

Practical Functional Assessment and Treatment of Severe Problem Behavior

A Brief Process Primer and Update



Presented by
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The ideas discussed and research reviewed in this presentation were collaboratively developed by the WNEU *Functional Assessment and Treatment Research and Practice* group (2012-present):

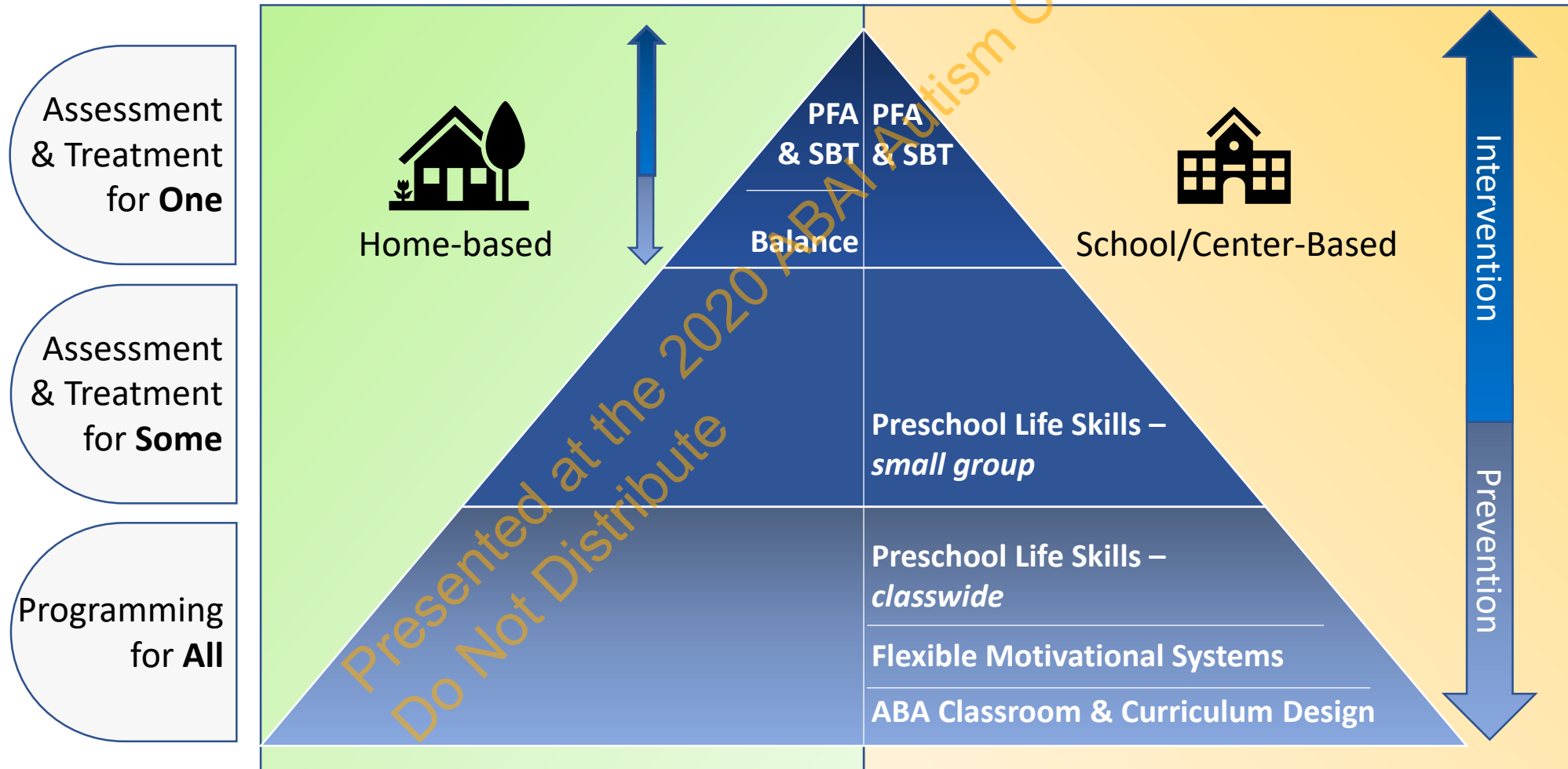
Laura Hanratty, Nick Vanselow, Sandy Jin, Joana Santiago, Mahshid Ghaemmaghmi, Joshua Jessel, Jessica Slaton, Ellen Gage, Robin Landa, Christy Warner, Shannon Ward, Tanya Mouzakes, Adithyan Rajaraman, Holly Gover, Kelsey Ruppel, Cory Whelan, Rachel Metras, Kara LaCroix, Emily Sullivan, Matthew Carbone, & Anthony Cammilleri

FTF Behavioral Consulting was formed in January of 2019 to fulfill the demand for training and consultation in practical functional assessment and skill-based treatment procedures.

Full-time consultants include: Dr. Mahshid Ghaemmaghmi, Dr. Kelsey Ruppel, Holly Gover, Dr. Anthony Cammilleri, & Shannon Ward

Part-time consultants include: Dr. Joshua Jessel, Dr. Adithyan Rajaraman, Rachel Metras, Cory Whelan, Kara LaCroix, & Matthew Carbone

FTF Behavioral Consulting relies on a Response to Intervention (RTI) model for addressing problem behavior



The Problem

- Problem behavior is prevalent among children with autism and is sometimes severe and intractable
- Many “solutions” often exacerbate or prolong the problem
 - *Behavior modification*
 - Behavior medication
 - *Behavior mollification*
 - Behavior micro-analysis
 - Behavior remediation without developing a replacement repertoire

A Probable Solution

PFA & SBT

- **Practical Functional Assessment and Skill-Based Treatment**
 - Shown to produce socially meaningful outcomes
 - Shown to be a socially valid and generally applicable process
 - Shown to be effective without coercion or physical management

PFA and SBT are consistent with Trauma-Informed Care

Safety



Ensuring physical and emotional safety

Choice



Individual has choice and control

Collaboration



Definitions

Making decisions with the individual and sharing power

Trustworthiness



Task clarity, consistency, and Interpersonal Boundaries

Empowerment



Prioritizing empowerment and skill building

Principles in Practice

Priorities

Safety

Televisability (dignity)

Rapport

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Assumptions

Multiple events co-occur to evoke problem behavior

e.g., request to stop doing what he is doing, presentation of difficult/non-preferred task to complete alone, while no one honors any mands, preferences, etc.

Multiple events occur simultaneously to reinforce (strengthen) problem behavior

e.g., escape from _____ to access _____ while people are available to _____

Different forms of problem behavior by the same child are often maintained by the same **synthesized reinforcement contingency**

**Socially valid outcomes from the
PFA and SBT process are
possible**

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Effects deemed **meaningful** by parents and teachers following analysis and treatment involving synthesized reinforcement contingencies

Similar effects reported in these studies from other research groups

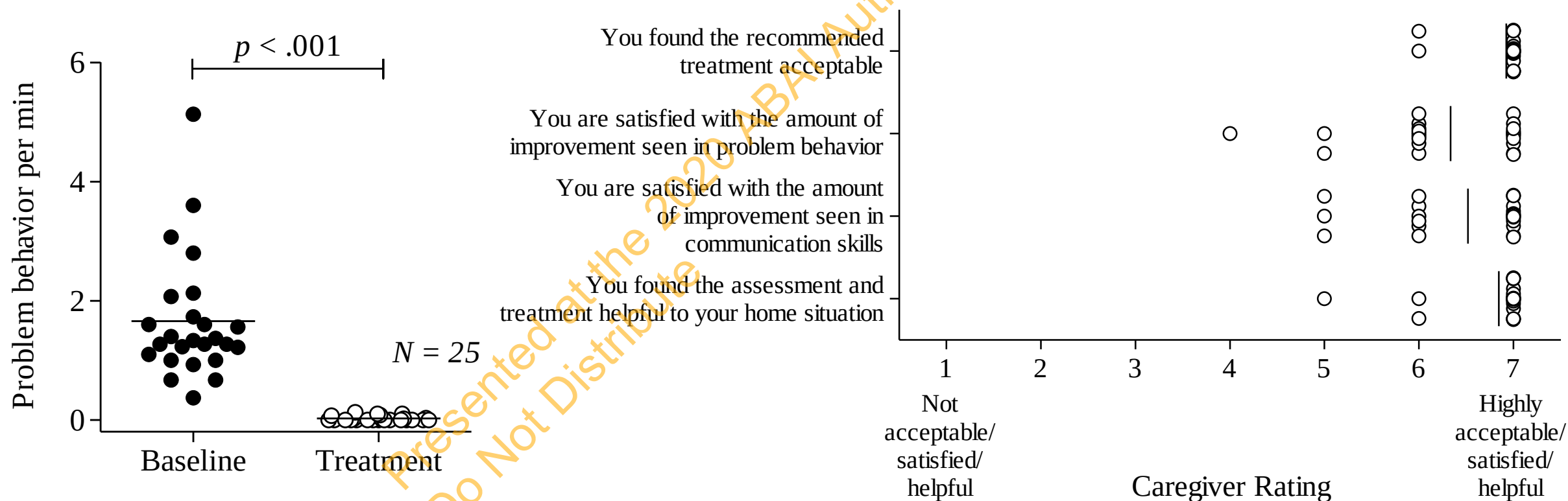
Journal of Applied Behavior Analysis JOURNAL OF APPLIED BEHAVIOR ANALYSIS2014, 47, 16–36NUMBER 1 (SPRING) PRODUCING MEANINGFUL IMPROVEMENTS IN PROBLEM BEHAVIOR OF CHILDREN WITH AUTISM VIA SYNTHESIZED ANALYSES AND TREATMENTS GREGORY P. HANLEY, C. SANDY JIN, NICHOLAS R. VANSELOW, AND LAURA A. HANRATTY WESTERN NEW ENGLAND UNIVERSITY (2014) <i>JABA</i>		
J Autism Dev Disord DOI 10.1007/s10803-015-2617-0 ORIGINAL PAPER The Generality of Interview-Informed Functional Analyses: Systematic Replications in School and Home Joana L. Santiago¹ · Gregory P. Hanley^{2,3} · Keira Moore^{4,5} · C. Sandy Jin^{4,6} (2016) <i>JADD</i>		
	Strand & Eldevik	(2017) <i>Beh. Int.</i>
	Herman, Healy, & Lydon	(2018) <i>Dev. Ne.</i>
	Jessel, Ingvarsson, Metras, Hillary, & Whipple	(2018) <i>JABA</i>
	Beaulieu, Clausen, Williams, & Herscovitch	(2018) <i>BAP</i>
	Taylor, Phillips, & Gertzog	(2018) <i>Beh. Int.</i>
	Chusid & Beaulieu	(2018) <i>JABA</i>
	Ferguson, Leaf, Cihon, Milne, Leaf, McEachin, & Leaf	(2019) <i>ETC</i>

**Socially valid outcomes from
the PFA and SBT processes are
probable**

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Jessel, Ingvarsson, Metras, Hillary, & Whipple (2018, *JABA*)

Achieving Socially Significant Reductions in Problem Behavior following the Interview-Informed Synthesized Contingency Analysis: A Summary of 25 Outpatient Applications



**Similar CCCSD evidence for any other functional assessment process does not exist.*

Procedures

*What is involved in a Practical Functional Assessment (PFA) process?

- An open-ended interview (always)
- A functional analysis (always)
 - An IISCA
 - An Interview-Informed
 - Synthesized Contingency
 - Analysis

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Aim of a PFA, the IISCA in particular?

