

*ASSESSMENT AND TREATMENT OF FOOT-SHOE FETISH DISPLAYED
BY A MAN WITH AUTISM*

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Results of a functional analysis indicated that a man diagnosed with autism engaged in bizarre sexual behavior in the presence of women wearing sandals. Several treatments proved to be ineffective or impractical. By contrast, a response-interruption/time-out procedure quickly eliminated the problem behavior in multiple settings.

Key words: fetish, functional analysis, sexual behavior

Fetishism is characterized by recurrent and intense sexual urges or behaviors that involve inanimate objects and are accompanied by stress or functional impairment (American Psychiatric Association [APA], 2000). Assessment of sexual arousal and sexually deviant behavior involves identification of the topography of the response and the conditions under which it occurs (Barlow, 1974), which often is accomplished through verbal report or measures of penile circumference in the presence of representational stimuli (e.g., pictures, videotapes, or audiotapes; Abel, Blanchard, Barlow, & Mavisakalian, 1975; Barlow, Becker, Leitenberg, & Agras, 1970). Reyes et al. (2006) recently applied methods derived from the functional analysis of problem behavior to measure sexual arousal in incarcerated predators who viewed videotapes showing a variety of “targets” (adults, teens, children). The present study

extends that research by examining the actual behavior that comprised a sexual fetish in the presence of the actual stimuli and designing the least intrusive and effective intervention.

METHOD

Subject and Settings

Alex was a 36-year-old man who had been diagnosed with autism and who engaged in very little expressive language. He was able to follow three- to four-step instructions. He had a 20-year history of inappropriate sexual (masturbatory) behavior (ISB) that consisted of dropping to a prone position near another person’s feet and gyrating his pelvis on the floor. This behavior resulted in Alex being excluded from most community outings (e.g., mall, restaurants, movies) and being assigned one-to-one staff supervision. Descriptive observations and staff report suggested that this behavior was maintained by automatic reinforcement (i.e., it occurred in the absence of social consequences).

Functional analysis, treatment, and generalization sessions were conducted three to five times per day, 5 days per week. All sessions were

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5 min in length, and the same woman was present in all female conditions (except generalization sessions). Functional analysis and treatment sessions were conducted in a relatively empty room (3.6 m by 6.1 m) at Alex's work facility. The room contained a table and chairs and was equipped with a one-way observation window. Generalization sessions were conducted in a work area, cafeteria, and outside courtyard at the facility under conditions typical of those locations.

Response Measurement and Interobserver Agreement

Trained observers used handheld computers to collect data on ISB during continuous 10-s intervals. During functional analysis sessions, ISB was scored when Alex moved his pelvis back and forth while he lay on the floor, and data were summarized as the percentage of intervals during which responding occurred. During treatment evaluation sessions (presented in this study), ISB was scored when Alex bent both knees to go down to the floor within 1 m of the target individual, and data were summarized as latency to the first response. A different measure was used during the treatment evaluation because the intervention involved interrupting the response when it was initiated, which prevented occurrence of the full target response. Observations indicated that Alex never bent his knees within 1 m of others without dropping to the ground and gyrating.

An independent observer collected data during 34% of sessions. Observers' records were compared on an interval-by-interval basis, and agreements were scored for intervals in which both observers scored either the occurrence or nonoccurrence of behavior. Interobserver agreement was calculated by dividing the number of agreement intervals by the total number of intervals (for interval data) or dividing the smaller number of intervals prior to the response by the larger number of intervals (for latency data) and multiplying by 100%. Mean agreement scores ranged from 98% to 100%.

Functional Analysis

We conducted two functional analyses in which antecedents (footwear and gender) were manipulated while consequences were held constant (no social consequences were delivered). During Functional Analysis 1, we presented four conditions four times each in a multielement design. During each condition, the same woman entered the room and walked around but did not provide any attention. The footwear conditions included the woman in (a) sandals, (b) tennis shoes, (c) high heels, and (d) flat shoes. Functional Analysis 2 was conducted to isolate further the stimulus characteristics that occasioned the target behavior. Five conditions were conducted four times each in a multielement design. Three were similar to those in the first functional analysis with an additional manipulation of gender in one condition: (a) woman and sandals, (b) man and sandals, and (c) a barefoot woman. In the fourth condition, (d) a pair of women's sandals was placed on the floor (no person was present); the fifth condition (e) was an alone control (no footwear or person was present).

