Transition-Related Problem Behavior

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Introduction

Resistance to change or insistence on sameness is one of the core features of autism spectrum disorder (ASD), characterized by extreme emotional outbursts or challenging behavior in response to even small changes in the environment (American Psychiatric Association, 2013). Results of factor-analytic studies suggest that resistance to change is a higher-order response pattern that is separate and distinct from lower-order repetitive behavior (e.g., motor stereotypies). Higher-order response patterns, such as compulsivity (i.e., behavior that is repeated often and follows specific rules) and sameness behavior (i.e., resistance to change or insisting that things stay the same), are prevalent among children with ASD.

Research shows that change-resistant behavior occurs across multiple contexts (Joseph et al., 2013) and will stay the same or worsen over time if left untreated (Neil & Sturmey, 2014; Richler et al., 2010). Children may display resistance to change with their daily routines or schedules, with the physical environment, activities, or location, to name a few. For example, a child might insist on following specific routes to and from a given destination or completing certain activities before transitioning to new ones. Wing and Gould (1979) found that 94% of children with ASD had a history of elaborate routines versus 2% of children without ASD. In addition, Lam and Aman (2007) determined, based on the results of 302 surveys completed by caregivers of children with ASD, that 77% of their children engaged in challenging behavior during transitions and had difficulties with changing to new activities.

Given that transitions represent a common period of change that can be challenging for many individuals, researchers have evaluated the conditions in which problem behavior occurs and the strategies that may help to mitigate or treat problem behavior in these contexts. Luczynski and Rodriguez (2015) defined a *transition* as the period of time or the process during which one activity, event, or stimulus context ends and another begins. Further, Luczynski and Rodriguez identified that transitions could be structurally broken down into three parts that include: "(a) termination of the pre-change context, (b) initiation of the post-change context, and (c) the period between the two contexts" (p. 153). Transitions could involve a physical change in location, such as walking from the classroom to the school cafeteria or could require that the child follow specific directions to restore the environment to its previous state (e.g., stow away toys) or prepare for the next event (e.g., retrieve toothbrush and paste). Transitions could involve a cue or signal, could occur as part of the child's regular daily routine, or could involve an unexpected change of events.

We use the term transition-related problem behavior (TRPB) to encompass the many challenging topographies of problem behavior that have been reported in the literature. These include disruptions (e.g., negative vocalizations, property destruction; Deshais et al., 2018), uncooperative behavior (e.g., flopping to the ground, tantrums; Schreibman et al., 2000), severe destructive behavior (e.g., aggression; Waters et al., 2009), and elopement (e.g., running or wandering away; Lehardy et al., 2013), to name a few. In school settings, administrators have reported severe problems such as fighting between students, theft, or harassment (Taylor-Greene et al., 1997). According to Colvin et al. (1997), 50% of challenging behavior that occurs during the school day occurs in non-classroom settings at times that students are transitioning from one activity to the next.

There are several environmental factors that may contribute to the development and maintenance of TRPB. Children with ASD may engage in TRPB if the transition involves a novel change from the typical routine, especially if that change was unexpected or not signaled. It could be that predictability is automatically reinforcing for children with ASD and the presentation of sudden or novel changes creates an aversive context. Problem behavior also may be maintained by (a) access to the appetitive stimuli (e.g., attention, toys) that were present in the original context, (b) escape from the putative aversive stimuli (e.g., homework) present in the new context or in the period between contexts (e.g., physical movement from one location to the next), (c) a combi-

nation of these factors, or (d) automatic reinforcement (e.g., physical movement itself). For example, transitions that involve having to relinquish highly preferred items to proceed to a less preferred activity might evoke TRPB. Transitions requiring effort or compliance with non-preferred movements, such as having to clean a play area or walk up a flight of stairs, may also result in problem behavior.

Transition periods can be further complicated by the physical elements of the transition environment. For example, transitions that involve a change in location often occur in settings that are potentially unsafe (e.g., stairwells and doorways) or prone to limited supervision or structure (e.g., crowded hallways, bathrooms; Colvin et al., 1997). Colvin et al. reported that teachers may experience challenges with facilitating transitions in part because expectations during the transitionary period may not be clear or may differ from one setting to the next (e.g., it is appropriate for the child to engage in loud vocalizations outdoors but not indoors).

TRPB can present numerous safety risks and can result in significant impairment. Self-injury, aggression, and property destruction can cause harm to the child, others, or the surrounding environment. Problem behavior in general, and TRPB specifically, can be stigmatizing for the child and could interfere with opportunities for learning and social interaction (Varni et al., 1979). Teachers have reported difficulties with regaining instructional control following instances of TRPB (e.g., running, shoving, screaming) that occurred during transitions to and from the classroom (Colvin et al., 1997), which could be problematic for the child's learning environment or serve as a distraction for others. Challenging behavior that occurs because of change may discourage caregivers from attempting to present novel activities or stimuli or avoiding the change altogether. Because that transitions or unexpected changes to routines are inevitable, caregivers may experience anxiety or frustration in these situations.

Elopement, defined as leaving a safe and/or supervised area without caregiver permission (Lehardy et al., 2013), occurs in approximately 25–50% of children with ASD, and is commonly reported during transition-related events. Elopement poses serious safety risks, such as the possibility of drowning incidents, traffic-related injuries, or abduction. According to a recent epidemiologic study by Guan and Li (2017), individuals with ASD are at much greater risk of drowning-related deaths which could be due, in part, to the prevalence of elopement behavior. Anderson et al. (2012) found that 49% of caregivers of children with ASD reported at least one elopement attempt after 4 years of age, with 26% of those children missing long enough to cause concern. Of those who went missing, a majority were identified as encountering dangerous situations that could have potentially resulted in injury or death. In addition, caregivers report elopement as a significant source of anxiety and stress (Anderson et al., 2012).

The problematic, and in some cases life-threatening, consequences highlight the importance of addressing TRPB. Developing effective prevention, assessment, and intervention strategies is critical because life is often unpredictable and avoiding change is nearly impossible (Boyd et al., 2012; Leekam et al., 2011). Given the prevalence of TRPB among children with ASD, the aim of this chapter is to review current research involving assessment and treatment strategies and discuss considerations for treatment selection and future research. We begin by describing the conceptual, behavior-analytic foundations of TRPB.