NOT to identify the function of a problem behavior

**Aim is strong control of problem behavior
via ecologically-relevant reinforcement contingency**

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UPDATED IISCA RECOMMENDATIONS

1. Create clear SR and EO locations/periods

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Create clear SR and EO periods

Alternatives:

1. Floor and table
2. Two tables, separated
3. Two tables in L-shape with spinning chair
4. Two bins
5. One Table with signals provided by analyst

EO=Standing

SR=Squatting

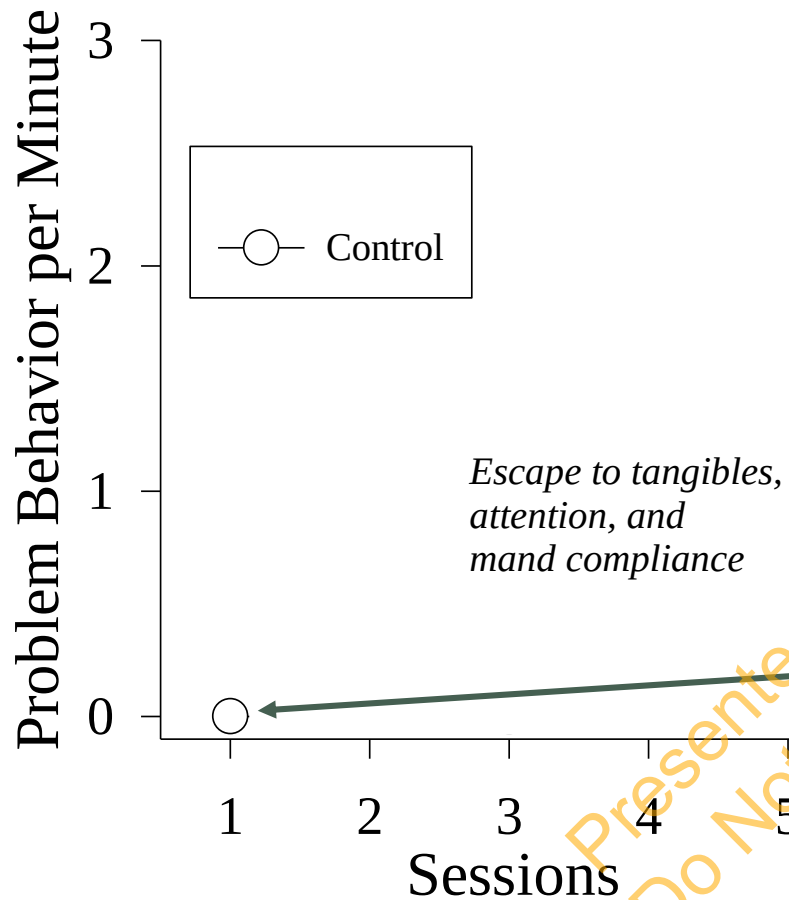
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UPDATED IISCA RECOMMENDATIONS

1. Create clear SR and EO locations/periods
2. Have child/client directly enter and experience the SR context
 - a. Access to multiple preferred activities
 - b. Experience, promise of no instructions, redirections, or restrictions
 - i. Freedom of movement
 - ii. Stereotypy unrestricted and admired
 - c. Availability of attention/interaction, mand compliance
3. Relax. Do not begin data collection until child is happy, relaxed, & engaged (HRE)
4. Have parent or staff who understands the child/client present for analysis; ask about HRE; inquire about their understanding and comfort

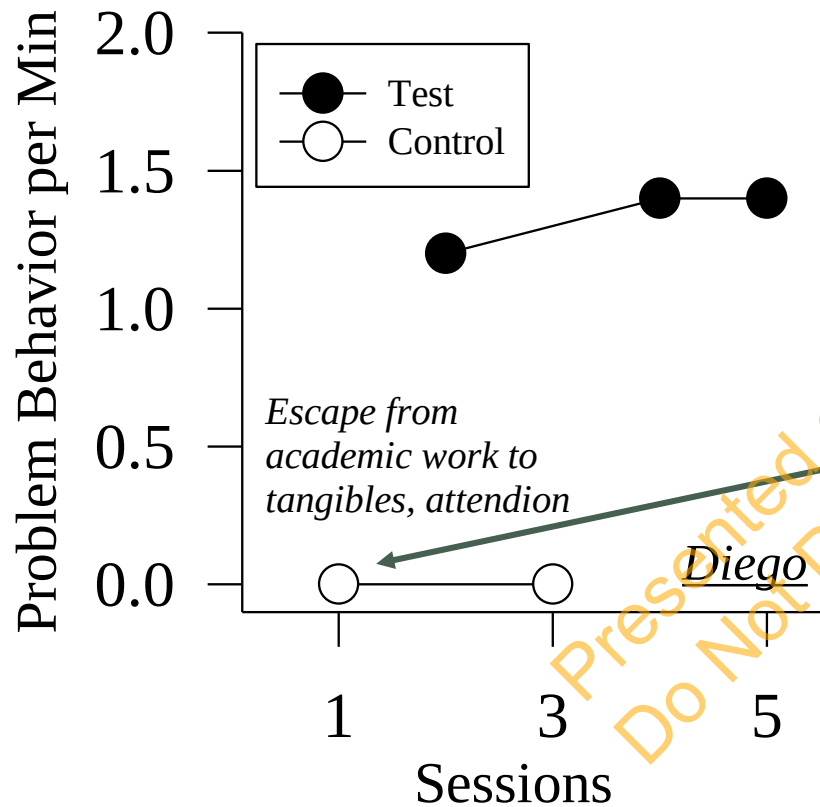
Example IISCA: *Brandon*

brief sample of SR



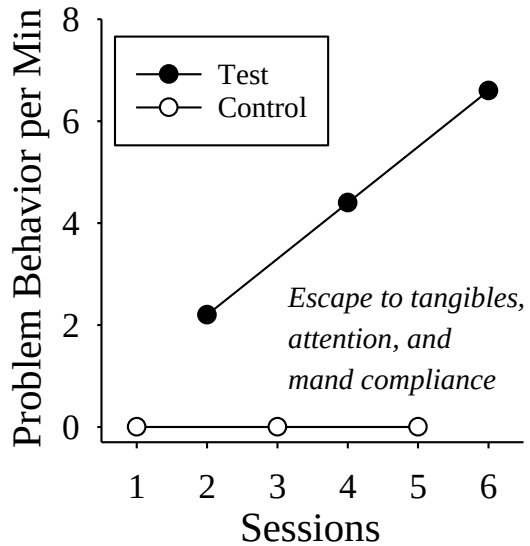
Diego / Initial SR period

- Age: 11
- Diagnosis: Autism
- Language Level: Speaks in Short Sentences
- Referred for: Self-injurious behavior, Aggression, Property Destruction



Analysis - Jeffrey

- Age: 9
- Diagnosis: Attention Deficit Hyperactivity Disorder, Generalized Anxiety Disorder
- Language Level: Speaks with Sophistication
- Referred for: Aggression, Elopement, Meltdowns
 - required several police escorts from school



IISCA: Initial SR period

UPDATED IISCA RECOMMENDATIONS

1. Create clear SR and EO locations
2. Have child/client enter observation space upon arrival and experience the SR context
3. Relax. Do not begin data collection until child is happy, relaxed, & engaged
4. Have parent or staff who understands the child/client present for analysis; ask about H, R, & E, inquire about their understanding and comfort
5. Rely on an “open-door analysis;” observe where client goes and what they do

UPDATED IISCA RECOMMENDATIONS

1. Create clear SR and EO locations
2. Have child/client enter observation space upon arrival and experience the SR context
3. Relax. Do not begin data collection until child is happy, relaxed, & engaged
4. Have parent or staff who understands the child/client present for analysis; ask about H, R, & E, inquire about their understanding and comfort
5. Rely on an “open-door analysis,” observe where client who has left goes and what they do
6. Videotape all sessions (consider app for data collection)
7. Record dangerous and non-dangerous PB (reported to co-occur), whether in SR or EO, and engagement during SR

R1s: _____ % engagement: _____
R2s: _____ % of PBs in EO: _____

Minute	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Second	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59
If in EO	R1																	
	R2																	
EO Line																		
SR Line																		
If in SR	R2																	
	R1																	
Engaged																		

Second		0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59	0-30	31-59				
If in EO	R1																																				
	R2																																				
EO Line																																					
SR Line																																					
If in SR	R2																																				
	R1																																				
Engaged																																					

Instructions: 1. Draw one a horizontal line when in SR, stop line and start new one above when EO is cued and progressively implemented, start line again when SR is cued. 2. Draw a vertical line for each problem behavior, with R1 lines being extended and R2 lines being relatively short. 3. If child/client is happy, relaxed, and engaged for the majority of the SR interval, place a check in the 30-s interval. 4. Impose the initial EO, only after at least 3 min of continuous, happy, and relaxed engagement; impose subsequent Eos after 30 s of continuous, happy, and relaxed engagement. 5. End the analysis after only one or a couple R2s occur within 5s of the EO cue/progression, one or less R2s and zero R1s occur in the subsequent SR period, and the child re-engages within about 10 s after SR is delivered (i.e., continue analysis if any of these conditions are not met; modify the analysis if these conditions are not met within 30 min

UPDATED IISCA RECOMMENDATIONS

8. Provide:

all suspected reinforcers

immediately following

the first response suspected as being part of the response class

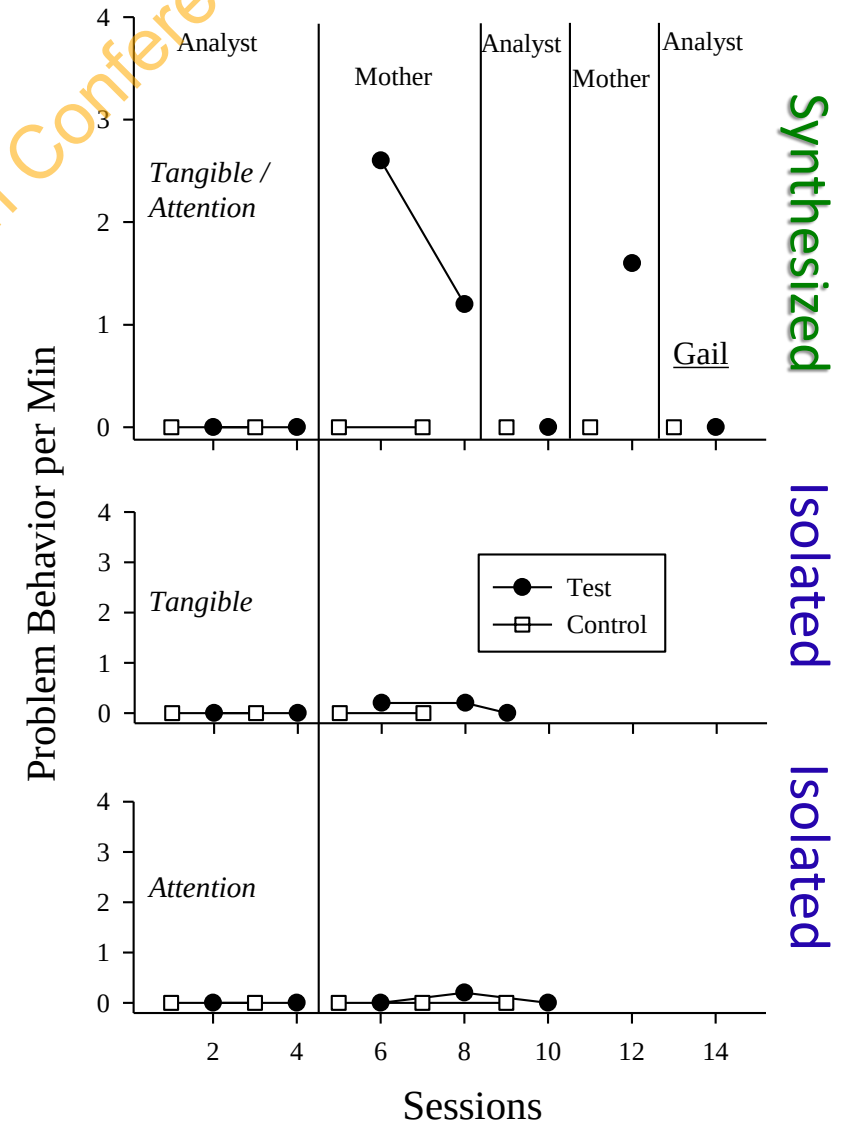
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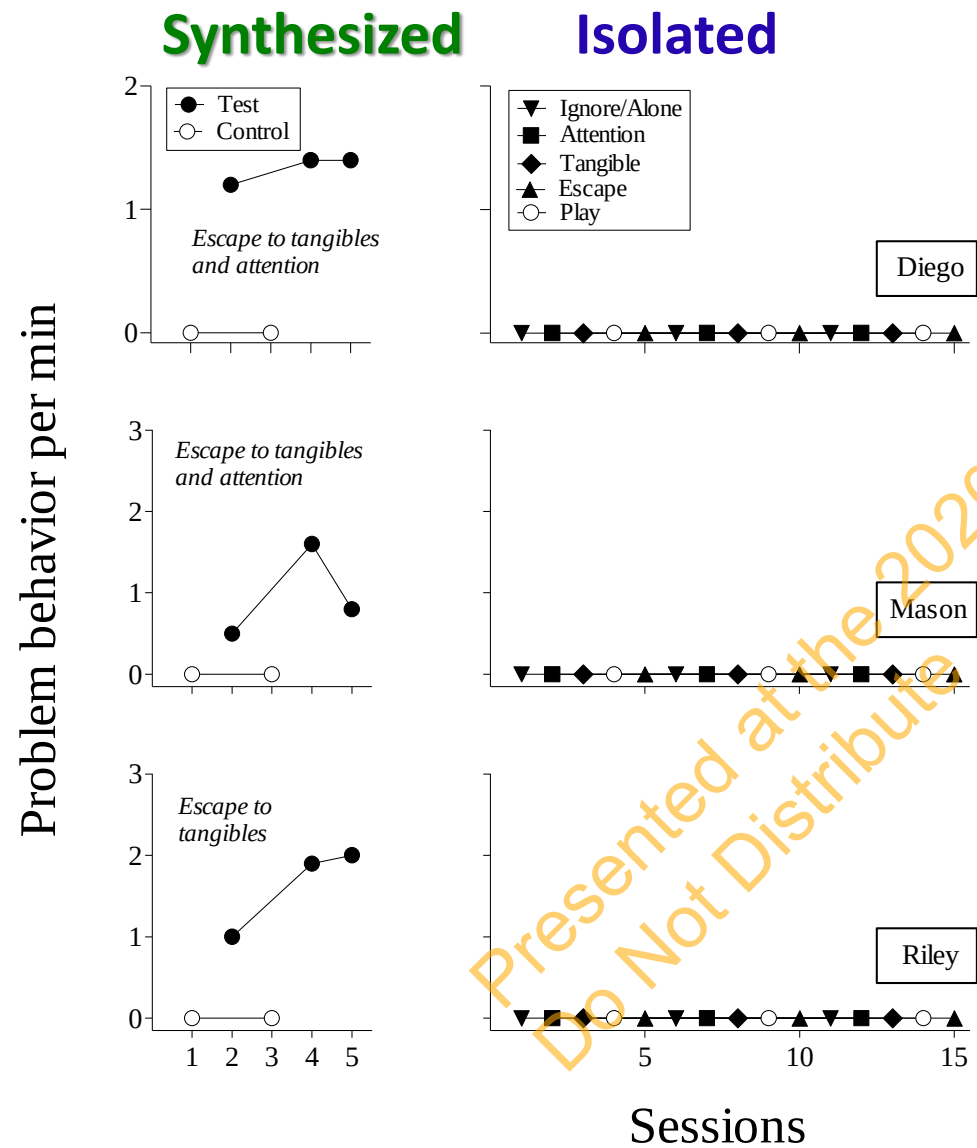
From Hanley et al., 2014, *JABA*

Case Example
Gail, 3 yo, dx: PDD-NOS
Setting: Clinic

Isolated contingencies
sometimes do not control
behavior whereas **synthesized**
contingencies do.

