Fact: With Autism, there is a higher likelihood of problem behavior

- Meltdowns
- Aggression
- Self-injury

References: Baghdasili, Pascal, Grisi, & Aussilloux, 2003; Horner et al., 2002; Kim et al., 2000; Murphy, Healy, & Leader, 2009; Thompson, 2009

Fact: Problem behavior has led to a highly restrictive lifestyle for many persons with autism and their families

This lifestyle develops partly because problem behavior of children with autism is merely modified, medicated, or mollified rather than understood with treatments developed based on that understanding.

To understand = to determine the personally relevant outcomes and context that influence problem behavior

Behavior analysts conduct functional assessments.
Fact: Functional analysis of problem behavior is well researched

- 435 studies with functional analyses and
- 981 distinct functional analyses have been published

and integral to the power of behavioral intervention

Larger reductions in problem behavior were evident when a functional analysis was part of the functional assessment process
  - Campbell, 2002; Kahng, Iwata, and Lewin, 2003, Hayvaert et al., 2012

Why?

- Took too much time and resources,
- Never did one before (i.e., training issue),
- Seemed unsafe,
- Were unsafe,
- Often inconclusive
- Still ended up using behavior modification-based treatment i.e., arbitrary rewards in DROs & punishment

*Oliver, Pratt, & Normand (2016)

Many (most?) Behavior Analytic Practitioners

who work with children with autism and/or intellectual disabilities have shied away from conducting functional analyses


Aggregated Results

Similar results with all three children
(Hanley et al., 2014)

Similar results were replicated in home and schools settings
(Santiago et al., 2015)

Case Example (Gail, 3 yo, dx: PDD-NOS)

Therapist: Nicholas Vanselow, BCBA
Setting: Outpatient Clinic

Interview suggested that Gail engaged in meltdowns and aggression....
Case Example (Gail, 3 yo, dx: PDD-NOS)  
Therapist: Nicholas Vanselow, BCBA  
Setting: Clinic

Interview suggested that Gail engaged in meltdowns and aggression when Mom was attending to other tasks or siblings. 

**Problem Behavior**

when Mom was attending to other tasks or siblings. 

**Context**  
(suspected establishing operations)

Functional Analysis: Test Condition

**Test:** Mom attends to other tasks and people. 

As soon as Gail engaged in any problem behavior, Mom directs her undivided attention to Gail while interacting with her and her most preferred toys.

Functional Analysis: Control Condition

**Control:** Mom directs her undivided attention to Gail while interacting with her and her most preferred toys the entire time.
Case Example: Gail, 3 years old, PDD-NOS

By alternating between 5 minute periods of test and control conditions, we were able to turn on and off Gail’s problem behavior...

Giving us and her Mom confidence as to why she was engaging in the extraordinary problem behavior

...to simply gain and maintain her Mom’s undivided attention and play time

Case Example (Bob, 8 yo, dx: Autism)
Therapist: Sandy Jin
Setting: Clinic

Hypothesis:
Bob engages in meltdowns and aggression in order to obtain: “His way” in the form of escape from adult instructions and access to preferred ways of interacting with electronics or academic materials

Case Example (Dale, 11 yo, dx: Autism)
Therapist: Sandy Jin
Setting: Clinic

Hypothesis:
Dale engages in meltdowns and aggression in order to obtain: “His way” in the form of escape from adult instructions and access to preferred (tangible) items, and adult attention.

Some Important Aspects of our Approach

1. Extensive descriptive assessments are never part of the process because they are: time-consuming and usually suggest invalid relations

St. Peter et al., 2005; Thompson & Iwata, 2007

Some Important Aspects of our Approach

2. Closed-ended indirect assessments (MAS, QABF, FAST) are never used in the process because they do not provide any information about personally unique or qualitative features of potentially influential variables

Some Important Aspects of our Approach

3. An open-ended interview is always part of the process (as is one brief and informal observation)

Goals of interview are to:
  a) Develop rapport with parents or teachers
  b) Identify unique contingencies
  c) Develop “function hunches”
  d) Set up a safe and quick analysis

* Interviews allow for discoveries which can then be verified (or not) in a functional analysis
Some Important Aspects of our Approach

4. A standard 4 or 5 condition analysis (with the play condition as the control, e.g., Iwata et al., 1982) is never part of the process

Probably a mistake to standardize a powerful and flexible tool like a functional analysis

Some Important Aspects of our Approach

5. A two-condition analysis designed from the open-ended interview is always part of the process (i.e., an interview-informed analysis)

Functional analysis:
Direct observation of behavior under at least two conditions in which some event is manipulated

Some Important Aspects of our Approach

6. We synthesize multiple contingencies into one test condition, if the interview suggests the contingencies are operating simultaneously

Why might problem behavior occur?