The Development of Transition-Related Problem Behavior

Basic behavioral research has shown that certain types of transitions reliably disrupt operant behavior. In a now seminal study on behavior across different transition types, Perone and Courtney (1992) arranged four general types of transitions which varied the duration (in seconds) of grain access for pigeons' keypeck responses on fixed-ratio schedules of reinforcement. Under

test conditions, prior reinforcer magnitudes were either small or large (e.g., 0.5 s or 7.5 s of grain access, respectively), and upcoming reinforcer magnitudes were equally small or large. Thus, the birds experienced transitions of the following reinforcer magnitudes: small–small, small–large, large–small, large–large. Additionally, the researchers programmed differing reinforcer magnitudes to test the generality of responding under more and less extreme differences in reinforcer magnitudes. For example, in one test condition, the small magnitude was 2 s, and the large magnitude was 6 s, whereas in another test condition, the small magnitude was 0.5 s, and the large magnitude was 7.5 s. Responding under the test conditions was compared to responding under a control condition in which past and upcoming reinforcer magnitudes were equal (e.g., 4 s of grain access for each).

Perone and Courtney (1992) first examined transition behavior when transitions were unsignaled using a mixed schedule of reinforcement. Under this arrangement, the response key was lit with a constant color, and the pigeons were unable to determine in advance whether the upcoming reinforcer magnitude was small or large. The researchers found that unsignaled transitions disrupted responding more (i.e., more pausing before initiating the next ratio run) when the past reinforcer magnitude was large rather than when it was small, suggesting that events that transpire before a transition partly determine responding during the transition. Additionally, the authors found that more reinforcing past events disrupted behavior more so than less reinforcing past events, as pausing was most pronounced across the test conditions when pigeons recently completed a ratio run that produced the largest magnitude reinforcer programmed.

In the same study, Perone and Courtney (1992) extended these already impressive findings by examining the effects of signals on transition behavior. The researchers used the same general framework described above and converted the unsignaled (mixed) schedules of reinforcement to signaled (multiple) schedules in which small and large reinforcer magnitudes were correlated with distinct colors (i.e., blue and yellow for one bird, blue and white for another bird). The researchers found that superimposing these event-correlated stimuli came to control transition behavior in another way—pigeons' responding became sensitive to the upcoming event in addition to the past event. Thus, the researchers concluded that "pausing between ratios is jointly determined by two competing factors: past conditions of reinforcement and stimuli correlated with upcoming conditions" (Perone & Courtney, 1992, p. 33).

The important work of Perone and Courtney (1992) has been replicated numerous times since its publication and has been extended by others to encompass different types of transitions (e.g., fixed-interval schedules), other problematic topographies of transition behavior (e.g., aggression), and different species (e.g., humans; Pitts et al., 2019; Toegel & Perone, 2022; Wade-Galuska et al., 2005; Williams et al., 2011; Williams et al., 2019). Indeed, the collective findings from the literature on this topic have shown such considerable replicability and generality that Wade-Galuska et al. (2005) concluded regarding their findings, "In concert with previous research,…(our) results support the general proposition that behavior is disrupted by abrupt, discriminable transitions from favorable to unfavorable schedule conditions, across a range of subjects and operational definitions of favorability" (Wade-Galuska et al., 2005, p. 91). Other researchers have convincingly shown that such rich–lean transitions are aversive with pausing during rich–lean transitions being conceptualized as avoiding or escaping aversive aspects of the transition (Langford et al., 2019; Langford et al., 2021; Pitts et al., 2019; Williams et al., 2019; see Perone, 2003 for discussion on the aversive effects of positive reinforcement). These findings that mirror early work by Azrin et al. (1966) on extinction-induced aggression occasioned by alternating periods of reinforcement and extinction and other work by Mulvaney et al. (1974) and Jwaideh and Mulvaney (1976) on the aversive functions of stimuli correlated with extinction and the lower of two signaled rates of reinforcement, respectively.

Extending this understanding of the aversive properties of some transition types to the development of TRPB in individuals with ASD is relatively straightforward. Initially, schedule-induced behavior (e.g., pausing or general noncompliance with instructions to transition, emotional responding, tantrums, and/or aggression) may be elicited from signaled transitions that involve a worsening of reinforcement conditions (e.g., transitions from the playground to the classroom at school or to a parent's vehicle). Teachers or caregivers upon observing such problematic, schedule-induced behavior after initiating the transition may "give in" to the child by delaying or otherwise altering the upcoming transition to escape the child's problem behavior (i.e., a negative reinforcement contingency; Allen & Warzak, 2000). This may take the form of postponing a scheduled time to transition, changing the upcoming activity or location (e.g., "Okay. We will stop for ice cream on the way home."), or perhaps making available previously restricted competing stimuli (e.g., allowing the child to watch their favorite cartoons in the car) to ease the transition. When such modifications occur in the presence of problematic, schedule-induced behavior, the child may learn to emit similar responses during future difficult transitions. Thus, noncompliance, emotional responding, tantrums, and aggression may take on an operant function. This dual respondent–operant function of TRPB makes identifying effective strategies for dealing with it safely and for discouraging its occurrence even more imperative.

Proactive Strategies for Children with Autism Spectrum Disorder

Even prior to assessment or treatment of TRPB, practitioners and caregivers can use antecedent-based strategies to prevent the development of TRPB or minimize risk. Antecedent-based manipulations also could serve as a mediating strategy to maintain child safety and promote awareness while practitioners assess the functional variables that maintain TRPB to identify effective treatment (Phillips et al., 2018). When designing antecedent-based strategies, practitioners should consider the role of establishing operations and whether changes can be made to the physical environment to promote cooperation or reduce the likelihood of TRPB. Safety equipment or increased monitoring and security systems represent a set of strategies that might effectively minimize risk (Andersen et al., 2020; McLaughlin et al., 2020). In the following section, we review several promising antecedent-based strategies for TRPB.

Modifications to the Physical Environment

Caregivers could adjust the physical environment to decrease the likelihood of TRPB or increase children's safety during transitions. If practitioners can identify the events that commonly occasion TRPB or ways in which the physical setting could be arranged differently, adjusting the physical environment could serve as a relatively simple or straightforward strategy. For example, if a teacher's vocal instruction to line up at the door after lunch results in one child's elopement, the teacher could arrange for the child to be seated at a table closest to the door and refrain from issuing the instruction until they are in close proximity to the child to block elopement attempts.

Andersen et al. (2020) surveyed caregivers of children with ASD to learn more about the strategies they use to prevent or decrease their child's elopement or the associated risks. Modifications to the physical environment were among the highest rated strategies in terms of their perceived effectiveness, cost, and level of effort to implement. Modifications included increasing the number of physical barriers around the home, such as adding door or window locks or outdoor fencing. Of these, the antecedent manipulations that caregivers reported to be most effective with the least amount of burden or effort included yard fencing and window locks. Other low-effort, inexpensive modifications could include re-arranging the

physical setting, such as creative positioning of desks in the classroom or furniture in the home and ensuring that all doors are closed with locks that are placed outside of the child's reach (Fisher et al., 2013).