Treatment Evaluation

Two interventions that proved to be either ineffective or impractical for long term implementation were evaluated following the functional analysis and prior to the treatments described in this paper. First, we attempted to transfer stimulus control from the woman in sandals to pictures of women in sandals by using a pairing procedure; however, no transfer of control was observed after 50 pairing sessions. Second, we found that continuous access to snacks, leisure items, attention, and a video of a woman in sandals eliminated the behavior; however, the intervention was impractical for long-term implementation. Therefore, two interventions that were more practical were compared to baseline in a multielement design. Baseline sessions were identical to the woman in sandals condition of the functional analyses. Sensory extinction (Rincover, Cook,

Peoples, & Packard, 1979) sessions were similar to baseline sessions except that a therapist placed an athletic protector (a plastic cup that protects the genitals) around Alex's waist, outside of his pants before the session began. The protector was assumed to minimize sensory stimulation produced by gyrating his pelvis on the floor. In the response-interruption/time-out (RI/TO; Rolider & Van Houten, 1985) condition, Alex wore a backpack with a strap (0.6 m long) attached to each side of the top. When Alex initiated the target response, a female therapist followed him and gently pulled on the straps and walked him to the corner of the room. If he attempted to move away or drop to the floor, the therapist gently pulled up on the backpack straps. After a 1-min time-out period had passed, Alex again was allowed to walk around the room. Fading entailed eliminating first one strap, then the other. When both straps were eliminated, the therapist responded to attempts to drop to the floor by pulling up on a small loop at the top of the backpack. After both straps were eliminated, generalization sessions were conducted in the work area, cafeteria, and outside courtyard in the presence of four different women wearing sandals. The therapist remained nearby during generalization sessions and would have walked over to implement the RI/TO procedure had Alex initiated the problem behavior.

RESULTS AND DISCUSSION

Figure 1 (top) shows the mean percentage of intervals of ISB during both functional analyses. During Functional Analysis 1, Alex exhibited ISB in every session of the woman in sandals condition but never in any other condition. During Functional Analysis 2, Alex exhibited ISB in every session in which a woman was wearing sandals and to a lesser degree when she was barefoot. He never engaged in the behavior in other conditions (man in sandals, sandals only, alone). These results indicated that Alex's ISB was occasioned by a visible female foot,

especially in sandals, and that it persisted in the absence of social consequences.

Figure 1 (bottom) shows the latency to the first occurrence of ISB during baseline and treatment conditions. During all baseline sessions, Alex engaged in ISB almost immediately when the woman entered the room. In the first treatment condition (sensory extinction), latency to ISB initially increased but subsequently decreased to baseline levels. The ineffectiveness of this treatment may have been due to increases in the force in which he gyrated while wearing the athletic protector, possibly resulting in access to sensory reinforcement. By contrast, latencies increased during RI/TO sessions until Alex consistently refrained from engaging in ISB. Problem behavior recurred during the first session with no straps on the backpack but did not recur during subsequent sessions.

This study illustrates an extension of functional analysis methodology to ISB by measuring the actual response of interest in the presence of actual rather than representational stimuli. Results indicated that Alex engaged in ISB in the presence of a stimulus combination that involved both people (the woman) and inanimate objects (the sandals). Although the behavior did not strictly meet the APA (2000) definition of a fetish, which limits fetish behavior to inanimate stimuli, our assessment data indicated that sandals played a prominent role in the occurrence of problem behavior.

Information derived from the functional analysis was used to design a series of interventions to decrease the behavior by eliminating or reducing the reinforcement it produced. Transfer of stimulus control, noncontingent reinforcement, and sensory extinction were found to be ineffective or impractical. By contrast, RI/TO was effective in eliminating the behavior. Evidence of maintenance and generalization was observed when the backpack was modified, and sessions were conducted in the presence of other women wearing sandals in other environments, indicating that the back-

