Autism is characterized by:

Impairments in

language development

social interaction

and

Excessive repetitive behavior
With Autism, there is a higher likelihood of problem behavior

**Meltdowns**
**Aggression**

**Self-injury**
**Chronic stereotypy**

**Sleep problems**

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

But, freedom from these behaviors for persons with Autism and their caregivers is attainable
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
It is attainable when children are taught skills to help them navigate our complex social world

While showing complete respect for their preferences without altering their rich and unique personalities
It is attainable

with proper assessment and treatment by a BCBA

*Main assumption

Severe problem behavior is understood as learned behavior influenced by its outcomes and context
Assumptions Regarding Problem Behavior

Problem behavior serves a purpose for the child

Assumptions Regarding Problem Behavior

Problem behavior is a primarily function of particular environmental conditions (not of their diagnoses)
Assumptions Regarding Problem Behavior

There are not aggressive kids per se but contexts that support aggression

Assumptions Regarding Problem Behavior

Extraordinary behavior can develop and persist under rather ordinary conditions
Assumptions Regarding Problem Behavior

If the problem behavior is persisting, it is being reinforced

Assumptions Regarding Problem Behavior

The answers to how to help children with their problem behaviors can be found in understanding the effect their problem behavior is having on the environment.
To determine the personally relevant outcomes and context that influence problem behavior

behavior analysts conduct functional assessments

What is a functional assessment?

(You can’t hold it in your hand)

It is a process

through which the variables influencing problem behavior are identified
Why conduct a functional assessment?

In order to identify

an effective
precise
personally relevant,
and
humane treatment

for problem behavior

Functional Assessment Process

Indirect Assessment
an open ended interview
with primary caregivers

Descriptive Assessment
brief observation
and casual interaction

Functional Analysis
Systematic observation within
two different and carefully
designed contexts

Test
Control
These are not experimental techniques awaiting validation

435 studies with *functional analyses* and
981 distinct functional analyses
have been published between 1961 and 2012

The functional analysis is integral to the success of the process

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
But,

most people,

including most practicing behavior analysts who work with children with autism

have shied away from conducting functional analyses

It has taken a lot of research, but there are no longer obstacles to conducting functional assessments including functional analyses

Free pdf:
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3546636/pdf
Producing Meaningful Improvements in Problem Behavior of Children with Autism via Synthesized Analyses and Treatments

Hanley, Jin, Vanselow, & Hanratty (in press) JABA;

url to awkward video introducing the article: http://www.youtube.com/watch?v=qbQxeQ5S3Vo

Participants

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Age</th>
<th>Diagnosis</th>
<th>Problem Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gail</td>
<td>3 yo</td>
<td>PDD-NOS</td>
<td>meltdowns, aggression, screaming</td>
</tr>
<tr>
<td>Dale</td>
<td>11 yo</td>
<td>Autism</td>
<td>meltdowns, aggression</td>
</tr>
<tr>
<td>Bob</td>
<td>8 yo</td>
<td>Autism</td>
<td>meltdowns, aggression</td>
</tr>
</tbody>
</table>

Compliance (%)

<table>
<thead>
<tr>
<th></th>
<th>Gail</th>
<th>Dale</th>
<th>Bob</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>50</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Behaviors:

- meltdowns
- aggression
- screaming
Outcomes (aggregated)

- **Problem Behaviors**
  - Baseline: 0
  - Treatment: 2

- **Social Skills**
  - Baseline: 1
  - Treatment: 2

- **Compliance (%)**
  - Gail: 100
  - Dale: 100
  - Bob: 100

Participants:
- Gail: 3 yo, PDD-NOS
- Dale: 11 yo, Autism
- Bob: 8 yo, Autism

Diagnosis:
- Gail: meltdowns, aggression, screaming
- Dale: meltdowns, aggression, screaming
- Bob: meltdown, aggression, screaming

Functional Assessment and Treatment Model

- **Steps (abbreviated)**
  1. Functional Assessment Process
  2. Functional Communication Training
  3. Delay and Denial Tolerance Training
  4. Treatment Extension
Case Example (Gail, 3 yo, dx: PDD-NOS)