Practitioners should consider caregiver preference for and willingness to use the various strategies involving physical modifications to the environment. For example, fire codes could prevent the locking of certain doors or moving furniture to areas that could block entrance and exit points. Expense represents another critical factor that might affect caregiver use of environmental modifications. Based on the caregiver reports from Andersen et al. (2020), physical modifications ranged in price, but overall were not as costly as other recommended approaches (e.g., acquiring a service animal). Although yard fencing could serve as a costly endeavor, families reported frequent use of fencing, perhaps because it served multiple purposes and was worth the added cost. In our clinic, we actively involve social workers as part of a multidisciplinary treatment team to determine mechanisms by which caregivers can access important financial and physical resources to assist in this area.

Increasing Security, Monitoring, and Awareness

Location-signaling technology such as electronic tracking devices or global positioning systems (GPS) may be useful to minimize specific types of TRPB, such as elopement or to decrease associated risks (McLaughlin et al., 2020). Tracking devices may not prevent or stop elopement from occurring in the moment, but they could be helpful in reducing caregiver stress given that they can provide real-time feedback regarding child location. If caregivers could track the child more consistently, they could better prevent the child from eloping to potentially dangerous areas (e.g., swimming pools). However, surveys of caregivers indicate less buy-in for technological methods of reducing elopement (Andersen et al., 2020; Kiely et al., 2016; McLaughlin et al., 2020). For example, in their survey of caregivers of children with ASD, McLaughlin et al. (2020) found that caregivers' reasons for not using electronic tracking devices included possible child discomfort with application, increased effort to prompt the child to wear the device, or that it was too costly, and Kiely et al. (2016) found that caregivers were six to ten times more likely to use physical over technological modifications to reduce elopement.

In addition to physical modifications to the environment or use of tracking devices, caregivers sometimes employ strategies to increase awareness in case a child became lost, such as identification shoe tags or bracelets (Andersen et al., 2020). Advocacy groups have developed resources for caregivers of children who frequently elope, such as The National Autism Association's comprehensive safety guide known as the "Big Red Safety Toolkit" (National Autism Association, 2014). This digital resource includes information on creative home safety precautions, wearable devices, and measures to increase community awareness. One product our clinic has used for children who have difficulty tolerating identification wearables is temporary safety tattoos (e.g., http://www.safetytat.com/), which can last up to two weeks at a time. Children may prefer these products due to incorporation of cartoon characters and similarity to temporary tattoos used in leisure activities (e.g., birthday party favors), and caregivers report preferring this type of identification mechanism because it cannot be easily removed.

Given that TRPB commonly occurs in schools, researchers have evaluated various antecedent-based strategies to reduce or prevent TRPB in these settings (Colvin et al., 1997; Deshais et al., 2018). Colvin et al. evaluated a school-wide antecedent-based intervention involving active supervision and a pre-correction procedure. Colvin et al. defined the active supervision component as supervisors displaying overt and specific behavior, such as turning their head to actively scan the room or closely escorting children from one location to the next. The pre-correction procedure involved verbal reminders or warnings and various role-play or practice opportunities that teachers prompted children to

do before or outside of the actual transition period. This resulted in improvements in adult supervision child transitions.

Colvin et al.'s (1997) study may have larger implications for teachers who experience challenges during transitions throughout the school day. Researchers should continue to evaluate interventions to increase staff attentiveness, proximity to, and interactions with children as they transition, to minimize unsupervised or unstructured periods. Colvin et al. indicated that these interventions required little training time for staff members (e.g., 15 min) and had other beneficial effects, such as allowing teachers to start the subsequent classes that followed transitions on time. These researchers proposed that active supervision practice (e.g., continuous scanning of the room, interacting and engaging with children) was more important than the total number of supervising individuals. This finding is noteworthy if it can save school districts time and funds that would typically be allocated to hiring and training additional team members to minimize problematic transition periods.

Assessment of Transition-Related Problem Behavior

The first step in addressing behavioral challenges during transitions is to evaluate the conditions in which these challenges occur. Interviewing relevant stakeholders and conducting observations in the natural environment to determine the topographies of TRPB and when the behavior occurs are important. Before conducting a functional analysis, direct observation of the behavior may allow the identification of certain patterns that can inform the arrangement or setup of test conditions. For example, if TRPB often occurs when a teacher prompts a student to transition to math class, math work could be presented during the escape test condition of a functional analysis.

If TRPB includes wandering or elopement, it may be useful to identify common response or movement patterns. Jessel et al. (2016) designed a transition assessment to evaluate child responding between rich and lean schedules of reinforcement by dividing a room into two, 2-m by 2-m areas between which the participants had to physically transition. The path between the two contexts was a straight line, but when researchers observed that participants did not always move in a straight line, they followed the participants to draw the path and identify patterns of wandering. When the transition was from a lean-to-rich schedule of reinforcement, the participant did not wander or pause and transitioned according to a relatively direct path. When the transition was from a rich-to-lean schedule, the participant frequently walked to other points in the room, especially toward his mother (who was in the same room) or walked in circles before transitioning to the section of the room associated with the lean schedule of reinforcement. A similar approach could inform practitioners when wandering or elopement occur, but also potentially if wandering and elopement are directed in the area of a certain item, person, or activity, such as it was for the participant in Jessel et al. (2016).

Functional Analysis of Transition-Related Problem Behavior

As behavior analysts, we focus on identifying the variables maintaining challenging behavior so we can select the most appropriate function-based treatment; TRPB should be assessed similarly. Practitioners should aim to arrange safe and efficient assessments that will lead to the most parsimonious results. Challenges that are specific to transitions, such as the role of multiple contingencies on behavior (e.g., behavior multiply controlled by social negative and positive reinforcement in the form of escape from the transition and access to previous activities), should be considered when developing assessments. As noted by Luczynski and Rodriguez (2015), when caregivers report difficulties with transitions, it is unlikely they experience these challenges during every small stimulus change that occurs throughout the day. Alternatively, it is likely that caregivers encounter problem behavior during transitions that involve the termination of a given activity to the onset of a completely

different activity. Nevertheless, to avoid superfluous treatment components that could result from incorrectly identifying a function as part of a synthesized anaylsis, practitioners should exhaust efforts to rule out whether TRPB is maintained by single or multiple contingencies by first examining contingencies in isolation before combining them.

