Following Directions: Increasing Compliance in Children and Adults with Autism Spectrum Disorders

David A. Wilder, Ph.D., BCBA-D
Florida Institute of Technology

(Non)Compliance

• Doing what is requested in an adult-delivered instruction within 10 seconds

• The most common childhood behavior problem (McMahon & Forehand, 2003)
Why is Compliance Important?

• Is negatively correlated with a number of psychiatric diagnoses later in life (Keenan & Wakschlag, 2000)

• For children with disabilities, may be correlated with academic progress (Wehby and Lane, 2009)

• Compliance is also predictive of the frequency and severity of problem behavior later in development (Keenan et al., 1998)
The present study investigated the use of a compliance-training procedure and its effect on untrained deviant child behavior. Three children, each generally noncompliant to adult requests and with several additional problems, such as crying, aggression, and self-injurious behavior, were trained in the compliance procedure under a multiple-baseline design across therapists. Compliance was defined as the correct response to prospecified requests. Other classes of deviant child behavior were measured continuously throughout the study but not directly reinforced. The results of the study showed that (a) increases in compliance to requests were directly related to the contingencies employed; (b) decreases in untrained deviant behaviors occurred when compliance increased, even though no direct contingencies had been placed on these behaviors; and (c) the relationship between untrained deviant behaviors and compliance appeared to be maintained by a different set of events in each of the three children. The results are discussed in terms of behavioral covariation and generalization.

Descriptors: compliance, covariation, aggression, crying, self-injurious behavior.
Why is Compliance Important?

- Considered to be a foundation skill for learning a variety of more complex social, academic, and self-care skills (Lin, Lawrence, & Gorrell, 2003)

Assessment of Listener Repertoire

- Before intervening to increase compliance, assess the individual’s ability to appropriately respond to instructions / directions.
Assessment of Compliance

• Compliance is learned; Individuals behave in a noncompliant manner to
  – Get something they want (social positive reinforcement)
  – Avoid or escape something they don’t want (social negative reinforcement)

D. Wilder, Following Directions

Assessment of Compliance

• Assessment should be designed to determine:
  – Frequency of (non)compliance
  – Individuals with whom the child or adult is likely to behave in a (non)compliant manner
  – Instructions most likely to occasion (non)compliance and consequences most likely to maintain (non)compliance

D. Wilder, Following Directions
PRESCHOOLERS' COMPLIANCE WITH SIMPLE INSTRUCTIONS: A DESCRIPTIVE AND EXPERIMENTAL EVALUATION

Kasey M. Stephenson and Gregory P. Hanley
University of Kansas

Compliance is often used to describe a situation in which a child completes instructions from adults, and low levels of compliance are a common teacher concern. We conducted a descriptive assessment that showed that compliance was relatively stable for individual children, variable across children, and positively correlated with age. The impact of six antecedent variables (proximity, position, physical contact, eye contact, vocal attention, and play interruption) on compliance was assessed for 4 children. Next, the effects of three-step prompting were assessed alone, in combination with the antecedent variables, and at different integrity levels for 2 children. Results of the experimental analysis showed that compliance gradually increased with the addition of each antecedent variable for 2 of the 4 children. Three-step prompting in combination with the six antecedent variables increased compliance for the remaining 2 children, and high compliance levels were maintained until treatment integrity was decreased to 20% of full strength. The utility of this naturalistic compliance assessment is discussed, as are the relevant experiences that give rise to acceptable levels of compliance in preschool classrooms.

Key words: antecedent intervention, compliance, preschoolers, three-step prompting, treatment integrity

Table 1
Instructional Categories, Frames, and Items

<table>
<thead>
<tr>
<th>Category (two each)</th>
<th>Frame</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross motor</td>
<td>Roll the _____ to me.</td>
<td>Bull, car, truck</td>
</tr>
<tr>
<td></td>
<td>Put the _____ in the box.</td>
<td>Bull, horse, and so on</td>
</tr>
<tr>
<td>Fine motor</td>
<td>Clap your hands, wave your hands, touch your toes, stand up.</td>
<td>Shape and shape sorts</td>
</tr>
<tr>
<td></td>
<td>Put a _____ in the _____</td>
<td>Peg and peg board</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pinch and puzzle</td>
</tr>
<tr>
<td>Self-help</td>
<td>Wipe your hands with the towel.</td>
<td>Moist towel</td>
</tr>
<tr>
<td></td>
<td>Zip the zipper up to the top of the vest.</td>
<td>Small vest with zipper</td>
</tr>
<tr>
<td>Concept formation</td>
<td>Give me a [color] _____</td>
<td>Plastic bear, wooden block</td>
</tr>
<tr>
<td>Physical transition</td>
<td>Put a _____ in my hand.</td>
<td>Animal figure, block, and so on</td>
</tr>
<tr>
<td></td>
<td>Put the _____ on [in] the _____</td>
<td>Any item, shell, box</td>
</tr>
<tr>
<td></td>
<td>Give me the _____</td>
<td></td>
</tr>
</tbody>
</table>
• Add data sheet from book and make copies of data sheets
Assessment of Compliance

• A number of models for the assessment of (non)compliance exist:

  – Stephenson & Hanley, 2010
  – Rodriguez, Thompson, & Baynham, 2010
  – Wilder, Harris, Reagan, & Rasey, 2007
  – Reimers et al., 1993

JOURNAL OF APPLIED BEHAVIOR ANALYSIS 2010, 43, 143–147

ASSESSMENT OF THE RELATIVE EFFECTS OF ATTENTION AND ESCAPE ON NONCOMPLIANCE

NICOLE M. RODRIGUEZ, RACHEL H. THOMPSON, AND TANYA Y. BAYNHAM
UNIVERSITY OF KANSAS

The current study presents a method for assessing the relative effects of attention and escape on noncompliance in preschoolers. Attention and escape conditions were alternated in a multielement design, and a contingency reversal procedure, in which one test condition served as a control for the other, was used to demonstrate control. For all 3 participants, noncompliance was maintained, at least in part, by social attention. Functional analyses of noncompliance such as the one described here may be valuable for developing function-based treatments.

Key words: compliance, functional analysis, noncompliance, preschoolers
Methods of Increasing Compliance

- **Antecedent-based Interventions** (manipulations before the instruction is presented)

- **Consequence-based Interventions** (manipulations after the instruction is presented)
Antecedent-based Interventions to Increase Compliance

Supported
- Make eye contact (Hamlet et al., 1984)
- Phrase as a statement, not a question (Bouxsein, Tiger, & Fisher, 2008)
- Present high-probability requests immediately before (Mace et al., 1988)

Unsupported
- Provide free access to a preferred item (Cote, Thompson, & McKerchar, 2005)
- *Provide advance notice (Wilder, Nicholson, & Allison, 2010)
- Provide a rationale (Wilder, Allison, Nicholson, Abellon, & Saulnier, 2010)

Advance Notice
AN EVALUATION OF ADVANCE NOTICE TO INCREASE COMPLIANCE AMONG PRESCHOOLERS

DAVID A. WILDER, KATIE NICHOLSON, AND JANELLE ALLISON

FLORIDA INSTITUTE OF TECHNOLOGY

Advance notice of an upcoming instruction was evaluated to increase compliance among 3 children (4 to 5 years old) who exhibited noncompliance. Results show that the procedure was ineffective for all 3 participants. Advance notice plus physical guidance or physical guidance alone was necessary to increase compliance.

Keywords: advance notice, noncompliance, physical guidance, preschoolers, warning

Figure 1. Percentage of trials with compliance and problem behavior across baseline (BL), advance notice (AN), advance notice plus physical guidance (AN + PG), and physical guidance (PG) conditions for Ralph (R), Sam (S), and Carl (C).
Rationales

Further Evaluation of Antecedent Interventions on Compliance: The Effects of Rationales to Increase Compliance Among Preschoolers

David A. Wilder, Janelle Allison, Katie Nicholson, O. Elizabeth Abellon, and Renee Saulnier
Florida Institute of Technology

Functional analyses were conducted to identify reinforcers for noncompliance exhibited by 6 young children. Next, the effects of rationales (statements that describe why a child should comply with a caregiver-delivered instruction) were evaluated. In Experiment 1, 3 participants received the rationales immediately after the therapist’s instruction. In Experiment 2, 3 additional participants received more practical rationales immediately before the therapist’s instruction. The results indicate that rationales were ineffective for all 6 children. A guided compliance procedure increased compliance for 1 child; contingent access to preferred items with or without response cost increased compliance for the other participants. Although levels of problem behavior varied within and across participants, they were often higher in the rationale and guided compliance conditions.

Key words: extinction, functional analysis, guided compliance, noncompliance, preschool children, rationales
Figure 1. Percentage of trials with compliance across baseline (BL), rationale (Rat), guided compliance (GC), contingent access to preferred items (CA), and contingent access plus response cost (RC) conditions for Ricky (top), Ian (middle), and Andy (bottom).
Consequence-based Interventions to Increase Compliance

- Time-Out (Rortvedt & Miltenberger, 1994)
  - High-Probability Sequence (Mace et al., 1998)
  - Guided completion of the response contingent upon noncompliance (i.e., guided compliance, three-step prompting, least-to-most prompting) (Cote, Thompson, & McKerchar, 2005; Wilder & Atwell, 2006)
  - Delivery of praise, a token, or a preferred food/activity contingent upon compliance (Russo, Cataldo, & Cushing, 1981; Schutte & Hopkins, 1970; Wilder et al., 2007)
Figure 1. Percentage of trials with noncompliance across the three conditions of the functional analysis for Fred (top left) and Sam (bottom left). Percentage of trials with compliance during each session across baseline and DRA phases of the treatment evaluation for Fred (top right) and Sam (bottom right).
Take-Home Points

• Compliance is a critical skill for children with and without disabilities

• Should be a focus of instruction at home, school, and clinic

• Methods that are supported by research and are described in this talk (e.g., guided compliance, differential reinforcement) should be used to teach compliance, beginning at an early age
Suggested Readings


D. Wilder, Following Directions

Thank you

If you would like a copy of the presentation, e-mail David Wilder at dawilder@fit.edu

D. Wilder, Following Directions
Following Directions: Increasing Compliance in Children and Adults with Autism Spectrum Disorders

David A. Wilder, Ph.D., BCBA-D
Florida Institute of Technology