*This is not a paradox, just a
classic example of an interaction
without main effects*





Synthesized

Comparative analyses usually show that synthesized reinforcement contingencies influence problem behavior whereas isolated ones do not

Whole contingencies have properties that sometimes cannot be found in the parts of the contingency

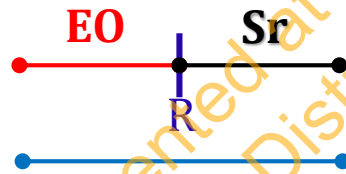
Single tests of individual reinforcers are not capable of verifying the irrelevance of synthesized reinforcers

With single reinforcers, there is relatively short **motivational distance travelled** as child transitions from:

no skittle sliver to having a skittle sliver

work to no work

no attention to attention (reprimands)

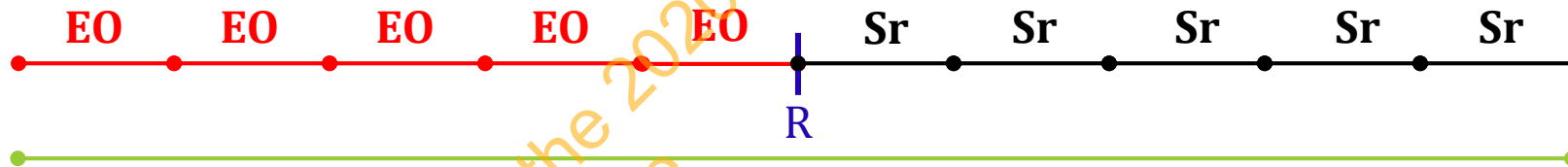


With IISCA, there is relatively long **motivational distance travelled** as child transitions from:

No tangibles, no mand compliance,
limited sensory reinforcers,
no high quality attention, & work

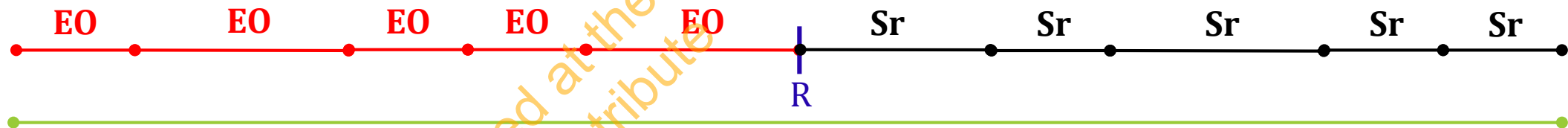
to

tangibles, mand compliance,
all sensory reinforcers,
high quality attention, and no work



With IISCA, there is relatively long **motivational distance travelled** as child transitions from:

But, don't forget about possible interactions:



*which probably creates even greater **motivational distance travelled***

UPDATED IISCA RECOMMENDATIONS

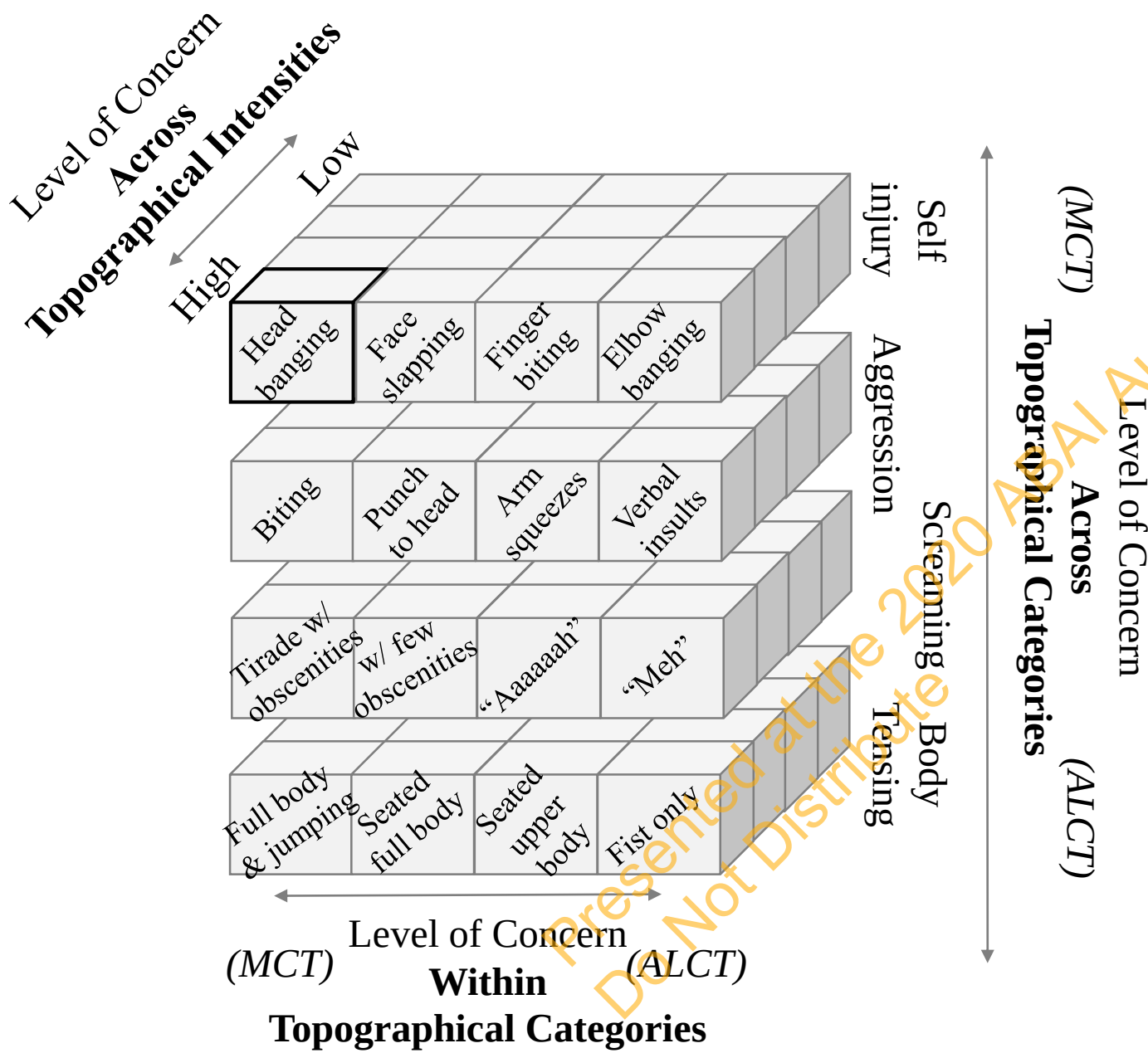
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all suspected reinforcers

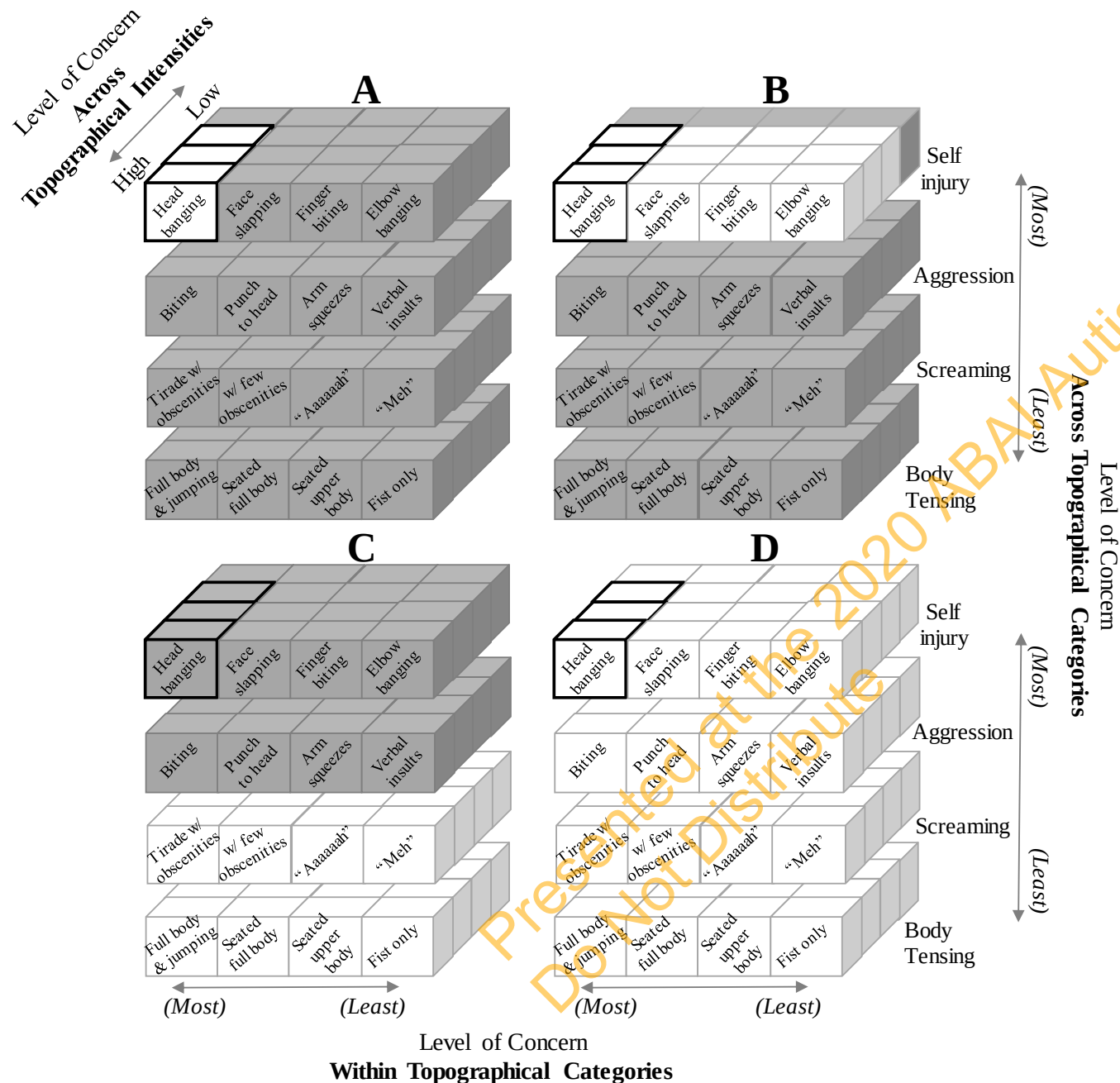
immediately following

the first response suspected as being part of the response class

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This schematic provides a visual display of a possible repertoire of problem behavior whose members were reported by caregivers as co-occurring in the same evocative situations. If the primary concern of the caregivers is high-intensity head banging, a behavior analyst must then decide on the contingency class for their functional analysis, weighing the factors of risk, efficiency, and inference.



Select the responses to be consequated in analysis:

A

B

C or

D ?