Results of interviews with caregivers to identify functions of behaviors are often inaccurate (Dracobly et al., 2018; Saini et al., 2020). In addition, it may be problematic to use complicated assessments if they lead to more complicated treatment packages. More complicated treatments, which include contingencies that may not be function-based, may require unnecessary time and effort, or may result in an intervention that is too challenging for caregivers to maintain with high fidelity (Kirkwood et al., 2021). Traditional functional analyses (Iwata et al., 1982/1994) may be sufficient to capture the variable(s) maintaining challenging behavior during transitions and identify a straightforward intervention. For example, traditional functional analyses could identify when child TRPB is maintained by social positive reinforcement (e.g., access to previous, preferred activity) and then design an intervention that involves access to the preferred activity contingent on appropriate behavior during transitions. If the results of traditional functional analyses are undifferentiated, practitioners could develop or use additional assessment tools. Only a handful of studies have found automatically maintained TRPB (e.g., Piazza et al., 1997). However, if caregivers report a tendency for TRPB to occur regardless of adult consequences, it may be worth running a series of consecutive alone or ignore sessions within a safe environment to observe if TRPB maintains in the absence of social consequences prior to a multielement functional analysis.

Alternatives to Traditional Functional Analyses

Traditional functional analyses may not be sufficient if the antecedents for TRPB involve both the termination of an activity and the presentation of a new activity. In addition, if practitioners are unable to ensure safety precautions while conducting more traditional functional analyses, they may look to the literature for examples of other variables to assess or consider (e.g., Blowers et al., 2020; Flannery & Horner, 1994; McCord et al., 2001). In the case of behavior that is jointly maintained by social negative and positive reinforcement, practitioners may not observe differentiation between the isolated test conditions and the control and therefore will need to design a condition to test for combined contingencies. In combined test conditions, practitioners could identify activities that when terminated, most often evoke TRPB through initial observations in the natural environment or caregiver interviews. In the test condition, the practitioner would terminate the activity and present the transition-related stimulus (e.g., vocal statement that it is time to do homework, picture card identifying the walk to the classroom). Contingent on the first instance of TRPB, the practitioner would end the transition and represent the original activity.

A traditional functional analysis may not be sufficient if the antecedents for the problem behavior are specific to the physical movements involved in the transition. For example, the demand to physically move between activities may be the antecedent for TRPB. McCord et al. (2001) tested physical movement as an antecedent. To arrange this test condition, McCord et al. created identical pre- and post-transition contexts to serve as a neutral location. During the assessment, researchers vocally instructed the individual to physically move 7–10 m from the pre- to the post-transition context, to determine whether the demand for the individual to engage in physical movement during the transition evoked problem behavior. If the individual engaged in problem behavior during the transition, researchers physically guided them back to the pre-transition context. McCord et al. compared this test condition to extended sessions conducted in a neutral context without physical movement.

If researchers suspect that physical movement is aversive and the individual engages in TRPB to

escape or avoid physical movement but do not observe differentiated patterns of responding in the above assessment, they might consider assessing combined contingencies. See McCord et al. (2001) for additional helpful examples for how to test specific pre-and post-transition contexts both with and without physical movement during the transition. For example, one test condition might include a neutral pre-transition context as well as a demand in the post-transition context. In this arrangement, researchers could test one condition that involves physical movement to one that does not. Contingent on TRPB, the researcher would return the participant to the previous context. As Boyle and Adamson (2017) noted in their review of elopement literature, many may assume that the function of TRPB, such as elopement, is maintained by escape. However, these authors found that elopement was most often maintained by social positive reinforcement in the form of access to tangibles and preferred activities, and second, to attention. McCord et al. tested for different positive reinforcement contingencies by separating them out in different pre-transition contexts; one context included attention, another a preferred toy, and the third, a preferred food. However, for some individuals the type of attention maintaining challenging behavior during transitions could be more idiosyncratic and not captured in a typical attention test condition. For example, if a child flops or refuses to move, a caregiver could repeat verbal prompts or physically move the child; if the child elopes, the caregiver could chase the child.

Most caregivers will undoubtedly follow their child if they elope away in public areas. This adult behavior is unlike the traditional forms of attention delivered in a functional analysis (e.g., reprimands, soothing attention) but could be a potent consequence for TRPB like elopement. Blowers et al. (2020) conducted an assessment to determine if attention in the form of chase maintained elopement for a child diagnosed with ASD. They conducted the assessment in a 60-m long by 4-m wide hallway which they divided into three sections. The sections were marked with a red piece of construction paper to allow the authors to easily identify when elopement occurred (i.e., elopement was defined as 50% or more of the child's body crossing a red marker while running). The results indicated that adult chasing maintained elopement. This experimental procedure may be useful for identifying a function of TRPB when caregivers or practitioners suspect attention in the form of retrieval attempts.

Individuals with ASD may also engage in TRPB as one type of resistance to change. Therefore, neither the pre- and post-transition activities nor the physical movement between the transitions may evoke challenging behavior. Rather, the change in events may serve as the evocative stimulus for TRPB. Some researchers believe that the unpredictability of a transition is the aversive stimulus for individuals with ASD because their insistence on sameness inherently increases the predictability of their daily routine (Luczynski & Rodriguez, 2015). Flannery and Horner (1994) conducted an assessment to determine if predictability impacted challenging behavior for two individuals with ASD. They used the participants' normal academic schedule as the control condition. They then tested whether problem behavior would increase when the schedule of activities was random and not signaled and when the schedule was random but predictable because the activities were listed out and a timer was provided. Using a reversal design, Flannery and Horner found that problem behavior increased when the schedule was random and unpredictable. This supports the hypothesis that some individuals with ASD may exhibit TRPB when disruptions occur to the predictable sequence of events.

Safety Considerations

Special consideration should be given to the arrangement of all assessments for TRPB, especially for topographies of behavior such as elopement or dropping to the ground. Using trial-based or latency-based assessments may help to reduce the number of times the therapist must retrieve and/or reset the individual, which can confound

the results due to the added attention (Phillips et al., 2018). Using a contingency reversal, like in Blowers et al. (2020), meant that chase and retrieval were available for each trial during the elopement assessment, no matter the condition. Therefore, the authors did not often need to use another method to return the child to the starting point for the next trial because it was part of the reinforcer. Boyle and Adamson (2017) found that most studies assessing elopement used retrieval procedures after reinforcement intervals. In the event that the individual does need to be reset to some starting point before initiation of the subsequent trial, practitioners should consider how and who is ensuring the individual returns to a starting location. For example, Blowers et al. used a second therapist to reset the child to the starting point if needed. Phillips et al. provided an example diagram for how to arrange a functional analysis of elopement in a school-based setting without requiring that another adult retrieve the student, creating a way that each trial could begin in the location that the previous trial ended. Boyle and Adamson (2017) also referenced a study by Lehardy et al. (2013) that used as similar strategy. Lehardy et al. (2013) divided a room in half with a piece of tape on the ground and following the reinforcement interval, the therapist moved to the side of the room that the participant was in instead of moving the participant.

