains. The focus on functional outcome also tells clinicians when to stay the course and when to try a new approach. If a client is not able to reach his or her goals or engages in a restricted range of activities, a reassessment of strategies and behaviors used during exposure is warranted. This is true even if an explanation for why the strategy isn't working cannot be found, as the reason for why it's failing matters less than the presence of a failed outcome. Similarly, if a client's use of a particular behavior enables him or her to get closer to a range of feared stimuli, we urge clinicians to leave the behavior alone and resist urges to remove and/or replace it, even if it "looks" like a commonly listed safety behavior.

References

Abramowitz, J. S., & Arch, J. J. (2014). Strategies for improving long-term outcomes in cognitive behavioral therapy for obsessive-compulsive disorder: insights from learning theory. *Cognitive and Behavioral Practice*, *21*(1), 20–31. https://doi.org/10.1016/j.cbpra.2013.06.004

Abramowitz, J. S., Deacon, B. J., & Whiteside, S. P. (2011). *Exposure therapy for anxiety: Principles and practice*. New York: Guilford Press.

Bandura, A., Jeffery, R. W., & Wright, C. L. (1974). Efficacy of participant modeling as a function of response induction aids. *Journal of Abnormal Psychology*, *83*(1), 56–64. https://doi.org/10.1037/h0036258

Barlow, D. H., Farchione, T. J., Fairholme, C. P., Ellard, K. K., Boisseau, C. L., Allen, L. B., & May, J. T. E. (2010). *Unified Protocol for Transdiagnostic Treatment of Emotional Disorders: Therapist guide*. New York: Oxford University Press. https://doi.org/10.1093/med:psych/9780199772667.001.0001

Barlow, J. H., Ellard, D. R., Hainsworth, J. M., Jones, F. R., & Fisher, A. (2005). A review of self-management interventions for panic disorders, phobias and obsessive-compulsive disorders. *Acta Psychiatrica Scandinavica*, *111*(4), 272–285. https://doi.org/10.1111/j.1600-0447.2005.00499.x

Biglan, A., & Hayes, S. C. (1996). Should the behavioral sciences become more pragmatic? The case for functional contextualism in research on human behavior. *Applied and Preventive Psychology*, *5*(1), 47–57. https://doi.org/10.1016/s0962-1849(96)80026-6

Blakey, S. M., & Abramowitz, J. S. (2016). The effects of safety behaviors during exposure therapy for anxiety: Critical analysis from an inhibitory learning perspective. *Clinical Psychology Review*, *49*, 1–15. https://doi.org/10.1016/j.cpr.2016.07.002

Bouton, M. E. (2004). Context and behavioral processes in extinction. *Learning & memory*, *11*(5), 485–494. https://doi.org/10.1101/lm.78804

Bouton, M. E., & Swartzentruber, D. (1991). Sources of relapse after extinction in Pavlovian and instrumental learning. *Clinical Psychology Review*, *11*(2), 123–140. https://doi.org/10.1016/0272-7358(91)90091-8

Clark, D. M. (1999). Anxiety disorders: Why they persist and how to treat them. *Behaviour Research and Therapy*, *37*, S5–S27. https://doi.org/10.1016/S0005-7967(99)00048-0

Craske, M. G., Kircanski, K., Zelikowsky, M., Mystkowski, J., Chowdhury, N., & Baker, A. (2008). Optimizing inhibitory learning during exposure therapy. *Behaviour Research and Therapy*, *46*(1), 5–27. https://doi.org/10.1016/j.brat.2007.10.003

Craske, M. G., Treanor, M., Conway, C. C., Zbozinek, T., & Vervliet, B. (2014). Maximizing exposure therapy: An inhibitory learning approach. *Behaviour Research and Therapy*, *58*, 10–23. https://doi.org/10.1016/j.brat.2014.04.006

de Silva, P., & Rachman, S. (1984). Does escape behaviour strengthen agoraphobic avoidance? A preliminary study. *Behaviour Research and Therapy*, *22*(1), 87–91. https://doi.org/10.1016/0005-7967(84)90038-X

Deacon, B. J., & Abramowitz, J. S. (2004). Cognitive and behavioral treatments for anxiety disorders: A review of meta-analytic findings. *Journal of Clinical Psychology*, *60*(4), 429–441. https://doi.org/10.1002/jclp.10255

Deacon, B. J., Lickel, J. J., Possis, E. A., Abramowitz, J. S., Mahaffey, B. G., & Wolitzky-Taylor, K. (2012). Do cognitive reappraisal and diaphragmatic breathing augment interoceptive exposure for anxiety sensitivity? *Journal of Cognitive Psychotherapy*, *26*(3), 257–269. https://doi.org/10.1891/0889-8391.26.3.257

Deacon, B. J., Sy, J. T., Lickel, J. J., & Nelson, E. A. (2010). Does the judicious use of safety behaviors improve the efficacy and acceptability of exposure therapy for claustrophobic fear? *Journal of Behavior Therapy and Experimental Psychiatry*, *41*(1), 71–80. https://doi.org/10.1016/j.jbtep.2009.10.004

Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, *99*(1), 20–35. https://doi.org/10.1037/0033-2909.99.1.20

Foa, E. B., & McNally, R. J. (1996). Mechanisms of change in exposure therapy. In R. M. Rapee (Ed.), *Current controversies in the anxiety disorders* (pp. 329–343). New York: Guilford Press.