- Age: 5
- Diagnosis: Autism
- Language Level: Single word utterances
- Referred for: Self-Injury, Aggression, Property Destruction

Another example of
relatively closed contingency class



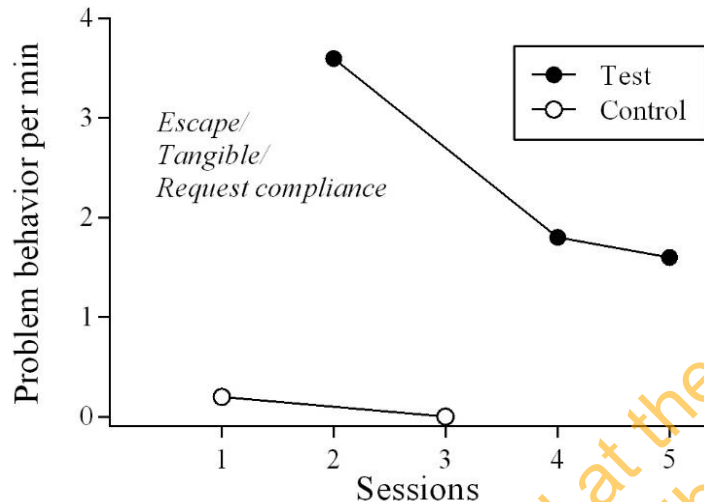
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Another example of
relatively open contingency class



That which you can safely infer from your functional analysis:

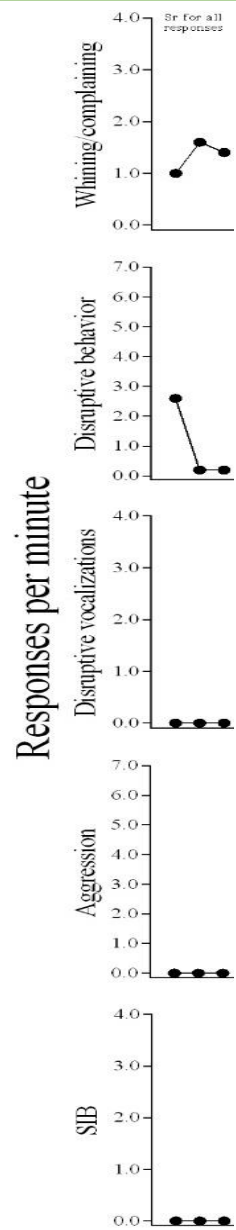
✓ Response class membership



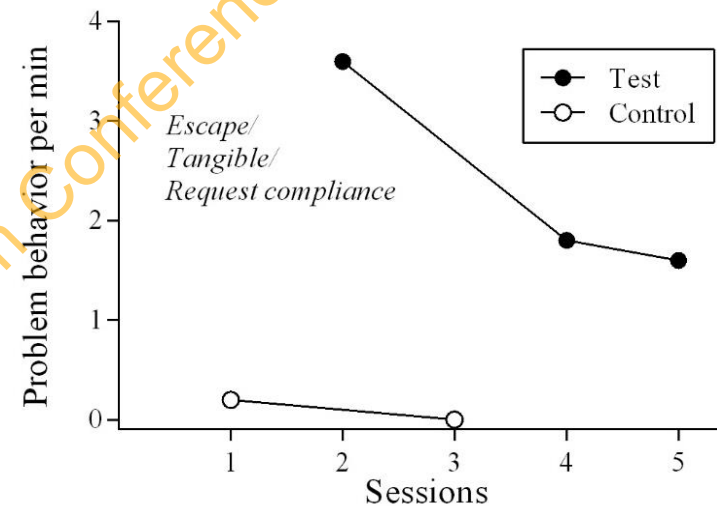
Problem Behaviors reported to co-occur (in order of concern)

- A. SIB
- B. Aggression
- C. Disruptive Behavior
- D. Disruptive vocalizations
- E. Whining/complaining

If control is shown over behavior E, for example, **and caregivers report that behavior A, B, C, D, & E co-occur in similar situations,** then we can infer that the reinforcers for behaviors A and E are the probably same

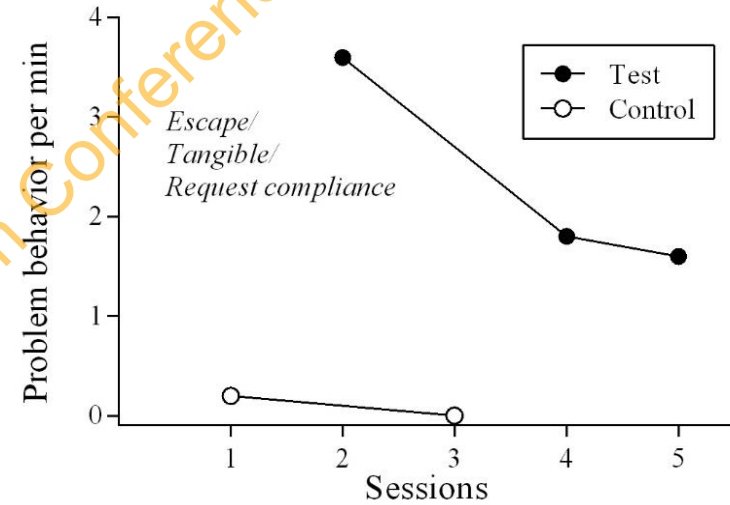
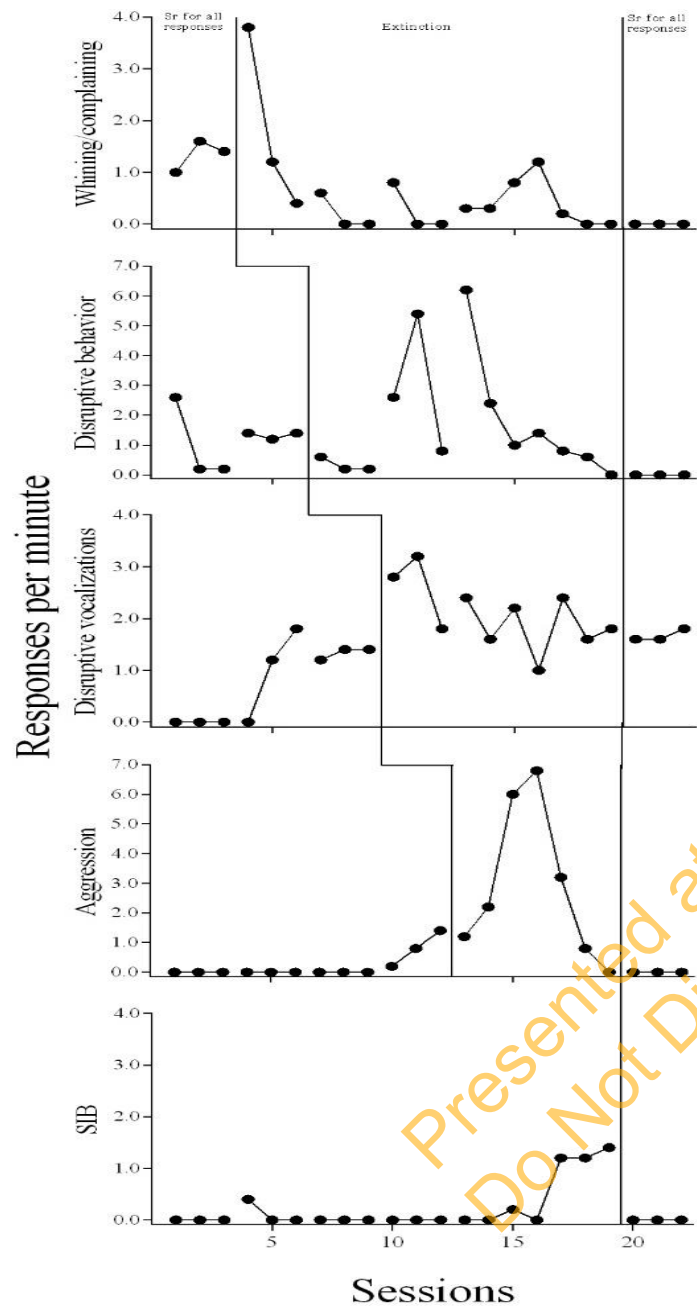


Sessions



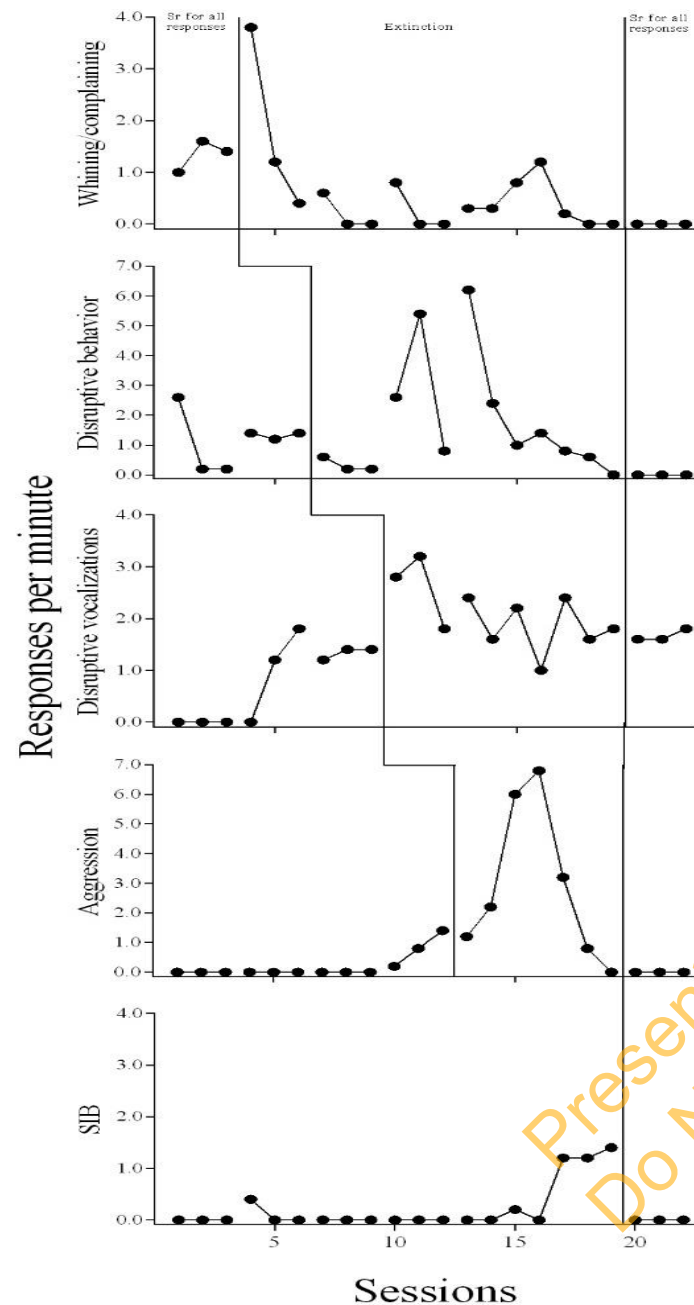
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- SIB
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Problem Behaviors reported to co-occur (in order of concern)

- A. SIB
- B. Aggression
- C. Disruptive Behavior
- D. Disruptive vocalizations
- E. Whining/complaining



This analysis shows all forms of problem behavior are influenced by the same synthesized reinforcement contingency.

This happened for 9 of 10 consecutive analyses (Warner et al., 2018)

This also happens when others conduct progressive extinction analyses (Smith and Churchill, 2002, Borrero & Borrero, 2008, Herscovitch et al., 2009)

Which is why it is a reasonable thing to make inferential leap.

UPDATED IISCA RECOMMENDATIONS

8. Provide all suspected reinforcers immediately following the first response suspected as being part of the response class
9. Be sure to clearly signal the delivery of the reinforcer with visual and audio cue
10. Implement the next EO after child/client has been HRE for at least 30 s (do not implement EOs every 30 s)

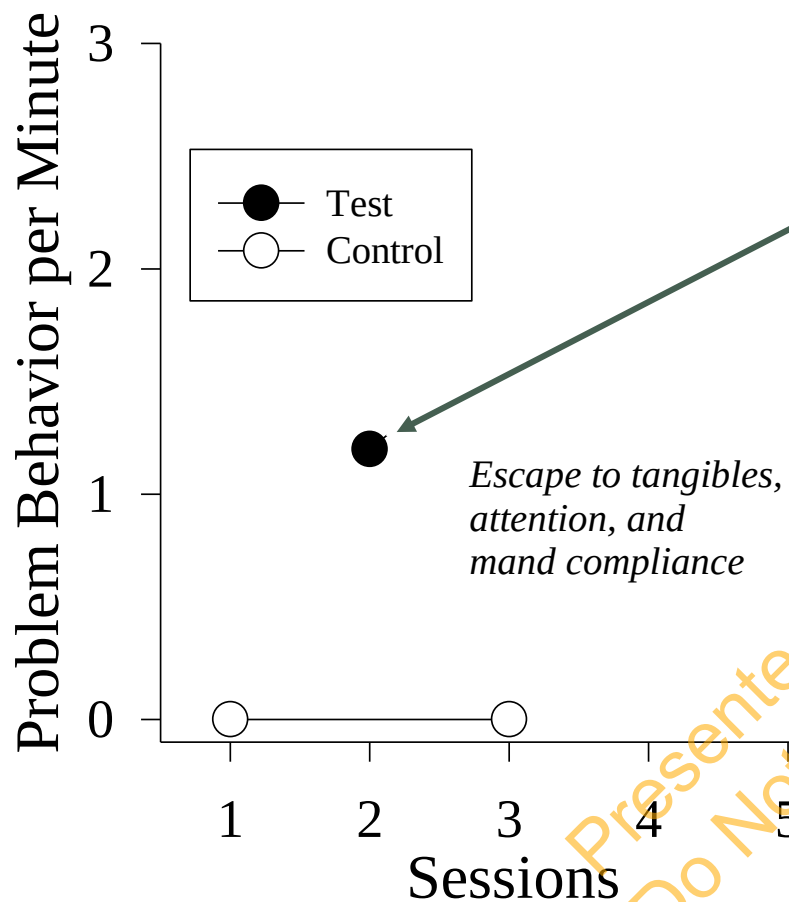
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Later EO
presentation