There are various topographies of TRPB that could be dangerous to the individual or others if assessments are not designed with the risks in mind. Blowers et al. (2020) conducted their assessment in a hallway with closed doors at either end, which may not be ideal for preventing the child from eloping to other parts of the building and required an additional therapist present who could prevent the child from leaving the hallway. Consideration should be given to the method used by Lehardy et al. (2013), who were able to conduct a functional analysis of elopement in one room by dividing the room into two areas with tape and found that these results were no different than when they used two rooms to conduct the assessment. Jessel et al. (2016) used a similar arrangement in which they divided one room into equal 2-m by 2-m quadrants; instead of tape, the researchers used different colored mats to denote the areas, which also acted as a multiple schedule because they were evaluating transitions between schedules of reinforcement. This arrangement could be beneficial in that the assessment can be done in one room, and the physical movement between contexts is minimal and consistent. Finally, we previously discussed proactive strategies such as technology for tracking movement; such strategies should be incorporated into the assessment if TRPB is risky or dangerous and there is a potential for retrieval to go awry.

Treatment of Transition-Related Problem Behavior

A distinguishing feature of behavior analysis is its emphasis on the function of behavior in addition to its structure or topography. Indeed, a wealth of research has shown that function-based interventions for problem behavior are more effective at treating problem behavior than non-function-based interventions (e.g., Kuhn et al., 1999). Below, we describe two general classes of intervention for TRPB (treatments for socially reinforced TRPB and those for automatically reinforced TRPB) as well as safety-skill teaching strategies irrespective of function. Regardless of treatment approach, we highly encourage behavior analysts to continue the safety precautions during treatment, particularly if addressing riskier forms of TRPB.

Socially Reinforced Transition-Related Problem Behavior

Advanced Warnings and Visual-Activity Schedules

When possible and appropriate, providing advanced notification or warnings of upcoming transitions could help to minimize TRPB. For example, providing a vocal (“five more minutes and then it’s time to go inside”) or physical (sign

or picture) cue that a specific activity is about to end could make the forthcoming transition more predictable and, therefore, less aversive for children who demonstrate change-resistant behavior. Researchers have found that the use of visual activity schedules (e.g., images showing a sequence of events in the individual's day) meets the standard for evidence-based practice for increasing adaptive behavior (Knight et al., 2015) and is effective for reducing TRPB (Lequia et al., 2012). For example, Schmit et al. (2000) implemented a modified picture-schedule system along with verbal cues to reduce one child with ASD's TRPB across three school settings. The photograph displayed an image of the setting and activity that was forthcoming, and the verbal cue included an instruction followed by the name of and location for the next activity (e.g., "Time to go to reading class in the library"). Across all three transition settings, researchers observed decreases in TRPB (i.e., tantrums) and increases in the child's cooperation with instructions.

Despite the wealth of studies supporting the use of advanced warnings and visual activity schedules, some studies have produced mixed findings for reducing TRPB. For example, Cote et al. (2005) determined that verbal warnings (e.g., "3 minutes until homework") and noncontingent access to preferred items (i.e., toys) were not effective at increasing three children's cooperation during transitions relative to escape extinction. Although extinction was necessary, Cote et al. reported enhanced effects in the treatment condition involving combined antecedent and extinction-based components. It could be that for some children, the warning stimulus itself could evoke TRPB if the forthcoming transition involves a worsening in the condition (e.g., transitioning to a nonpreferred activity or removal of a reinforcer), in line with the concept of the reflexive conditioned motivating operation described by Laraway et al. (2003). Nevertheless, providing advance notice represents a straightforward intervention approach that can serve as an initial strategy in a least-to-most hierarchy addressing TRPB. For more information, we refer readers to the extensive systematic reviews and tutorial papers on this procedure (Banda et al., 2009; Knight et al., 2015; Lequia et al., 2012; Rutherford et al., 2020).

Noncontingent Reinforcement

Noncontingent reinforcement (NCR) is another commonly used intervention for TRPB (Boyle & Adamson, 2017). NCR involves providing access to reinforcement irrespective of the individual's behavior and, conceptually, functions to reduce target behavior by minimizing its establishing operation or displacing it with reinforcement of other responses (Carr et al., 2000). In combination with extinction, it is likely that continuous presentation of reinforcement can also disrupt the response-reinforcer relationship (Carr et al., 2000). Though it may be difficult to ascertain the precise mechanism responsible for NCR's effects, several studies have reduced TRPB with NCR. As an example, Piazza et al. (1997) evaluated the elopement of a boy whose diagnoses included ASD. This child was reported to elope into areas and engage in risky behavior such as touching electrical cords and climbing on windowsills. As suggested by these anecdotal reports, the functional analysis indicated that elopement was maintained in part by access to tangible items (e.g., string located in a separate room). During treatment, Piazza et al. implemented NCR without extinction by providing continuous access to string-like items (e.g., shoelaces) in one room while still allowing elopement to occur to access the tangible items in the other room. Despite continued reinforcement for elopement, this NCR arrangement treated his TRPB successfully and was extended to caregivers in the home and teachers in the school.

Of course, continuous access to items is not always feasible and could be distracting to other siblings or students. Researchers have gradually thinned NCR during treatment of TRPB while maintaining good treatment effects (e.g., Kamlowsky et al., 2021). Another option is to provide NCR in the target context (e.g., the context previously associated with lean reinforcement conditions) at the onset of treatment rather than continuously at the start of the transition.

This might not be possible for all topographies of TRPB, such as dangerous elopement that fails to decrease in the absence of immediate access to reinforcement. However, Jessel et al. (2016) demonstrated a compelling and practical treatment option for less risky TRPB. In one experiment of this study, Jessel et al. found that three children with ASD exhibited more dawdling (i.e., longer transition durations) during rich-to-lean transitions compared to lean-to-rich transitions. To decrease dawdling, the authors programmed an opaque "mystery toy" bin in the lean context in which items associated with the rich condition were available during half of transition trials. These same preferred activities remained visible during lean-to-rich transitions. This arrangement produced moderate decreases in dawdling for two participants and a modest decrease for the third. This promising strategy warrants additional research to determine ways of thinning probabilistic reinforcement further, potentially combining intervention options for individuals who have difficulty relinquishing highly preferred items, and incorporating considerations for more dangerous TRPB (e.g., elopement). Nevertheless, behavior analysts considering NCR might integrate the probabilistic and concealed-item arrangement to thin NCR and make the treatment more practical.