**Hypotheses:**

Gail engages in meltdowns and aggression in order to obtain:

1. preferred (tangible) items,
2. maternal attention,
3. or both

---

**Hypotheses:**

Gail engages in meltdowns and aggression in order to obtain:

1. preferred (tangible) items,
2. maternal attention,
3. or both
Case Example (Gail, 3 yo, dx: PDD-NOS)

**Hypotheses:**
Gail engages in meltdowns and aggression in order to obtain:
preferred (tangible) items,
And maternal attention,

![Graph showing problem behavior per minute over sessions for Gail.](image)

Case Example (Bob, 8 yo, dx: Autism)

**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

![Graph showing problem behavior per minute over sessions for Bob.](image)
Case Example (Dale, 11 yo, dx: Autism)

**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.

---

**Ten Unique Aspects of our Approach**

1. **Closed-ended indirect assessments (MAS, QABF, FAST) are never used in the process**

Closed ended indirect assessment are unreliable

Without reliability, questions regarding their validity are moot.

More important is that closed ended assessments do not yield any specific information to design an analysis.
Ten Unique Aspects of our Approach

2. Extensive descriptive assessments (those requiring more than 30 min) are never part of the process

DAs are:
• time-consuming
• require complex data collection and analysis
• usually suggest invalid relations
  
  (St. Peter et al., 2005; Thompson & Iwata, 2007)

Descriptive assessments can suggest prevalence but can never demonstrate relevance

Two Take Home Points with DAs

1. Conduct an informal observation and write down some possible controlling variables

2. Conduct closed DAs when you know what you are looking for....
   – E.g., treatment integrity assessments
Ten Unique 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
   b) Develop “function hunches”
   c) Identify idiosyncratic aspects of contingencies
   d) Set up a safe and efficient analysis

- Open-ended indirect assessments (akin to clinical interviews) allow for discoveries which can then be verified in a functional analysis

Take home point

Indirect assessments/descriptive assessments and functional analyses are not substitutable; they are complimentary

Open ended assessment allows for discovery of possible factors whereas functional analyses allow you to demonstrate the relevance of those factors.

Therefore, use both of them….both are essential.
Ten Unique 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

We think it is a mistake to standardize a powerful idiographic assessment

Some standard analyses published a while ago
Some standard analyses published a while ago
Ten Unique Aspects of our Approach

5. A two-condition analysis designed from the open-ended interview is always part of the process

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

Two Conditions:
Test: Contains the contingency thought to maintain severe problem behavior
Control: *Does not* contain the contingency thought to maintain severe problem behavior
Ten Unique Aspects of our Approach

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

(e.g., we don't worry about whether we can determine if the behavior is maintained by positive or negative reinforcement)

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. Control (often specified via excessive and varied requests)
  6. Access to rituals, preferred conversations
Ten Unique Aspects of our Approach

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

(e.g., we don't worry about whether we can determine if the behavior is maintained by positive or negative reinforcement)

**Main Result:** Our analyses are short and safe.

Safety improved by:
- providing all reinforcers immediately and for every problem behavior in the test condition
- always using a “No EO” control condition

---

An unfortunate standardization of functional analysis has developed in last 10 years

<table>
<thead>
<tr>
<th>Standard Functional Analysis</th>
<th>Percentage of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple tests</td>
<td>346</td>
</tr>
<tr>
<td>Uniform tests</td>
<td>341</td>
</tr>
<tr>
<td>Isolated tests</td>
<td>325</td>
</tr>
<tr>
<td>Toy-play control condition</td>
<td>346</td>
</tr>
</tbody>
</table>

Commitments of a Functional Analysis

1965-2000 (N = 497)
2001-2012 (N = 358)
Consider an Interview-informed Synthesized Contingency Analysis

**Standard Functional Analysis**
- Multiple tests
- Uniform tests
- Isolated contingencies
- Toy-play control

**Synthesized Contingency Analysis**
- Single-test
- Individualized test
- Synthesized contingencies
- Test-specific control