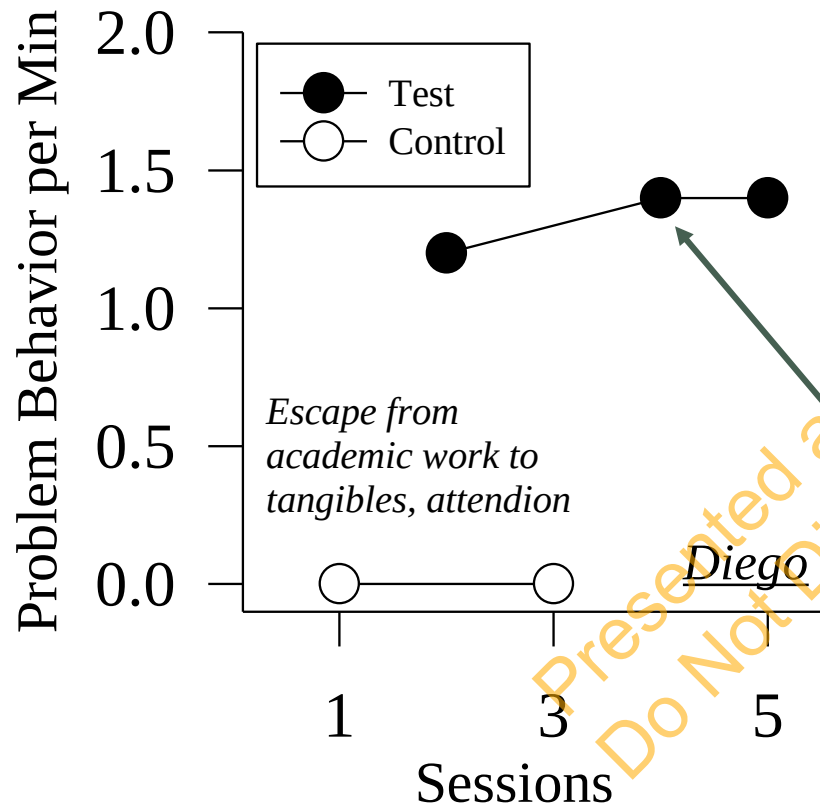
Brandon

brief sample of 1st and 2nd EO presentations



Diego / 8th EO presentation

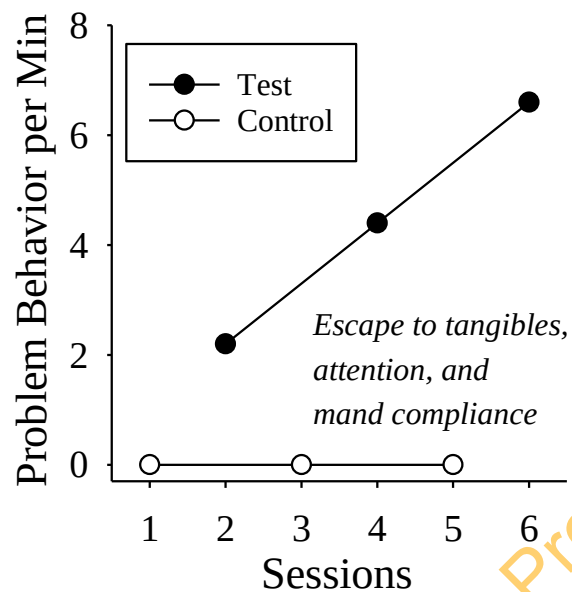
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- Language Level: Speaks in Short Sentences
- Referred for: Self-injurious behavior, Aggression, Property Destruction



Analysis - Jeffrey

Early EO presentation

- Age: 9
- Diagnosis: Attention Deficit Hyperactivity Disorder, Generalized Anxiety Disorder
- Language Level: Speaks with Sophistication
- Referred for: Aggression, Elopement, Meltdowns
 - required several police escorts from school



Later EO presentation

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UPDATED IISCA RECOMMENDATIONS

11. Progressively implement the EO each time; know this foreshadows the same actions you will take as you extend the CAB chains in treatment

Stand

Softly clap

Close space and stand with side to child/client

Give instruction to stop doing/moving & relinquish object/toy/game

- use 3-step (tell, show, help) if instruction may be misunderstood

- use 2-step (tell, help) prompting if only motivational issue

Give instruction to transition to table of high expectations (same prompting concept as above)

Give prompts to get ready to learn (and manage body position and stereotypy)

Teach while holding the highest of expectation

(consider if attention needs to be minimized/diverted during instruction)

UPDATED IISCA RECOMMENDATIONS

12. Make all decisions based on child/client behavior

e.g., when to implement SR (immediately following 1st PB)

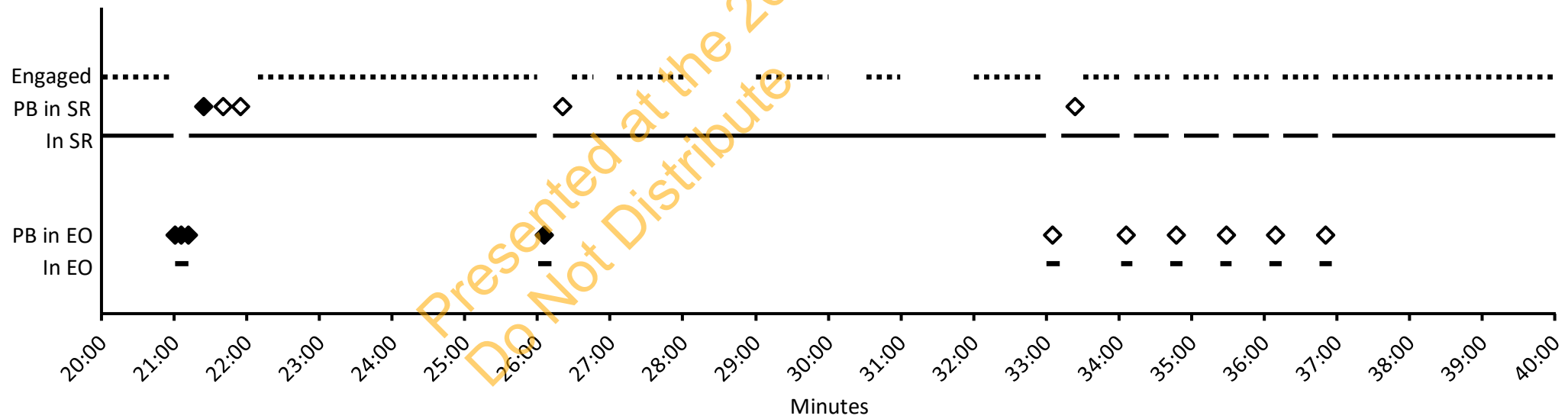
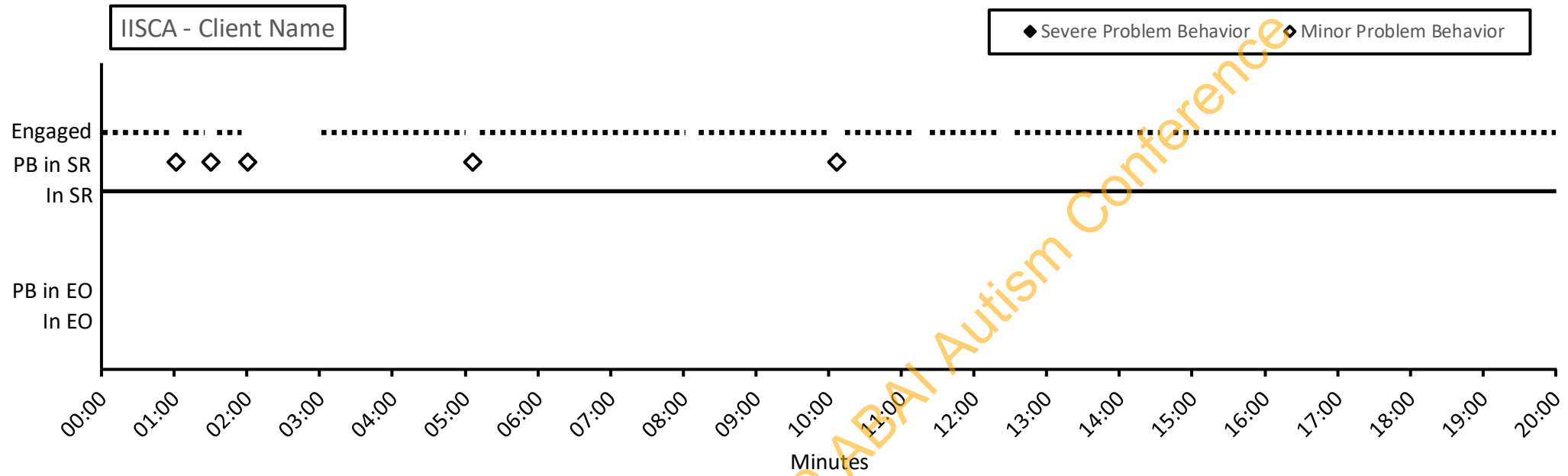
when to implement EO (after at least 30 s of HRE)

when to end analysis (after 5 quick turn offs with quick returns to HRE)

do not make decisions based on mere passage of time:

e.g., 30 s of SR, 5-min sessions, 30 min analysis

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UPDATED IISCA RECOMMENDATIONS

13. All have authority to terminate the analysis at any time

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What are the hallmarks of an effective analysis?

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**In
SR**

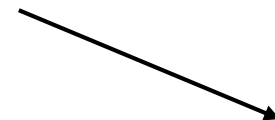
**Happy,
Relaxed, &
Engaged**

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**In
SR**

**In
EO**

**Happy,
Relaxed, &
Engaged**



**PB Turned On Sometimes
PB Turned Off Each Time**

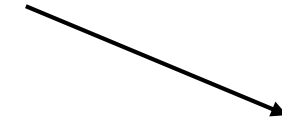
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**In
SR**

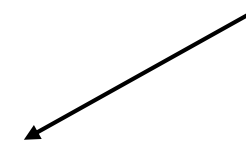
**In
EO**

When returned to SR

**Happy,
Relaxed, &
Engaged**



**PB Turned On Sometimes
PB Turned Off Each Time**



**Happy,
Relaxed, &
Engaged**

1. Was the analysis safe? (Anybody hurt or property destroyed?) and Dignified?
2. Was the entire analysis televisable?
3. Did problem behavior reduce in intensity & latency from EO during analysis?

**In
SR**

**In
EO**

When returned to SR

1. Was the analysis safe? (Anybody hurt or property destroyed?) **YES**
2. Was the entire analysis televisable? **YES**
3. Did problem behavior reduce in intensity & latency from EO during analysis? **YES**

**Happy,
Relaxed, &
Engaged**

**PB Turned On Sometimes
PB Turned Off Each Time**

**Happy,
Relaxed, &
Engaged**

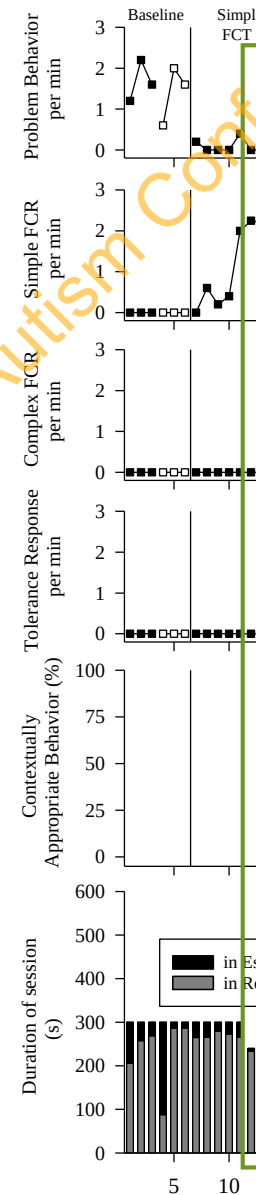
Teach an SFCR

Detailed review of the skills-based treatment

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Brandon / Simple FCT

- Age: 4
- Diagnosis: None
- Language Level: Speaks in Short Sentences
- Referred for: Aggression, Meltdowns, Noncompliance



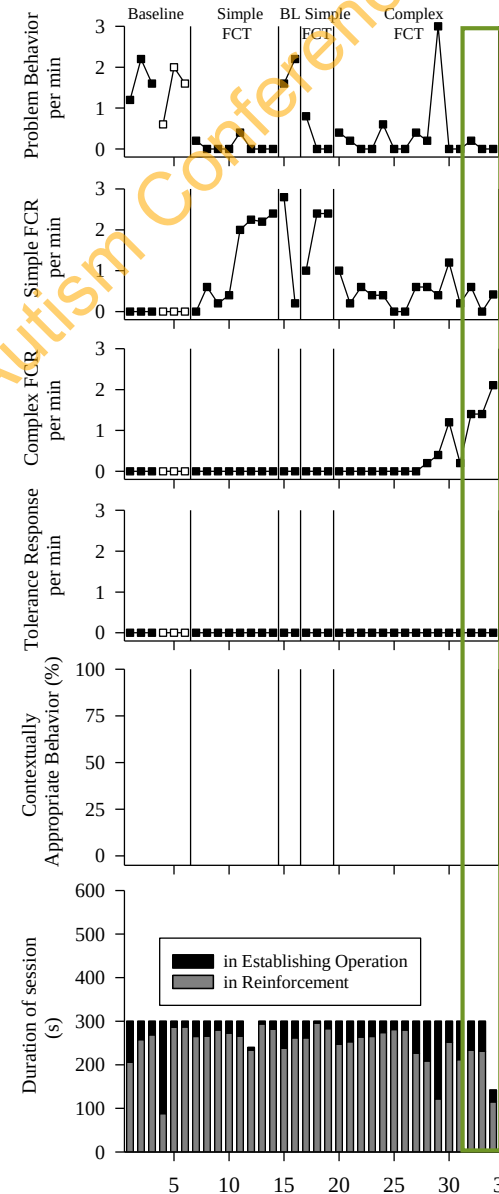
TIPS:

1. Select initial FCRs that are:
 - Low effort
 - Promptable
 - Novel
 - Omnibus
2. Initially prompt prior to when PB was evoked in the analysis.
3. If PB occurs, prompt the FCR and reinforce the prompted response

**See page 2 of SBT Notebook*

Brandon / Complex FCT

- Age: 4
- Diagnosis: None
- Language Level: Speaks in Short Sentences
- Referred for: Aggression, Meltdowns, Noncompliance



TIPS:

Shape until FCR contains:

An obtaining a listener response (e.g., "Excuse me")

A generative autoclitic frame (e.g., "May I have ____")

A social nicety

Proper tone, pace, volume, articulation

See Ghaemmaghami et al.
(JABA, 2018)

**See page 2 of SBT Notebook*

FCT – Raj

Age: 5 Diagnosis: Autism Language Level: Single word utterances

Referred for: Self-Injury, Aggression, Property Destruction

TIP:

**Or at least be sure
the cFCR has some
“intentionality”**

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FCT – Cole

Age: 8 Diagnosis: Autism Language Level: Fully Fluent Speech
Referred for: Self-Injury, Aggression, Property Destruction

**But once FCR is shaped
until it contains:**

An obtaining a listener
response (e.g., “Excuse me”)

A generative autoclitic
frame (e.g., “May I have
——”)

A social nicety

Proper tone, pace, volume,
articulation

.....

FCT – Cole

Age: 8 Diagnosis: Autism Language Level: Fully Fluent Speech

Referred for: Self-Injury, Aggression, Property Destruction

It is sometimes differentiated into specific mands prior to tolerance training:

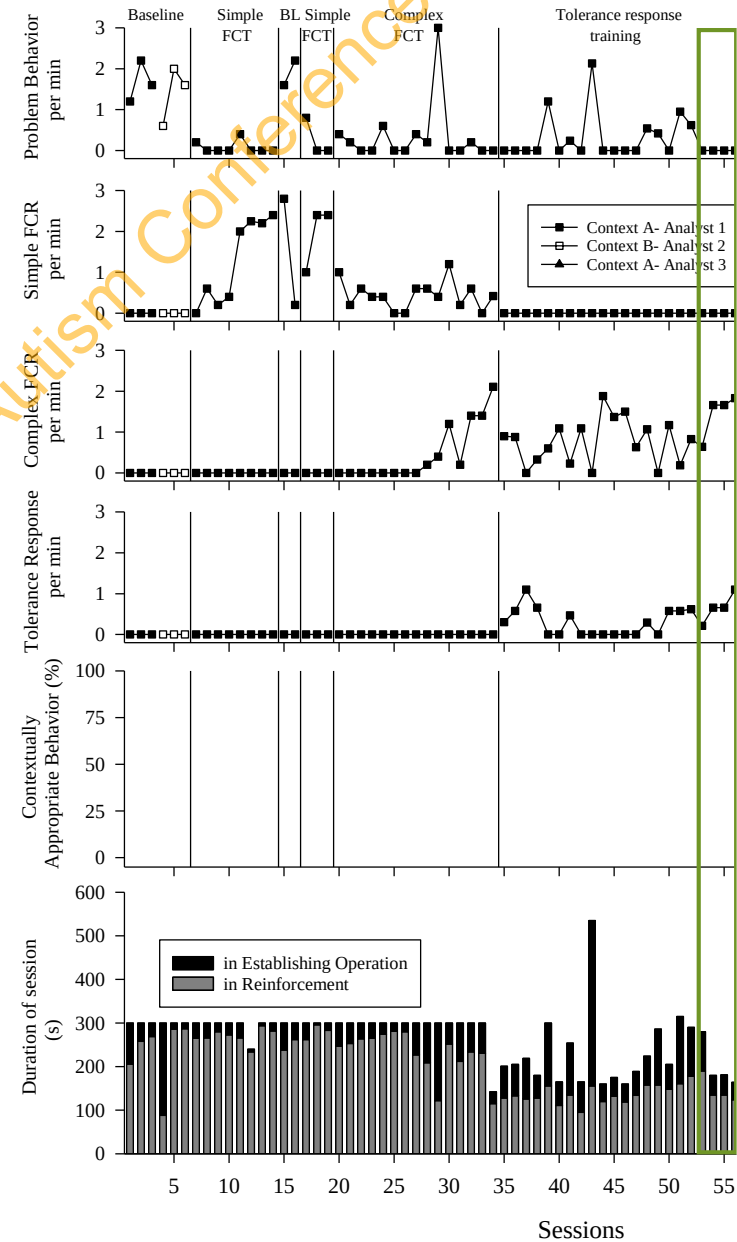
- *An obtaining a listener response*
- *A break response*
- *An access to preferred toys response*
- *An attention recruitment response*

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Brandon / TRT

**See page 2 of
SBT Notebook*

- Age: 4
- Diagnosis: None
- Language Level: Speaks in Short Sentences
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Simple FCR

Progressing EO
to evoke FCR

Complex FCR

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Skill-Based Treatment: Steps and Data Sheets (Revised: May 2019; FTF Behavioral Consulting)

Step #	Description
1	Conducted interview
2	Attended training
3	Designed and initiated analysis
4	Obtained zero problem behavior and high engagement in control context of functional analysis
5	Adequately controlled problem behavior in analysis with an interview-informed, synthesized reinforcement contingency
6	Developed protocol for out-of-practice-sessions time
7	Initiated treatment within practice sessions (agreed on prompting procedures and responses to problem behavior in practice sessions)
8	Completed simple functional communication training (FCT)
9	Completed complex FCT
10	Completed tolerance training

Skill-Based Treatment: Steps and Data Sheets (Revised: May 2019; FTF Behavioral Consulting)

Step #	Description
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11	Designed contextually appropriate behavior (CAB) branches
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12	CAB 1: Gained instructional control of stopping ongoing activity & relinquishing all positive reinforcers
-----------	--

13	CAB 2: Gained instructional control of transitioning to alternative area and readying to listen/learn
-----------	--

14	CAB 3: Gained instructional control of a few (1-3) responses/time units of cooperation within a single, relevant activity
-----------	--

15	CAB 4: Gained instructional control of a few responses/time units of cooperation within multiple relevant activities
-----------	---

16	CAB 5: Gained instructional control of 1 to 10 or more responses/time units of cooperation w/in multiple activities
-----------	--

17	CAB 6: Gained instructional control of 1 to 10 or more responses/time units of cooperation w/in multiple activities while being challenged
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Wicked important tips when developing Contextually Appropriate Behavior (CABs)

1. **Start by gaining instructional control over relinquishing positive reinforcers.**

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7. Describe the initial contextually appropriate behaviors (CAB 1). These are the behaviors that will be instructed following tolerance responses and strengthened via the termination of the delay (i.e., access to the synthesized reinforcers).

CAB 1: Instructional control of stopping ongoing activity & relinquishing all positive reinforcers

Example:

- a) “Pause the game please.”
- b) “Hand me the iPad.”
- c) *prompt or wait for the look to you*

Wicked important tips when developing Contextually Appropriate Behavior (CABs)

1. **Start by gaining instructional control over relinquishing positive reinforcers.**
2. **Then gain instructional control over transitioning and readying to listen/learn**

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CAB 2: Instructional control of transitioning to alternative area and readying to listen/learn

- a)
- b)
- c)
- d)

Examples:

To table-top academics:

- a) stand up
- b) walk to that table
- c) sit up in the chair
- d) hand in lap

To participate in gym games:

- a) turn to me
- b) walk over there
- c) get ready like this
(model stance)

To play alone:

- a) stand up
- b) walk over there
- c) take a seat

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Wicked important tips when developing Contextually Appropriate Behavior (CABs)

1. Start by gaining instructional control over relinquishing positive reinforcers.
2. Then gain instructional control over transitioning and readying to listen/learn
3. Then gradually increase the average amount of *behavior* (not just time) required to terminate the delay

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CAB 3: Instructional control of a few (1-3) responses/time units of cooperation within a single, relevant activity

Activity:

CAB 4: Instructional control of a few (1-3) responses/time units of cooperation within **multiple** relevant activities

Activity:

Activity:

Activity:

CAB 5: Instructional control of **1-12+** responses/time units of cooperation w/in multiple activities

Examples:

To table-top academics:

- a.) Show me the ____
- b.) Show me the ____
- c.) Show me the ____

To participate in gym games:

- a) Catch
- b) Throw to me
- c) Put ball in basket

To....

Consider this progression from 1, 2, 3:

- a. 1, 3, 5
- b. 1, 3, 6, 10
- c. 1, 3, 6, 10, 12+

Wicked Important Guidelines when Developing Contextually Appropriate Behavior (CABs)

1. Start by gaining instructional control over relinquishing positive reinforcers.
2. Then gain instructional control over transitioning and readying to listen/learn
3. Then gradually 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)

Organization: _____

Client Name: _____

Skills Teacher: _____

Supervisor: _____

Diversified Chaining Branch: _____

/ New people: _____

New locations: _____

Step	Date	Responses Reinforced Write in specific form; note if form changes within step	Progressively Changing Response Requirements									
			Trial 1 EO	SR	Trial 2 EO	SR	Trial 3 EO	SR	Trial 4 EO	SR	Trial 5 EO	SR
14		CFCR, TR, CAB 1, CAB 2, or CAB3	TR	Eng	CAB2	Eng	CAB1	Eng	cFCR	Eng	CAB3	Eng
14		Communicate, tolerate denial,	CAB2	Eng	cFCR	Eng	CAB3	Eng	TR	Eng	CAB1	Eng
14		relinquish positive reinforcers,	CAB3	Eng	cFCR	Eng	CAB1	Eng	CAB2	Eng	TR	Eng
14		transition and get ready to learn, and/or	cFCR	Eng	CAB1	Eng	TR	Eng	CAB3	Eng	CAB2	Eng
14		cooperate/comply/respond accurately	TR	Eng	CAB3	Eng	CAB2	Eng	cFCR	Eng	CAB1	Eng
14		to 1-3 instructions within 1 activity	CAB3	Eng	cFCR	Eng	CAB2	Eng	TR	Eng	CAB2	Eng
14			CAB1	Eng	cFCR	Eng	CAB3	Eng	CAB2	Eng	TR	Eng
14			cFCR	Eng	CAB2	Eng	CAB1	Eng	TR	Eng	CAB3	Eng
14			TR	Eng	CAB2	Eng	CAB1	Eng	cFCR	Eng	CAB3	Eng
14			CAB3	Eng	cFCR	Eng	CAB1	Eng	CAB2	Eng	TR	Eng
14			cFCR	Eng	CAB1	Eng	TR	Eng	CAB3	Eng	CAB2	Eng
14			TR	Eng	CAB3	Eng	CAB2	Eng	cFCR	Eng	CAB1	Eng
14			CAB3	Eng	cFCR	Eng	CAB2	Eng	TR	Eng	CAB2	Eng
14			CAB3	Eng	cFCR	Eng	CAB2	Eng	TR	Eng	CAB1	Eng
14			TR	Eng	CAB3	Eng	CAB2	Eng	cFCR	Eng	CAB3	Eng
14			CAB3	Eng	cFCR	Eng	CAB2	Eng	TR	Eng	CAB2	Eng
15		CFCR, TR, CAB 1 or 2, or CAB4	CAB4	Eng	cFCR	Eng	CAB1	Eng	CAB4	Eng	TR	Eng
15		Communicate, tolerate denial,	cFCR	Eng	CAB4	Eng	TR	Eng	CAB4	Eng	CAB2	Eng
15		relinquish positive reinforcers,	TR	Eng	CAB4	Eng	CAB2	Eng	cFCR	Eng	CAB4	Eng
15		transition and get ready to learn, and/or	CAB4	Eng	cFCR	Eng	CAB4	Eng	TR	Eng	CAB1	Eng
15		cooperate/comply/respond accurately	CAB1	Eng	cFCR	Eng	CAB4	Eng	CAB4	Eng	TR	Eng
15		to 1-3 instructions within multiple activities	cFCR	Eng	CAB4	Eng	CAB1	Eng	TR	Eng	CAB4	Eng
15			TR	Eng	CAB2	Eng	CAB4	Eng	cFCR	Eng	CAB4	Eng
15			CAB4	Eng	cFCR	Eng	CAB4	Eng	TR	Eng	CAB1	Eng
15			cFCR	Eng	CAB4	Eng	TR	Eng	CAB4	Eng	CAB2	Eng
15			TR	Eng	CAB4	Eng	CAB2	Eng	cFCR	Eng	CAB4	Eng
15			CAB4	Eng	cFCR	Eng	CAB4	Eng	TR	Eng	CAB1	Eng
15			CAB1	Eng	cFCR	Eng	CAB4	Eng	CAB4	Eng	TR	Eng
15			cFCR	Eng	CAB4	Eng	CAB1	Eng	TR	Eng	CAB4	Eng
15			TR	Eng	CAB2	Eng	CAB4	Eng	cFCR	Eng	CAB4	Eng
15			TR	Eng	CAB4	Eng	CAB2	Eng	cFCR	Eng	CAB4	Eng
15			CAB4	Eng	cFCR	Eng	CAB4	Eng	TR	Eng	CAB1	Eng

EO = establishing operation; SR = synthesized reinforcement; PR = problem behavior; Eng = Engagement; cFCR = Complex FCR; TR = Tolerance response; CAB = Contextually appropriate behavior

Wicked Important Guidelines Contextually Appropriate Behavior

1. Start by gaining instructional control over reinforcers.
2. Then gain instructional control over listen/learn
3. Then gradually increase the average delay required to terminate the delay
4. Terminate the delay for various amounts of very little behavior sometimes required (very little behavior during the delay)
5. Probably best to not signal how much behavior or what type of behavior is required to terminate the delays

In case it is not apparent:

Shorties never go away.