Differential Reinforcement of Other Behavior and Alternative Behavior

Differential reinforcement of other behavior Two forms of differential reinforcement have been commonly used to treat TRPB in the literature. During differential reinforcement of other behavior (DRO), behavior analysts deliver reinforcement following the omission of target behavior for a certain amount of time. The mechanisms responsible for treatment effects have been discussed differently but likely incorporate aspects of extinction and negative punishment (if resetting the DRO following target behavior; Vollmer & Iwata, 1992) and potentially adventitious reinforcement of other behavior (Hangen et al., 2020). Despite ambiguity regarding the process responsible for change, DRO has been effective at reducing TRPB. For example, Piazza et al. (1997) treated TRPB that was multiply controlled by attention and access to edible items. During treatment, Piazza et al. implemented a 50-s DRO in which they offered a choice between 20-s attention or a small amount of chips following the absence of TRPB (i.e., attempts to elope from target area). They then made the DRO more practical by thinning reinforcement (55 s of attention or 25 s of chips following 5 min without TRPB) and conducting sessions in areas TRPB was likely to occur (e.g., hospital cafeteria, restaurants in the community).

Differential reinforcement of alternative behavior Another differential-reinforcement approach is to deliver reinforcement following a specific appropriate response rather than after an absence of TRPB. This strategy, differential reinforcement of alternative behavior (DRA), has been used to treat TRPB while increasing adaptive behavior. Because teaching and increasing specific appropriate behavior is likely a goal for many individuals with ASD, the use of DRA is a compelling alternative to NCR or DRO. As an example of its use, McCord et al. (2001) incorporated DRA when treating the TRPB of two individuals. One individual used a wheelchair and displayed self-injurious behavior when asked to move the wheelchair independently. The other displayed self-injurious behavior when asked to pick up items or move locations. McCord et al. used DRA to deliver access to preferred edibles for each individual following movement in the wheelchair and walking to pick up items, respectively. A combination of DRA with extinction and response blocking reduced TRPB for both participants, even when thinning reinforcement by requiring longer spans of appropriate behavior. Taken together, differential reinforcement represents a favorable option for treating TRPB. Indeed, in one of few consecutive case series analyses of behavioral treatments for elopement (which included data sets in which behavior failed to respond to treatment), Call et al. (2017) reported promising findings for

reducing elopement with DRO or DRA, although additional procedures (e.g., punishment, response cost) were sometimes used to facilitate these effects.

Functional Communication Training

A deficit in communication skills is a hallmark symptom of ASD (American Psychiatric Association, 2013). Despite the efficacy of NCR, DRO, and some versions of DRA, none of these specifically address this deficit. Functional communication training (FCT) is a DRA-based intervention in which the alternative response is a communication request such as a vocal request or card exchange (Carr & Durand, 1985). FCT is the most commonly used treatment for socially reinforced problem behavior (Tiger et al., 2008), as has been the most published intervention for TRPB like elopement (Boyle & Adamson, 2017). Typically, behavior analysts implement FCT with extinction, which has resulted in meaningful decreases in problem behavior and increases in communication skills across many large, independent samples of individuals (Greer et al., 2016; Jessel et al., 2018; Rooker et al., 2013).

As described in tutorial papers on FCT (e.g., Greer et al., 2018), the steps are generally as follows: (a) the behavior analyst presents the establishing operation for problem behavior, (b) the behavior analyst then immediately prompts the communication response, such as by physically guiding a motor response or modeling a vocal response, and (c) the behavior analyst then delivers reinforcement immediately following the communication response regardless of whether it was prompted or independent. If problem behavior remains low, the behavior analyst can gradually delay the prompt for the communication response (e.g., 2 s, 5 s, 10 s) to allow independent communication responses to occur. For example, if an individual's TRPB is maintained by access to escape from a forthcoming activity (e.g., going to the restroom), the behavior analyst would (a) instruct the individual to go to the restroom, (b) immediately prompt the individual to ask for a break, and (c) provide a break for a period of time following the communication request. If feasible, extinction for TRPB would likely facilitate treatment effects.

As described with NCR, it is unreasonable to expect caregivers to accommodate every communication request with reinforcement. This is particularly true for transitions because most daily activities must continue to make meaningful gains in educational settings and address biological needs. For example, an adult might be able to provide a brief break from transitioning to the restroom, but it would be unsanitary and detrimental to the individual to avoid toileting or diapers changes entirely. Thankfully, reinforcement-schedule thinning during FCT has been researched extensively, offering multiple options for thinning reinforcement. Although practical, traditional delays to reinforcement that some might use with children without an ASD diagnosis (e.g., saying, "Nice asking but you need to wait" and then delivering reinforcement at a later time) sometimes fail to maintain low levels of problem behavior and can weaken newly learned communication responses (e.g., Hanley et al., 2001). Two other options have been investigated extensively, both of which circumvent many issues of traditional delay schedules.

Probabilistic delays During probabilistic delay-and-denial training (Hanley et al., 2014), a proportion of communication responses produce immediate reinforcement whereas others produce either time-based or contingency-based delays to reinforcement. Resuming our escape-maintained TRPB example, this might entail initiating a restroom transition on a few occasions but delivering immediate reinforcement for the communication requests but then requiring either the passage of time (e.g., 30 s) or a specific response (e.g., entering the restroom, emitting a tolerance response like "OK") prior to delivering a break on other occasions. This type of schedule-thinning arrangement has been successful at reducing reinforcement deliveries while maintaining low levels of problem behavior and optimal rates of communication requests, as well as increasing other adaptive behavior (Ghaemmaghami et al., 2016; Jessel et al., 2018).

Reinforcement thinning during those delay trials can be increased gradually (e.g., 30 s, 60 s) or rapidly (e.g., increasing from 8-min delay trials to 20-min denial probes; Rose & Beaulieu, 2019). Interested readers should consult Fig. 2 in Jessel et al. (2018) for an example schematic of this procedure and the Practical Functional Assessment website (https://practicalfunctionalassessment.com/) for tutorials and worksheets.