Towards an efficient analysis

<table>
<thead>
<tr>
<th>Functional Analysis Format</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>456</td>
</tr>
<tr>
<td>Trial-based</td>
<td>19</td>
</tr>
<tr>
<td>Brief</td>
<td>64</td>
</tr>
<tr>
<td>Latency-based</td>
<td>6</td>
</tr>
<tr>
<td>Synthesized</td>
<td>14</td>
</tr>
</tbody>
</table>

Analysis Duration (min)

- Standard: N = 456
- Trial-based: N = 19
- Brief: N = 64
- Latency-based: N = 6
- Synthesized: N = 14
Towards a more controlled analysis

![Percentage of Control Functional Analysis Format](image_url)

- Standard: Low: 0, Moderate: 25, High: 75
- Trial-based: Low: 0, Moderate: 25, High: 75
- Brief: Low: 0, Moderate: 25, High: 75
- Latency-based: Low: 0, Moderate: 25, High: 75
- Synthesized: Low: 0, Moderate: 25, High: 75

$N = \{456, 19, 64, 6, 14\}$
Remember what an informed analysis provides

1. A valid demonstration of the function of behavior
2. A stable and sensitive baseline from which to evaluate treatment
3. A properly motivating set of condition to teach functional communication
   - or other important skills like:
     • delay/denial tolerance
     • independent play
     • compliance with adult instructions

And, socially meaningful outcomes →

Activity

Billy is a 5-year old boy with severe self-injurious behavior (hand-to-head hitting).

Carefully describe an ecologically and experimentally valid assessment process that would allow one to discover and demonstrate the function of his behavior.
Billy is a 5-year old boy with severe hand-to-head hitting. Describe the functional assessment process.

- 1st step: Open ended interview & brief observation of child
  - From this, function hunches should emerge
  - The specific conditions to emulate in a functional analysis should be apparent
  - The behaviors to include in the contingency class should be apparent

- 2nd step: Functional analysis:
  - Observing and measuring problem behavior while manipulating the suspected contingency
  - Manipulation occurs via two rapidly alternating conditions
    - Test condition contains suspected contingency
      - Suspected reinforcer is available immediately and only following problem behavior
    - Control condition does not have suspected contingency
      - Suspected reinforcer is usually provided freely (i.e., noncontingently)
  - High rates in test condition relative to control condition confirms hypothesis that child's hitting is reinforced by _______

Questions?

Some Test Condition Tips

- Select topographically similar behavior as the target of the analysis or topographies that cluster when emitted
  - Consider safe precursors
  - Carefully consider whether to include dangerous behavior in the contingency class

- Schedule consequences to occur immediately following each target behavior (and withhold the same consequences for all other behaviors).
Some Control Condition Tips

- **Set up the same as the test condition except:**
  - correlate the condition with a different salient stimulus
  - remove the putative reinforcement contingency

- “No EO” is the best control condition

- Probably better than:
  - Extinction
  - Noncontingent reinforcement
  - Differential reinforcement
    - of other behavior
    - of an alternative behavior
  - Compound schedule (FT / DRO)

Role Play

- Select a unique contingency
- Discuss what the Test and Control conditions would look like
- Practice the Test and Control conditions
- Share role play with entire group

Questions?
Designing own analysis

1) What target behavior(s)?
2) What behaviors will be measured and how?
3) Safety precautions? Consent?
4) What reinforcers will be arranged in the test condition?
5) How will the value of the reinforcer be established?
6) How will the control condition be arranged?
7) What Sds will be incorporated in test/control conditions?
8) What materials will be available in all conditions?
9) How long will sessions be? How long in between sessions?
10) Where will they be conducted and by whom?
11) What session order will be used (what will the design be)?
12) Who will graph and interpret the results?

Other Myths!

1. Compared to other assessment types, functional analyses are more time-consuming, complex, risky, impossible to “sell” to constituents, less ecologically valid.

2. Problem behavior is shaped during a functional analysis, or irrelevant functional relations are created during a functional analysis.