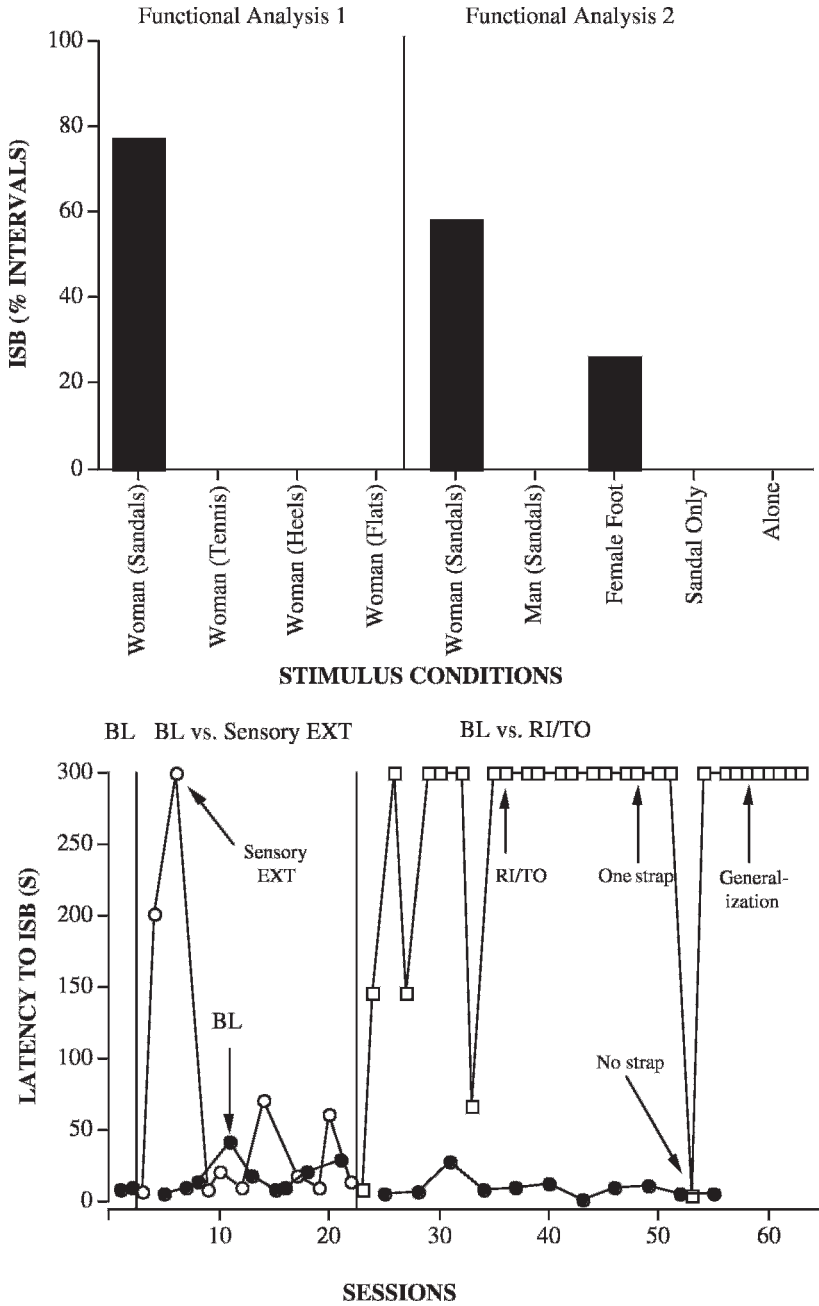


Figure 1. Mean percentage of intervals of inappropriate sexual behavior (ISB) across functional analysis conditions (top) and latency (in seconds) to the first occurrence of ISB during baseline, sensory extinction (EXT), and response-interruption/time-out (RI/TO) conditions (bottom). Latency is shown as 300 s (session maximum) if ISB never occurred.

pack may have served as an inhibitory stimulus in whose presence attempts to engage in inappropriate behavior did not result in reinforcement. Although we were unable to collect

observational data in uncontrolled community environments, Alex's longstanding restriction from involvement in community activities was rescinded, and no incident reports involving

inappropriate masturbatory behavior in the community were filed through the end of a 6-month follow-up period.

There were several limitations of the current study. First, the functional analysis focused only on antecedent influences; however, the finding that Alex's ISB reliably occurred in the absence of social consequences supported our assumption that the behavior was maintained by automatic reinforcement. It is possible, however, that ISB also was maintained by social reinforcement. Second, we did not provide reinforcers for appropriate nonmasturbatory behavior, nor did we explicitly teach Alex to engage in a more appropriate masturbatory behavior or to restrict masturbation to a more acceptable context. Alex was reported to engage in conventional masturbatory behavior in his bedroom; thus, acquisition of alternative behavior was not a concern in this study. Third, because we did not evaluate the separate components of the RI/TO procedure, it is possible that response interruption alone would have resulted in a decrease in ISB without the need for the time-out procedure. Finally, we did not conduct any direct observational follow-up; however, record review suggested a socially important outcome of successful community access. Nevertheless, we believe that the methods used here illustrate a needed extension of functional analysis methodology by placing emphasis on direct and systematic observation of ISB under relevant stimulus conditions. As

such, they may be instructive to researchers attempting to study or treat similar disorders.

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