Foa, E. B., Huppert, J. D., & Cahill, S. P. (2006). Update on emotional processing theory. In B. O. Rothbaum (Ed.), *The nature and treatment of pathological anxiety* (pp. 3–24). New York: Guilford Press.

Hayes, S. C. (1993). Analytic goals and the varieties of scientific contextualism. In S. C. Hayes, L. J. Hayes, H. W. Reese, & T. R. Sarbin (Eds.), *Varieties of scientific contextualism* (11–27). Reno, NV: Context Press.

Hayes, S. C., Hayes, L. J., & Reese, H. W. (1988). Finding the philosophical core: A review of Stephen C. Pepper's World Hypotheses: A study in evidence. *Journal of the Experimental Analysis of Behavior, 50*(1), 97–111. https://doi.org/10.1901/jeab.1988.50-97

Hedtke, K. A., Kendall, P. C., & Tiwari, S. (2009). Safety-seeking and coping behavior during exposure tasks with anxious youth. *Journal of Clinical Child & Adolescent Psychology, 38*(1), 1–15. https://doi.org/10.1080/15374410802581055

Hodgson, R. J., & Rachman, S. (1972). The effects of contamination and washing in obsessional patients. *Behaviour Research and Therapy, 10*(2), 111–117. https://doi.org/10.1016/S0005-7967(72)80003-2

Hodgson, R. J., & Rachman, S. (1977). Obsessional-compulsive complaints. *Behaviour Research and Therapy, 15*(5), 389–395 http://doi.org.ezproxy.cul.columbia.edu/10.1016/0005-7967(77)90042-0

Hood, H. K., Antony, M. M., Koerner, N., & Monson, C. M. (2010). Effects of safety behaviors on fear reduction during exposure. *Behaviour Research and Therapy, 48*(12), 1161–1169. https://doi.org/10.1016/j.brat.2010.08.006.

Langley, A. K., Bergman, R. L., McCracken, J., & Piacentini, J. C. (2004). Impairment in childhood anxiety disorders: Preliminary examination of the child anxiety impact scale–parent version. *Journal of Child and Adolescent Psychopharmacology, 14*(1), 105–114. https://doi.org/10.1089/104454604773840544

Levy, H. C., & Radomsky, A. S. (2014). Safety behavior enhances the acceptability of exposure. *Cognitive Behaviour Therapy, 43*(1), 83–92. https://doi.org/10.1080/16506073.2013.819376

Lovibond, P. F., Davis, N. R., & O'Flaherty, A. S. (2000). Protection from extinction in human fear conditioning. *Behaviour Research and Therapy, 38*(10), 967–983. https://doi.org/10.1016/S0005-7967(99)00121-7

Meulders, A., Van Daele, T., Volders, S., & Vlaeyen, J. W. (2016). The use of safety-seeking behavior in exposure-based treatments for fear and anxiety: Benefit or burden? A meta-analytic review. *Clinical Psychology Review, 45*, 144–156. https://doi.org/10.1016/j.cpr.2016.02.002

Milosevic, I., & Radomsky, A. S. (2008). Safety behaviour does not necessarily interfere with exposure therapy. *Behaviour Research and Therapy, 46*(10), 1111–1118. https://doi.org/10.1016/j.brat.2008.05.011

Milosevic, I., & Radomsky, A. S. (2013a). Incorporating the judicious use of safety behavior into exposure-based treatments for anxiety disorders: A study of treatment acceptability. *Journal of Cognitive Psychotherapy, 27*(2), 155–174. https://doi.org/10.1891/0889-8391.27.2.155

Milosevic, I., & Radomsky, A. S. (2013b). Keep your eye on the target: Safety behavior reduces targeted threat beliefs following a behavioral experiment. *Cognitive Therapy and Research, 37*(3), 557–571. https://doi.org/10.1007/s10608-012-9483-2

Pepper, S. C. (1942). *World hypotheses: A Study in Evidence*. Berkeley, CA: University of California Press.