**This is the way
we keep hope
alive!**

CAB 6: Instructional control of 1-12+ responses/time units of cooperation w/in multiple activities **while being challenged**

Examples:

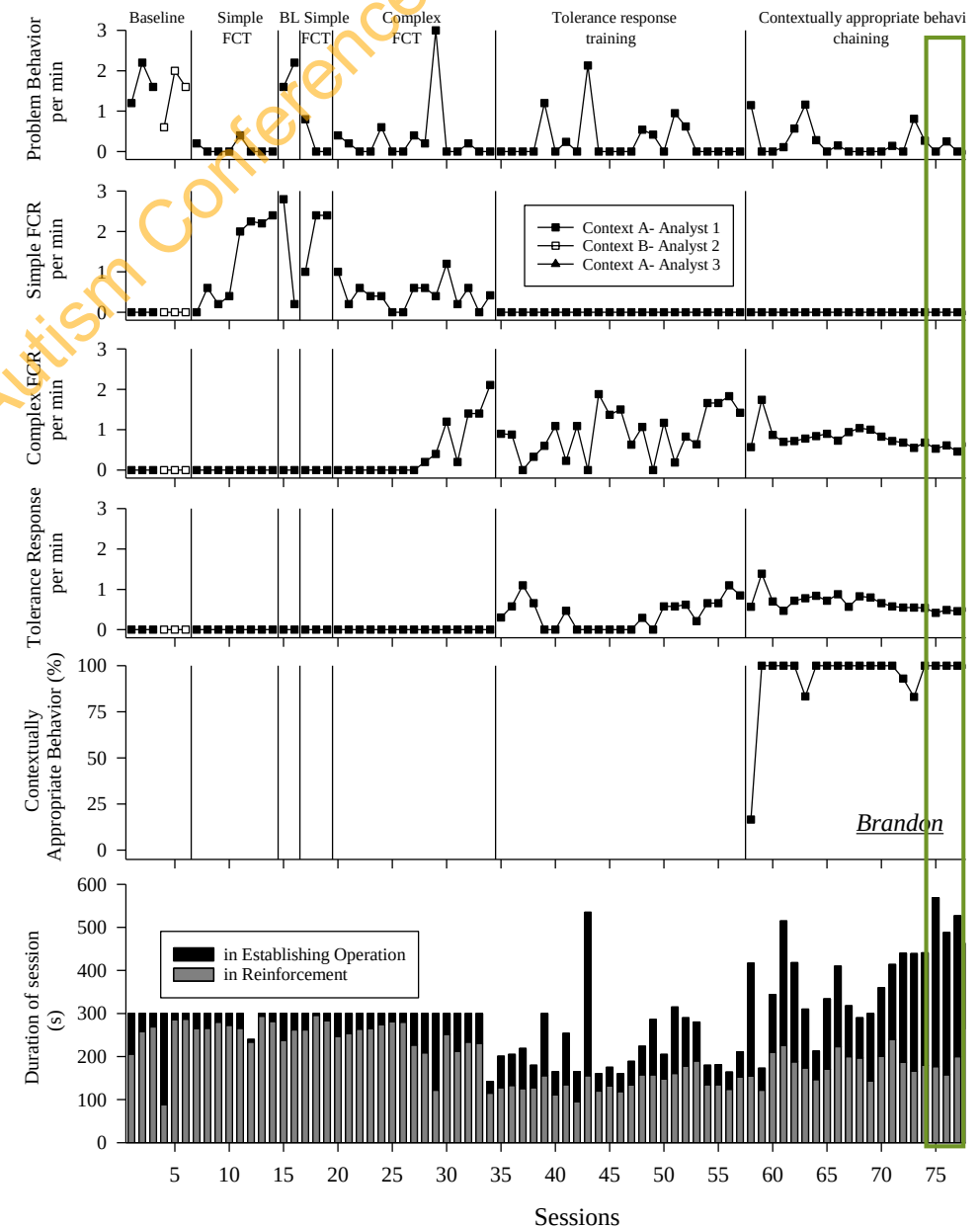
- a) Require more complex/conditional discrimination
- b) Interrupt correct performance
- c) Change activity or rules of activity
- d) Require completion in new, different way
- e) Issue vague instructions
- f) Program for missing items from task
- g) Introduce unknown tasks

**Surprise
Shorties are a
must!**

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Brandon / Treatment after CAB Chaining

- Age: 4
- Diagnosis: None
- Language Level: Speaks in Short Sentences
- Referred for: Aggression, Meltdowns, Noncompliance



Diego / Treatment session after CAB chaining

- Age: 11
- Diagnosis: Autism
- Language Level: Speaks in Short Sentences
- Referred for: Self-injurious behavior, Aggression, Property Destruction

*The skills of **functional communication**, **delay/denial toleration**, and **contextually appropriate behavior** are shaped via intermittent and unpredictable delivery of the same synthesized reinforcers during the same synthesized establishing operations.

Effects are extended to relevant people implementing in relevant contexts over relevant time periods.

Effects are socially validated.

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TREATMENT

Jeffrey

CAB
Chaining

TREATMENT

- 15 years old
- ASD diagnosis
- Fluent speech
- Severe Problem Behavior:
 - Outbursts: Screaming, dropping to the floor
 - Property destruction: throwing classroom items/moving furniture
 - Self-injury: Face slapping, head banging
 - Aggression: kicking, pushing

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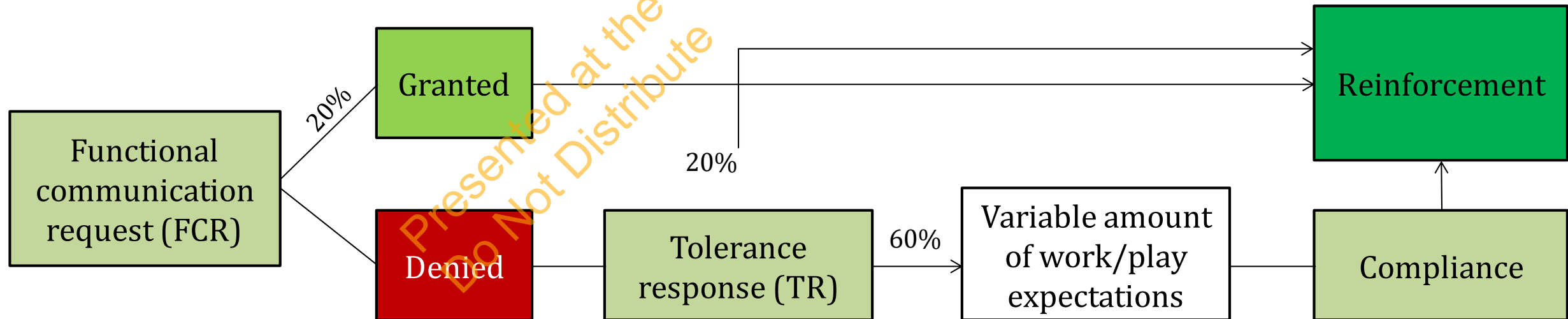
What is the treatment????

Intermittent and unpredictable
reinforcement of life skills:

Functional Communication

Delay/denial toleration

Compliance



Take Home Point:

What is required for a Meaningful Outcome?

Personalized & Synthesized Reinforcement Contingencies

and

a progressively developing,

skill-Based treatment process that

relies on unpredictable and intermittent reinforcement

to maintain effects

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Treatment Implementation

1. Put these in your pocket
2. Pull one out while child is experiencing their reinforcers
3. Keep it to yourself
4. Require that behavior next time

*Materials not needed:

Laminate
Laminating machine
Glue guns
Vis a vis markers
Velcro
Tokens
Token boards
Timers
Stickers
Candies
Anything that was not already in
the child's environment!

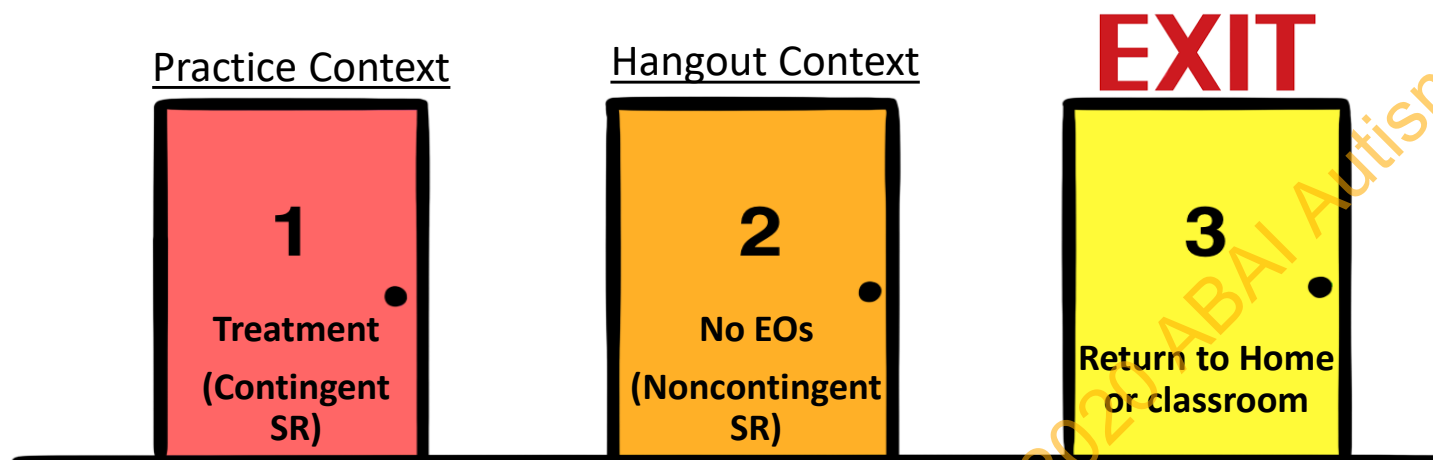
App called “Names in a Hat”

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App called “Roundom”

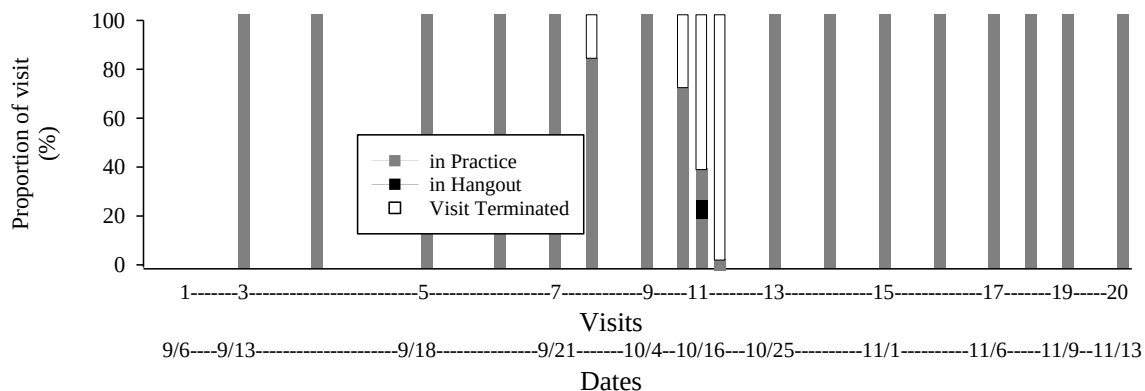
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Enhanced Choice Model for Minimizing Escalation Potential and Physical Management