Multiple and chained schedules The second heavily researched option for thinning reinforcement during FCT is the use of multiple or chained schedules (Greer et al., 2016; Hanley et al., 2001). When using FCT with multiple and chained schedules, behavior analysts arrange at least two reinforcement schedules for communication responses, with at least one of the schedules always in effect and each correlated with a specific stimulus (e.g., colored cards or wristbands). Most commonly, these interventions arrange two schedules: (a) continuous reinforcement for communication responses in one component and (b) extinction for communication responses in the other component (Saini et al., 2016). In both multiple and chained schedules, the reinforcement component tends to end following the passage of time (e.g., 60 s of reinforcement). In multiple schedules, the extinction component generally ends following the passage of time (e.g., 240 s) whereas a response requirement like compliance with academic instructions (e.g., completing 4 worksheets) terminates it in a chained schedule.

As with probabilistic delay-and-denial training, schedule thinning can occur gradually (e.g., increasing the extinction component from 2 to 4 s in a multiple schedule; Greer et al., 2016; Hanley et al., 2001) or rapidly (e.g., increasing the extinction component from 60 to 240 s; Betz et al., 2013; Fuhrman et al., 2016). Regardless of thinning progression, the goal of these arrangements is to develop stimulus control over communication requests such that they occur exclusively during periods in which caregivers indicate reinforcement is available. For example, if TRPB is maintained by attention, a caregiver would present the extinction-correlated stimulus (e.g., a yellow card) while guiding the child to the next activity and withholding attention for any communication requests during that time. After the passage of time (e.g., 30 s) or the completion of a response requirement (e.g., walking to the dinner table), the caregiver would then present the reinforcement-correlated stimulus (e.g., a blue card) and deliver attention for communication requests at this time. These interventions have been highly successful at reducing problem behavior, establishing discriminative control over communication responses, and reducing the amount of reinforcement delivered by caregivers (e.g., Greer et al., 2016). Interested readers should consider the many tutorials and book chapters on these interventions (Fisher et al., 2015a; Greer et al., 2018; Mitteer et al., 2020; Saini et al., 2016) for procedural details.

Treatment Selection and Considerations

Efficacy of interventions All of the aforementioned interventions have been effective at treating socially reinforced TRPB. Thus, it may be challenging to determine which treatment approach is most relevant for a given client. In terms of efficacy, some systematic reviews have found more positive outcomes for FCT than NCR when treating TRPB maintained by social-positive reinforcement (Boyle & Adamson, 2017). However, there is a paucity of within-subject comparative analyses of treatment approaches for TRPB. Additionally, almost no studies report data for TRPB treatments across a large sample of individuals in a manner that limits publication bias (e.g., consecutive case series designs; Hagopian, 2020). We encourage behavior analysts to evaluate these treatment approaches in a systematic way to disseminate to others in the field.

Goals and practicality of the intervention It is best practice to consider the goals and prefer-

ences of the individual and stakeholders (e.g., caregivers, teachers) when selecting a treatment. From a practicality standpoint, NCR is probably the easiest intervention to implement in that behavior analysts simply deliver reinforcement on a time-based schedule irrespective of monitoring TRPB. NCR is likely the least-restrictive intervention, as well, due to the individual having access to the maximum amount of reinforcement without periods of extinction or resetting DRO intervals. Nevertheless, NCR might fail to reduce TRPB meaningfully or teaching specific replacement behaviors may be an important skill for the individual and stakeholders. It may be that behavior analysts find a combination of treatment approaches (e.g., FCT with noncontingent access to alternative activities during schedule thinning) to be warranted. Collaborating closely with individuals and stakeholders might help behavior analysts find that right balance between efficacy and practicality.

Treatment signals during FCT If using FCT, one consideration for selecting between reinforcement-schedule thinning options is to understand the relevance of discriminative stimuli for maintaining either low levels of problem behavior, ideal rates of communication responses, or both. For example, Fisher et al. (2015b) treated TRPB in a multiple-baseline-across-contexts design. The authors compared the use of discriminative stimuli when implementing FCT with multiple schedules to a comparable FCT arrangement without such treatment signals (i.e., a mixed schedule). Although extinction was effective at reducing TRPB across FCT treatments, communication responses were disrupted in the condition without discriminative stimuli. Ideal levels of communication responses (i.e., occurring readily during reinforcement components and not during extinction components) then transferred rapidly to new contexts. Further, researchers have demonstrated that such treatment signals can mitigate the relapse of problem behavior during common treatment challenges, such as prolonged periods of reinforcement unavailability, whereas comparable unsignaled treatment arrangements might not (Fisher et al., 2020; Fuhrman et al., 2016). Thus, use of discriminative stimuli during FCT may be warranted for some individuals with ASD whose TRPB recurs or whose communication responses extinguish during traditional unsignaled delay periods.

Extinction and response blocking Likely, the most difficult aspect of treating TRPB is implementing extinction with high treatment integrity. Consider a large-statured student who drops to the ground when asked to leave the playground and transition back to the classroom. Assuming his TRPB is maintained by continued access to the playground, escape from the classroom, or both, it may be impossible for smaller-statured teachers or staff to implement high-quality extinction by physically guiding the student back to the classroom or preventing access to the playground equipment. Blowers et al. (2020) described a child with ASD whose elopement was maintained by attention in the form of adults chasing him. One can imagine that, in most cases, caregivers would be unable to allow elopement to occur without retrieval, particularly in public areas. At the very least, it is likely that response blocking (e.g., preventing dangerous TRPB from occurring despite potential reinforcement) will be an integral safety with dangerous forms of TRPB. We refer readers to the many papers on modifying reinforcement parameters of target and alternative responses to address problem behavior without extinction (Lalli et al., 1999; MacNaul & Neely, 2018; Rajaraman et al., 2022; Trump et al., 2020). For example, one could provide more immediate, higher-magnitude, and higher-quality reinforcement for appropriate behavior than TRPB to encourage response allocation toward appropriate behavior.

Automatically Reinforced Transition-Related Problem Behavior

Compared to the above section on socially reinforced TRPB, there is a paucity of studies on treating automatically reinforced TRPB. In their systematic review of publications on assessing and treating elopement, Boyle and Adamson (2017) found only two reported cases with automatic reinforcement and neither included a treatment analysis. In our own search, we identified only two studies demonstrating treatment of automatically reinforced TRPB, though behavior analysts can likely extend the literature on treating other forms of automatically reinforced problem behavior to TRPB contexts.