3. Functional analyses can’t address:
   • low rate problem behavior,
   • covert problem behavior,
   • extremely dangerous problem behavior,
   • problem behavior influenced by constantly changing reinforcers

Functional Assessment and Treatment Model

<table>
<thead>
<tr>
<th>Steps (expanded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interview</td>
</tr>
<tr>
<td>2. Functional Analysis</td>
</tr>
<tr>
<td>3. Functional Communication Training</td>
</tr>
<tr>
<td>4. Complex FCT</td>
</tr>
<tr>
<td>5. Tolerance Response Training</td>
</tr>
<tr>
<td>6. Easy Response Chaining</td>
</tr>
<tr>
<td>7. Difficult Response Chaining</td>
</tr>
<tr>
<td>8. Treatment Extension</td>
</tr>
</tbody>
</table>

Treatment Analysis

Dale

11-year old boy

diagnosed with Autism

![Graph showing problem behavior per minute]
Treatment Analysis

Dale

11-year old boy
diagnosed with Autism

Problem Behavior per min
Simple FCR per min
Complex FCR per min

Sessions

Calendar Days (2013)

Visits

Compliance
Noncomp.

Treatment Extension

31 5/2

Levels

1 2 3

Autism with diagnosed old Dale

Analysis 1/24 1/25 1/25

2 3

1 2 3

0.0

0.5

1.0

0.0

0.5

1.5

2.0

1.5

2.0

0

1

2

3

4

5

6 7

8

9

10

17

18 19 20 21 22 23 24 25 26 27 28

19

20

7/27/2014

32
Treatment Analysis

Dale

11-year old boy
diagnosed with Autism
Treatment Analysis
Dale
11-year old boy
diagnosed with Autism

Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Description 1</th>
<th>Description 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simple motor movements</td>
<td>Walk over here, stand up, sit down, clap your hands, touch your (shoulder, head, toes)</td>
</tr>
<tr>
<td>2</td>
<td>Simple academics</td>
<td>Draw a circle, write your name, copy what I write</td>
</tr>
<tr>
<td>3</td>
<td>Homework/Task preparation</td>
<td>Unzip your backpack, take out the book, erase the board to the board, put these books on the book shelf</td>
</tr>
<tr>
<td>4</td>
<td>Complex academic: Reading skills</td>
<td>Read this paragraph, Answer this question…. Sound out the words</td>
</tr>
<tr>
<td>5</td>
<td>Complex academic: Math skills</td>
<td>Solve this (addition, subtraction etc…)</td>
</tr>
<tr>
<td></td>
<td>Self-help skills</td>
<td>Wash your hands, do this chore (e.g., organizing chairs)</td>
</tr>
<tr>
<td></td>
<td>Play skills</td>
<td>Throw or kick the ball</td>
</tr>
</tbody>
</table>

Session
Visits
Calendar Days (2013)
Treatment Analysis

Dale

11-year old boy diagnosed with Autism

- Three analysts alternated while parents observed the sessions
- Following training, the father was introduced after the analyst presented the evocative trial and halfway through the session; the mother was present in the session room
- The mother implemented treatment in the session room
- Parents varied the type and amount of instructions during the delay period
- Parents implemented treatment in the home while novel instructions were introduced
Steps
---
1* Interview
2* Functional Analysis
3 Functional Communication Training
4 Complex FCT
5 Tolerance Response Training
6 Easy Response Chaining
7* Difficult Response Chaining
8* Treatment Extension

Time Assessment

<table>
<thead>
<tr>
<th>Steps</th>
<th># of Visits (1 hr each)</th>
<th>Range</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1* Interview</td>
<td>--</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2* Functional Analysis</td>
<td>1 - 4</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>3 Functional Communication Training</td>
<td>1 - 3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4 Complex FCT</td>
<td>1 - 4</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>5 Tolerance Response Training</td>
<td>2 - 7</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>6 Easy Response Chaining</td>
<td>1 - 5</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>7* Difficult Response Chaining</td>
<td>2 - 11</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>8* Treatment Extension</td>
<td>4 - 9</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td><strong>23 - 32</strong></td>
<td><strong>27</strong></td>
<td></td>
</tr>
</tbody>
</table>