Pincus, D. B., Ehrenreich, J. T., & Mattis, S. G. (2008). *Mastery of Anxiety and Panic for Adolescents Riding the Wave, Therapist Guide*. New York: Oxford University Press. https://doi.org/10.1093/med:psych/9780195335804.001.0001

Rachman, S., Craske, M., Tallman, K., & Solyom, C. (1986). Does escape behavior strengthen agoraphobic avoidance? A replication. *Behavior Therapy, 17*(4), 366–384. https://doi.org/10.1016/S0005-7894(86)80069-7

Rachman, S., Radomsky, A. S., & Shafran, R. (2008). Safety behaviour: A reconsideration. *Behaviour Research and Therapy, 46*(2), 163–173. https://doi.org/10.1016/j.brat.2007.11.008

Rachman, S., Shafran, R., Mitchell, D., Trant, J., & Teachman, B. (1996). How to remain neutral: An experimental analysis of neutralization. *Behaviour Research and Therapy, 34*(11), 889–898. https://doi.org/10.1016/S0005-7967(96)00051-4

Rescorla, R. A. (2001). Experimental extinction. In R. R. Mowrer & S. B. Klein (Eds.), *Handbook of contemporary learning theories* (119–154). Mahwah, NJ: Lawrence Erlbaum Associates.

Rescorla, R. A., & Wagner, A. R. (1972). A theory of Pavlovian conditioning: Variations in the effectiveness of reinforcement and nonreinforcement. In A. H. Black & W. F. Prokasy (Eds.), *Classical conditioning II: Current research and theory* (64–99). New York: Appleton-Century-Crofts.

Roblek, T., & Piacentini, J. (2005). Cognitive-behavior therapy for childhood anxiety disorders. *Child and Adolescent Psychiatric Clinics of North America, 14*(4), 863–876. https://doi.org/10.1016/j.chc.2005.06.001

Salkovskis, P. M. (1991). The importance of behaviour in the maintenance of anxiety and panic: A cognitive account. *Behavioural Psychotherapy, 19*(01), 6–19. https://doi.org/10.1017/S0141347300011472

Salkovskis, P. M., Clark, D. M., Hackmann, A., Wells, A., & Gelder, M. G. (1999). An experimental investigation of the role of safety-seeking behaviours in the maintenance of panic disorder with agoraphobia. *Behaviour Research and Therapy, 37*(6), 559–574. https://doi.org/10.1016/S0005-7967(98)00153-3

Salkovskis, P. M., Clark, D. M., & Gelder, M. G. (1996). Cognition-behaviour links in the persistence of panic. *Behaviour Research and Therapy, 34*(5), 453–458. https://doi.org/10.1016/0005-7967(95)00083-6

Sloan, T., & Telch, M. J. (2002). The effects of safety-seeking behavior and guided threat reappraisal on fear reduction during exposure: An experimental investigation. *Behaviour Research and Therapy, 40*(3), 235–251. https://doi.org/10.1016/S0005-7967(01)00007-9

Telch, M. J., & Lancaster, C. L. (2012). Is there room for safety behaviors in exposure therapy for anxiety disorders? In P. Neudeck & H. Wittchen (Eds.), *Exposure therapy* (313–334). New York: Springer. https://doi.org/10.1007/978-1-4614-3342-2_18

Thwaites, R., & Freeston, M. H. (2005). Safety-seeking behaviours: Fact or function? How can we clinically differentiate between safety behaviours and adaptive coping strategies across anxiety disorders? *Behavioural and Cognitive Psychotherapy, 33*(02), 177–188. https://doi.org/10.1017/S1352465804001985

van den Hout, M. A., Engelhard, I. M., Toffolo, M. B., & van Uijen, S. L. (2011). Exposure plus response prevention versus exposure plus safety behaviours in reducing feelings of contamination, fear, danger and disgust. An extended replication of Rachman, Shafran, Radomsky & Zysk (2011). *Journal of Behavior Therapy and Experimental Psychiatry, 42*(3), 364–370. http://doi.org.ezproxy.cul.columbia.edu/10.1016/j.jbtep.2011.02.009

Whiteford, H. A., Degenhardt, L., Rehm, J., Baxter, A. J., Ferrari, A. J., Erskine, H. E., ... Burstein, R. (2013). Global burden of disease attributable to mental and substance use disorders: Findings from the Global Burden of Disease Study 2010. *The Lancet, 382*(9904), 1575–1586. http://doi.org.ezproxy.cul.columbia.edu/10.1016/S0140-6736(13)61611-6

The authors declare that there are no conflicts of interest.

Address correspondence to Lauren J. Hoffman, Psy.D., Columbia University Clinic for Anxiety and Related Disorders, 3 Columbus Circle, Suite 1425, New York, NY 10019; e-mail: LHoffman919@gmail.com

Received: May 20, 2017
Accepted: November 30, 2018
Available online 11 January 2019