Piazza et al. (1997) found that a child's elopement occurred across all functional-analysis conditions and persisted in the ignore condition, suggesting that elopement was automatically reinforced. In a follow up reinforcer assessment, the authors observed that the child would frequently select a card to access the opportunity to run freely. However, when offered choices between running and access to adult attention, the child selected the latter reinforcer. Informed by these data, Piazza et al. then developed a DRA-based intervention in which appropriate walking next to an adult resulted in reinforcement and response blocking prevented successful elopement (i.e., extinction). Piazza et al. began DRA by reinforcing brief, 5-s bouts of appropriate walking with a choice between response cards corresponding to attention (e.g., vocal praise, high-fives) or running next to the adult. The authors then used a token system to thin reinforcement such that 30 s of appropriate walking yielded one token equivalent to 15-s access to attention or running, with a token-exchange opportunity after 5 min of walking. Appropriate walking maintained at near-perfect levels across the evaluation.

In another published study on treating automatically reinforced TRPB, Boyle et al. (2019) assessed elopement of a 6-year-old girl with ASD named Abby. Her caregiver reported concerns of Abby running into narrow areas like supermarket aisles during outings, which made retrieval difficult. Boyle et al. used a multielement FA to evaluate instances of elopement within a hallway, which emulated the narrow aisles in which Abby tended to elope. Abby's elopement occurred across all test conditions and maintained during consecutive ignore sessions, suggesting that elopement was maintained, at least in part, by automatic reinforcement.

Treatment was similar to Piazza et al. (1997) and consisted of DRA, though the authors further specified this as differential reinforcement of incompatible behavior due to appropriate walking being incongruent with elopement. Boyle et al. provided a rule and then allowed Abby to run within a controlled setting following a requisite amount of appropriate walking. Because Abby's caregiver requested an intervention without response blocking, extinction was not programmed, and Abby could elope at any point during the trial. Boyle et al. successfully increased the duration of appropriate walking and these gains maintained when the authors extended treatment to other areas of the building (e.g., atrium).

Despite these positive outcomes, it will be important for behavior analysts to consider the feasibility of using access to the functional reinforcer for TRPB (e.g., running) to reinforce appropriate transition behavior, especially when the family is in public settings or unsafe areas. Shifting preferences to more practically delivered reinforcers like in Piazza et al. (1997) might be preferable, as is exploring alternative treatment options. Taking away some of the unique contextual variables with TRPB (e.g., using separate rooms such that it can occur), behavior analysts should be able to extend common treatments for other forms of automatically reinforced problem behavior to these cases. As described earlier, NCR can be an effective treatment for socially reinforced TRPB. This intervention approach has wide support for treating other forms of automatically reinforced problem behavior (e.g., Rooker et al., 2018). Interestingly, Abby's FA data in Boyle et al. (2019) show that elopement never occurred during the 5-min play (i.e., control) sessions. Thus, NCR with the highly preferred items and attention programmed during the play condition may have resulted in a successful treatment, potentially without the limitations of the DRA-based intervention. We encourage practitioners to consider NCR in the treatment of automatically maintained TRPB by following approaches used for other

forms of problem behavior (e.g., informing NCR with a competing stimulus assessment, incorporating additional teaching procedures if NCR alone is insufficient; Haddock & Hagopian, 2020).

Teaching Safety Skills

As noted above, we as practitioners can teach a number of important skills to individuals with ASD to decrease the occurrence of TRPB. Despite our best efforts, the individual may encounter situations in which TRPB results in separation from caretakers or known acquaintances. For example, a caregiver might implement an FCT intervention with extinction to great success 99% of the time; however, it only takes one occasion for continuous monitoring or extinction to be unfeasible to result in life-threatening risk (e.g., if the child bolts into a busy crowd at a theme park while the caregivers attend to the child's sibling). As every parent knows, even momentarily losing track of one's child can be a terrifying experience. Having that occur with a child with ASD could be an incredibly difficult situation because skill deficits may delay retrieval (Carlile et al., 2018). Proactive teaching of safety skills is important for any individual with ASD but especially for individuals with TRPB.

One such target skill is seeking help from other adults when separated from caregivers. Researchers have taught a variety of help-seeking topographies to individuals with ASD, such as leveraging technology to contact caregivers (e.g., Carlile et al., 2018; Taylor et al., 2004) to recruiting nearby adults for assistance (e.g., Bergstrom et al., 2012; Carlile et al., 2018). For example, Bergstrom et al. (2012) used a treatment package consisting of rules, role play, and praise to teach three children with ASD a sequence of help-seeking behavior. This sequence consisted of calling out for the child's caregivers (e.g., "Mom!") and then identifying a store employee and informing them of being lost. This approach was effective at teaching help-seeking behavior, with extension of teaching effects to untaught locations. In a more recent example, Carlile et al. used a video-modeling package to teach multiple help-seeking topographies to six children with ASD. Similar to Bergstrom et al., the authors taught the children to seek out an adult but then hand over an identification card. Additionally, children in this study acquired the skill of contacting their caregivers using a video-call application on a cell phone. Both interventions, conducted initially in a school setting, maintained across weeks and extended to untaught situations and settings. Children with ASD also may be at increased risk of dangers like abduction when in the community (Abadir et al., 2021). Researchers have used strategies such as video modeling and behavioral skills training to teach abduction-prevention skills to children with ASD (Abadir et al., 2021; Berube et al., 2021). For example, Berube et al. taught children to say "No" and leave the area following a lure attempt and Abadir et al. taught children to request a code word from the individual before accompanying them. We encourage behavior analysts to consider this literature and tailor safety skills to the client's repertoire and the family's resources (e.g., availability of technology) should TRPB ever result in separation from caretakers.

Conclusion

In this chapter, we provided an overview of how to safely assess and treat challenging behavior associated with transitions. As we discussed, these transitions may incorporate more than just physical movement from one point to another; instead, transitions can be viewed as when environmental conditions change, with such resistance to change being a hallmark of ASD. We provided a description of how these sorts of transitions can be evaluated within a functional analysis and to do so with maximum safety when assessing TRPB like elopement. There are many treatment approaches with empirical support, including NCR, DRO, DRA, and FCT. We encourage researchers to conduct more within-subject comparisons of treatment options for TRPB to understand each intervention's relative efficacy. For now, we urge behavior analysts to consult with the individual with ASD, their stakeholders, and the dynamic literature base to determine the ideal treatment arrangement for each client. Finally, for all individuals with TRPB

and especially those with risky topographies like elopement, teaching safety skills and assisting caregivers in locating safety resources (e.g., GPS trackers) will be important components of a larger approach to treatment.

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