Supervision meetings: 16 - 28 20
Report writing / planning: -- 4
**Cost Assessment**

<table>
<thead>
<tr>
<th>Steps</th>
<th># of Visits</th>
<th>Cost (in US dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Range</td>
</tr>
<tr>
<td><strong>1st Interview</strong></td>
<td></td>
<td>--</td>
</tr>
<tr>
<td><strong>2nd Functional Analysis</strong></td>
<td></td>
<td>1 - 4</td>
</tr>
<tr>
<td><strong>3rd Functional Communication Training</strong></td>
<td></td>
<td>1 - 3</td>
</tr>
<tr>
<td><strong>4th Complex FCT</strong></td>
<td></td>
<td>1 - 4</td>
</tr>
<tr>
<td><strong>5th Tolerance Response Training</strong></td>
<td></td>
<td>2 - 7</td>
</tr>
<tr>
<td><strong>6th Easy Response Chaining</strong></td>
<td></td>
<td>1 - 5</td>
</tr>
<tr>
<td><strong>7th Difficult Response Chaining</strong></td>
<td></td>
<td>2 - 11</td>
</tr>
<tr>
<td><strong>8th Treatment Extension</strong></td>
<td></td>
<td>4 - 9</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td>23 - 32</td>
</tr>
</tbody>
</table>

**Supervision meetings:**

16 - 28 | 20 | 1000 - 1750 | 1250

**Report writing / planning:**

-- | 4 | -- | 500

**Grand Totals:**

6225 - 8650 | 7,217

---

**General Social Validity Data**

**Social Acceptability Questionnaire Results**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Ratings</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Note:** 7=highly acceptable, highly satisfied, or very helpful
1=not acceptable, not satisfied, or not helpful
**Personalized Social validity Data**

<table>
<thead>
<tr>
<th>Parents' Comfort Level of Presenting the Evocative Situation</th>
<th>Comfort Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions</td>
<td>Pre-treatment</td>
</tr>
<tr>
<td>Gail</td>
<td></td>
</tr>
<tr>
<td>1. Taking away toys</td>
<td>1</td>
</tr>
<tr>
<td>2. Telling child &quot;no&quot; when they ask for something</td>
<td>3</td>
</tr>
<tr>
<td>3. Giving instructions</td>
<td>5</td>
</tr>
<tr>
<td>Dale</td>
<td></td>
</tr>
<tr>
<td>1. Interrupting child's preferred activity and telling them to do homework or other non-preferred activities</td>
<td>4</td>
</tr>
<tr>
<td>Bob</td>
<td></td>
</tr>
<tr>
<td>1. Taking away DS or iPad at meal times</td>
<td>3</td>
</tr>
<tr>
<td>2. Taking away DS or iPad on a transition</td>
<td>3</td>
</tr>
<tr>
<td>3. Interrupting or correcting math work</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note.** 7=very comfortable 1=not comfortable.

---

**Some open-ended responses from the Social Acceptability Questionnaire**

**Please comment:**
I found strategies in how well she did after the analyses of this program. I was amazed in how I could use these techniques and feel comfortable about it.

**1. Please provide any additional comments for our team.**

I would like to thank Rick especially for all the work and studies done on my child. You were wonderful with her. This is a great program. It taught me to how better deal with my daughter's skills of communication. It too have developed patience and how to communicate with her without the hurt doing.
Implications

• If the problem behavior occurs with regularity, it is being reinforced
  
  – Solution involves four main steps:
    1. Identify the reinforcing contingency for the problem behavior
    2. Replace problem behavior by providing the functional reinforcer for socially acceptable alternatives
    3. Teach child to tolerate (intermittent and unpredictable) periods when the reinforcer is unavailable
    4. Extend treatment to relevant people and contexts
Ten Unique Aspects of our Approach
(continued)

7. 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, Western New England College
and Jennifer Bruzek, Vanderbilt University

Published in *Behavior Analysis in Practice* in 2008
(available for free at PubMed Central)

Reminder: Extinction takes many forms, is necessary, but is insufficient and non-preferred

• Function and context predict form of extinction.