- Single contingencies:
  1. Attention or toys (social-positive reinforcement)
  2. Escape/avoidance (social-negative reinforcement)
  3. Sensory/non-social (automatic reinforcement)

- Combinatorial contingencies:
  1. Attention and Toys
  2. Escape to toys
  3. Escape to toys and attention
  4. Escape to automatic reinforcement
  5. Compliance with mands
  6. Escape to access to rituals, preferred conversations
  7. Escape to controlling people or objects
  8. Etc.....

Standard Functional Analysis
Multiple test conditions
Uniform test conditions
Isolated test contingencies
Toy-play control conditions
Reinforce dangerous behavior
Some standard analyses published a while ago

Consider an Interview Informed Synthesized Contingency Analysis (IISCA)

<table>
<thead>
<tr>
<th>Standard Functional Analysis</th>
<th>Interview-informed Synthesized Contingency Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple test conditions</td>
<td>Single-test condition</td>
</tr>
<tr>
<td>Uniform test conditions</td>
<td>Individualized test conditions</td>
</tr>
<tr>
<td>Isolated test contingencies</td>
<td>Synthesized contingencies</td>
</tr>
<tr>
<td>Toy-play control conditions</td>
<td>Test-matched control</td>
</tr>
<tr>
<td>Reinforce dangerous behavior</td>
<td>Reinforce precursors to and dangerous behavior</td>
</tr>
</tbody>
</table>

Take Home Point

Prior to treating problem behavior of children with autism, take an hour to:

1. Conduct an open ended interview to discover the context and outcomes that seem relevant to problem behavior
2. Conduct an IISCA to demonstrate the validity of the suspected contingency – and to set up the motivating conditions to teach skills
3. Once we identify the reinforcing contingency for the problem behavior, we

   Teach the child how to effectively communicate for their reinforcers
   Teach the child how to tolerate times when the reinforcer is unavailable
   Extend this skill based treatment to relevant people and contexts
Treatment

Treatment relies on the synthesized reinforcer

Initially provided immediately following simple behavior

Ultimately provided intermittently and unpredictably following a variety of expected behaviors
Main Commitment in Treatment

Our function-based treatments are always skill-based

Functional Communication Training: A Review and Practical Guide
Jeffrey H. Tiger, Louisiana State University; Gregory P. Hanley, Wesleyan New England College and Jennifer Brucki, Vanderbilt University

5 Critical Aspects of Delay/Denial Tolerance Training

1. Always provide immediate sr for some FCRs
5 Critical Aspects of Delay/Denial Tolerance Training

2. Teach an appropriate response to multiple cues of delay, denial, or disappointment

3. Progressively increase the average amount of behavior required to terminate the delay

4. Terminate the delay for various amounts of behavior

5. Probably best to not signal how much behavior is required to terminate the delays

(See Hanley, Jin, Vanselow, & Hanratty, JABA, 2014, and studies from Mahshid Ghaemmaghami in 2015, 2016)

Reinforcement is:
- Function-based
- Differential
- Variable
- Unpredictable
- Variable in duration

Response requirement is:
- Tolerance response
- Instruction
- Compliance
- Er

Treatment Implementation

1. Spin it!
2. Keep it to yourself
3. Require that behavior next time

*Materials not needed:
- Laminate
- Laminate machine
- Glue guns
- Viscous markers
- Velcro
- Tokens
- Token boards
- Timers
- Stickers
- Candies
- Anything that was not already in the child’s environment!
Social Acceptability Questionnaire Results

<table>
<thead>
<tr>
<th>Questions</th>
<th>Gail</th>
<th>Dale</th>
<th>Bob</th>
<th>Mean</th>
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<tbody>
<tr>
<td>1. Acceptability of assessment procedures</td>
<td>7</td>
<td>7</td>
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</tr>
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<td>2. Acceptability of treatment packages</td>
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<td>3. Satisfaction with improvement in problem behavior</td>
<td>7</td>
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<td>6</td>
<td>6.7</td>
</tr>
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<td>4. Helpfulness of consultation</td>
<td>7</td>
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Note: 7 = highly acceptable, highly satisfied, or very helpful
1 = not acceptable, not satisfied, or not helpful.

IISCAs have led socially-validated outcomes

Time Assessment

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Supervision meetings: 16-20 1000-1750 1250
Report writing/planning: — 4 — 500

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A final message

With Autism, there is a higher likelihood of problem behavior

- Meltdowns
- Aggression
- Self-injury

References: Baghdadi, Pascal, Grisi, & Aussilloux, 2003; Horner et al., 2003; Kline et al., 2000; Murphy, Healy, & Leader, 2009; Thompson, 2009

It is attainable

- without drugs
- without hospitalization
- without harsh punishment
- without candies, stickers, and token boards

It is attainable

- by first understanding why the child is engaging in the problem behavior
- understanding can be realized quickly, safely, and analytically

It is attainable

- when children are taught skills* to help them navigate our complex social world
  - *Communication and toleration

Thanks for listening.

For more information go to: www.practicalfunctionalassessment.com

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Springfield, Massachusetts 01119
ghanley@wne.edu