• Almost all effective function-based treatments involve extinction

• Extinction should not be used as sole component of a function-based treatment
  – Too many negative side effects, minor integrity breaches have large impact, & it is probably aversive
FCT Example: Treatment Analyses

Hanley, Piazza, Fisher, Maglieri, & Contrucci, JABA, 1997
Ten Unique Aspects of our Approach

8. We always increase the complexity, flexibility, and/or interactional nature of the FCR before teaching delay/denial tolerance

Simple FCR: (“My way” or “My way, please”)

Complex FCR:
“Excuse me”

After a second or two, “Yes, Billy”

“May I have my way, please?”
“Will you play my way, please?”

After a second or two, “Sure, Billy”
Ten Unique Aspects of our Approach

9. We always explicitly teach delay/denial tolerance

This takes up most of our time with children and families (not the functional assessment or teaching the FCRs)

To make treatment practical:
• Either response chaining or stimulus control is involved
• there is always a progressive component (gradual increase in time, stakes, or both)

Reinforcement delay....

Use it if you are willing to teach a “go-to” skill and then chain parent-directed behavior to it

Do this by reinforcing progressively longer chains of adult-directed (expected) behavior to the delayed, functional reinforcer

Do not simply gradually increase the delay between FCR and its reinforcement
As delay increases, FCR weakens & probability of PB increases

With only Progressive Reinforcement Delay:

**Time-based vs. Contingency-based Progressive Delay**

(Lead Author: Mahshid Ghaemmaghami)
5 Critical Aspects of Delay/Denial Tolerance Training

1. Always provide immediate sr for some FCRs
2. Teach an appropriate response to multiple cues of delay, denial, or disappointment
3. Progressively increase the average amount of behavior (not just time) required to terminate the delay
4. Terminate the delay for various amounts of behavior (sometimes expect very little behavior sometimes request larger or more complex types of behavior during the delay)
5. Probably best to not signal how much behavior is required to terminate the delays
Ten Unique Aspects of our Approach

10. We work hard to ensure that the process is agreeable and outcome is meaningful to both children and parents

- Have parents witness and take part in the entire process
- Keep working with child until the wish list goal is met (e.g., going to Six Flags as a family)

Implications

- **Solution is simple to describe but more complex in execution**
  - Specific skills of a BCBA are required
  - We need more and better training programs, hospitals, and schools that embrace behavior analysis

![Cumulative Growth of BACB Certificants](chart.png)

*2013 data incomplete.
Implications

• Medication is not the solution for meltdowns, aggression, or the self-injury exhibited by children with autism
  – No good evidence for medication decreasing these problem behaviors while strengthening socially desirable alternatives
  • When there are demonstrated positive effects, they are merely statistically significant changes in reported levels of problem behavior of unknown social significance
  – and those effects probably represent lethargy or enhanced placebo effects

Considerations

• The speed with which this model will bring about meaningful improvements in problem behavior is probably moderated by:
  – children’s ability to learn via instructions and/or modeling

• The overall success of this model is probably moderated by:
  – the complexity of the contingencies influencing problem behavior
  – people’s willingness and ability to manage those contingencies
Limitations / Future Directions

We are planning on addressing the following limitations:

• The lack of measures showing the effect of consultation throughout day and over an extensive period of time

• Omission of global measures of functioning before and after the consultations

• Omission of participants randomly assigned to either receive consultation versus traditional care

Conclusions

Autism is not a life sentence of:

• Meltdowns
• Aggression
• Self-injury

• Chronic and interfering stereotypy
  • See Potter et al., 2013, JABA
• Sleep problems
  • see Jin, Hanley, & Beaulieu, 2013, JABA
Freedom from these problem behaviors is possible and probable with:

- BCBA-led, objective analysis
- Skill-based treatments yielding functional reinforcers
- Contingency-based delay tolerance procedures

Thank you.

Good luck with all that you do for all who you teach and provide care

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