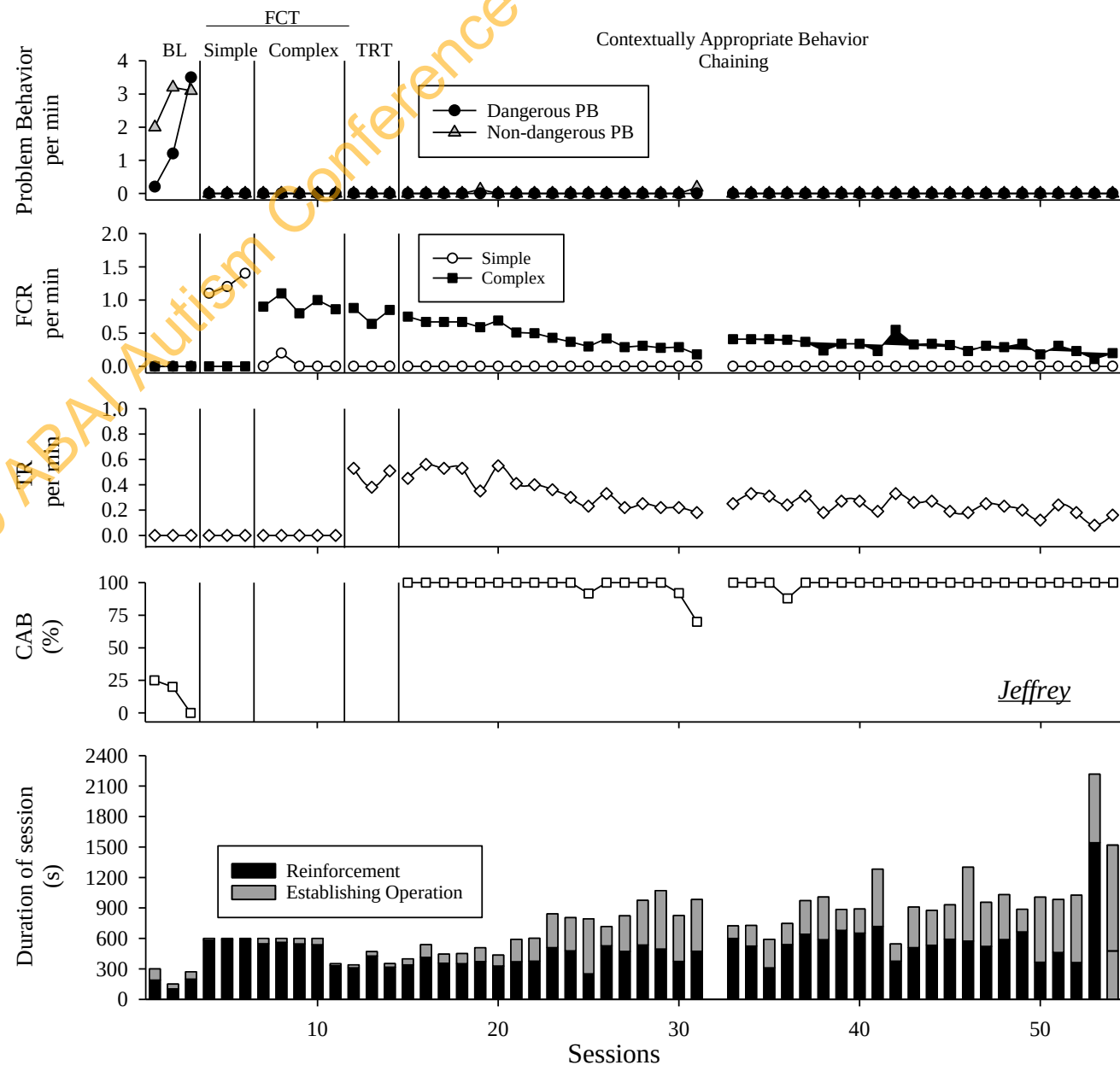
Modifications to Hanley et al. (2014)

1. Choice to **Practice**, **Hangout** or **Leave** always available
2. General transparency on objectives / reflection at end of each practice period
3. Choices offered during CAB chaining
 - Dunlap et al., 1994; Moes, 1998; Powell & Nelson, 1997
4. Extinction of problem behavior never involves physical guidance of any sort
 - Piazza, Moes, & Fisher, 1996



TREATMENT within Enhanced Choice Model - Jeffrey

LIFE SKILLS CLINIC
AT WESTERN NEW ENGLAND UNIVERSITY



Parent feedback (following transfer to home)

1. Rate the extent to which you are satisfied with the amount of improvement seen in Jacob's problem behavior in our clinic.

1 2 3 4 5 6 7
Not Satisfied Highly Satisfied

2. Rate the extent to which you are concerned about Jacob's ongoing problem behavior at home.

1 2 3 4 5 6 7
Not Concerned Highly Concerned

3. Rate the extent to which you have found the assessment and treatment provided by our team helpful to your home situation up to this point.

1 2 3 4 5 6 7
Not helpful Very Helpful

4. Rate the extent to which you feel confident applying the same strategies you have seen in our clinic, when addressing Jacob's problem behavior at home.

1 2 3 4 5 6 7
Not Confident Very Confident

Parent feedback (following transfer to home)

5. How comfortable were you **taking away Jacob's preferred activities (e.g., electronics) and asking him to do something else (e.g., clean up, do his homework)** BEFORE visiting the clinic?

1 2 3 4 5 6 7
Not comfortable Very comfortable

6. How comfortable are you **taking away Jacob's preferred activities (e.g., electronics) and asking him to do something else (e.g., come to dinner, do his homework)** now (AFTER visiting the clinic)

1 2 3 4 5 6 7
Not comfortable Very comfortable

7. How comfortable were you **taking Jacob to public places** BEFORE visiting the clinic?

1 2 3 4 5 6 7
Not comfortable Very comfortable

8. How comfortable are you **taking Jacob to public places** now (AFTER visiting the clinic)?

1 2 3 4 5 6 7
Not comfortable Very comfortable

Aside:

Why would children choose to participate in treatment?

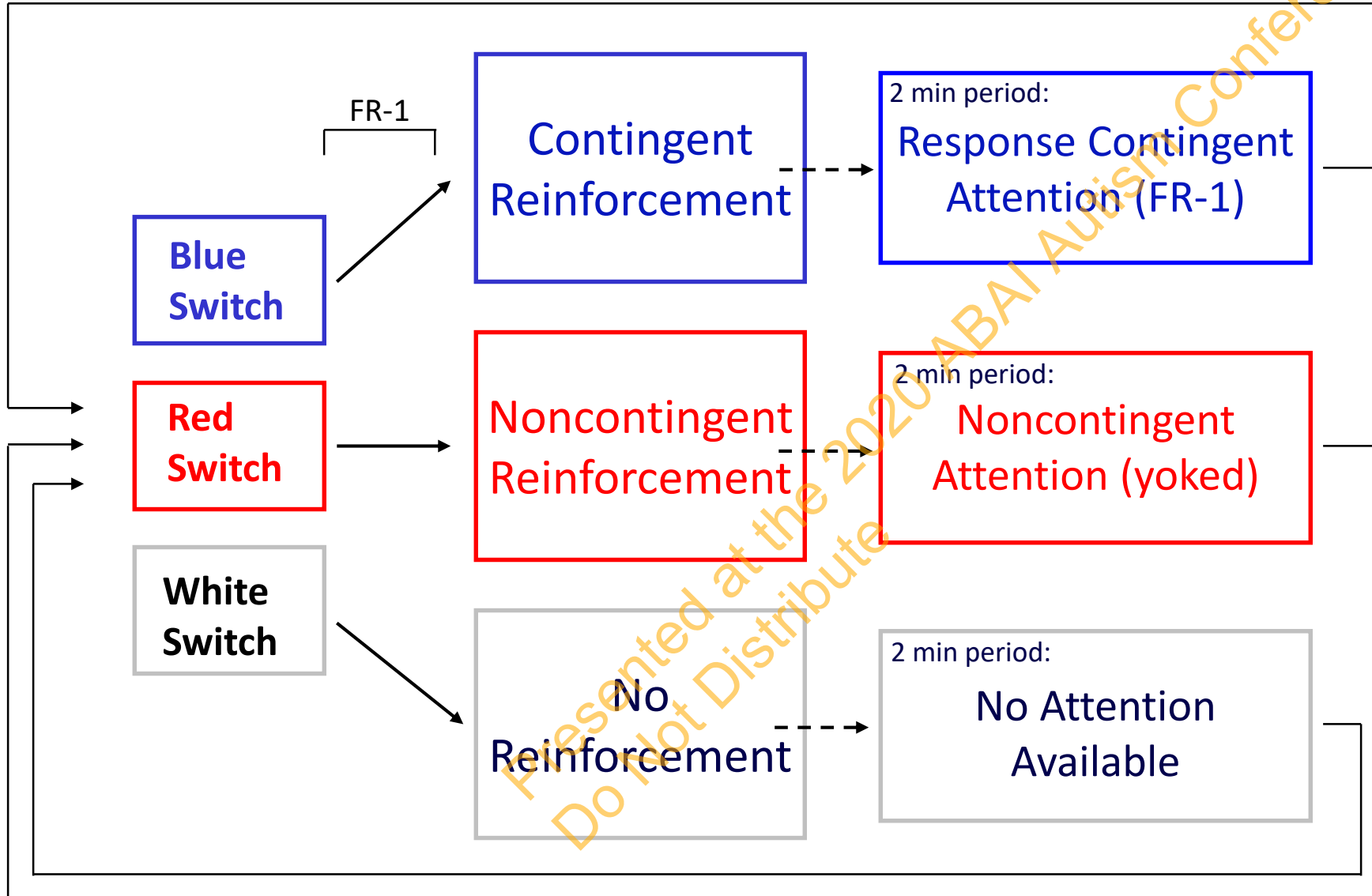
Partly due to the universal preference for contingent over noncontingent reinforcers

(i.e., due to a preference for *yearning and earning*)

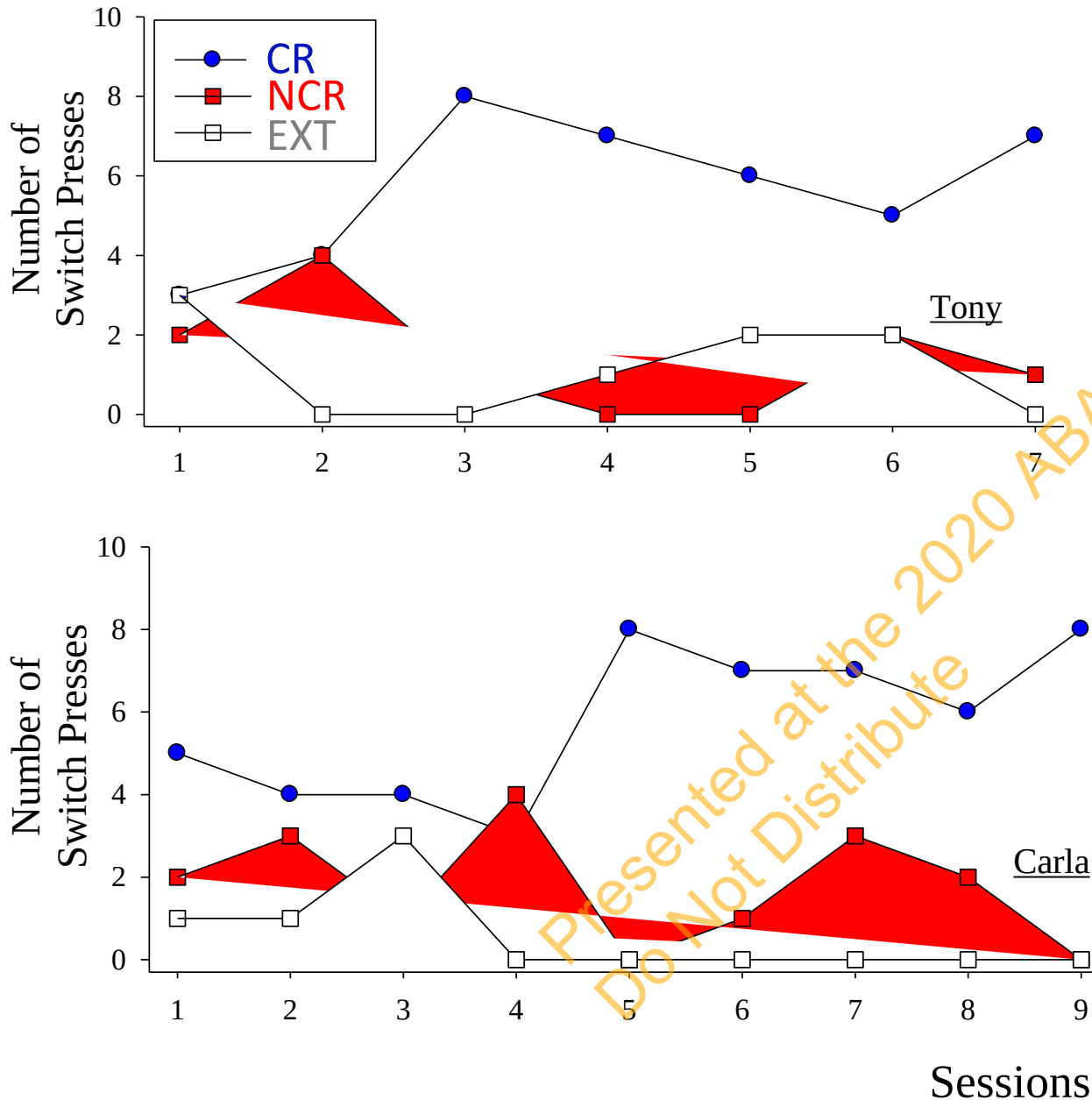
Presented at the 2020 ABAL Autism Conference
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Initial Link

Terminal Links



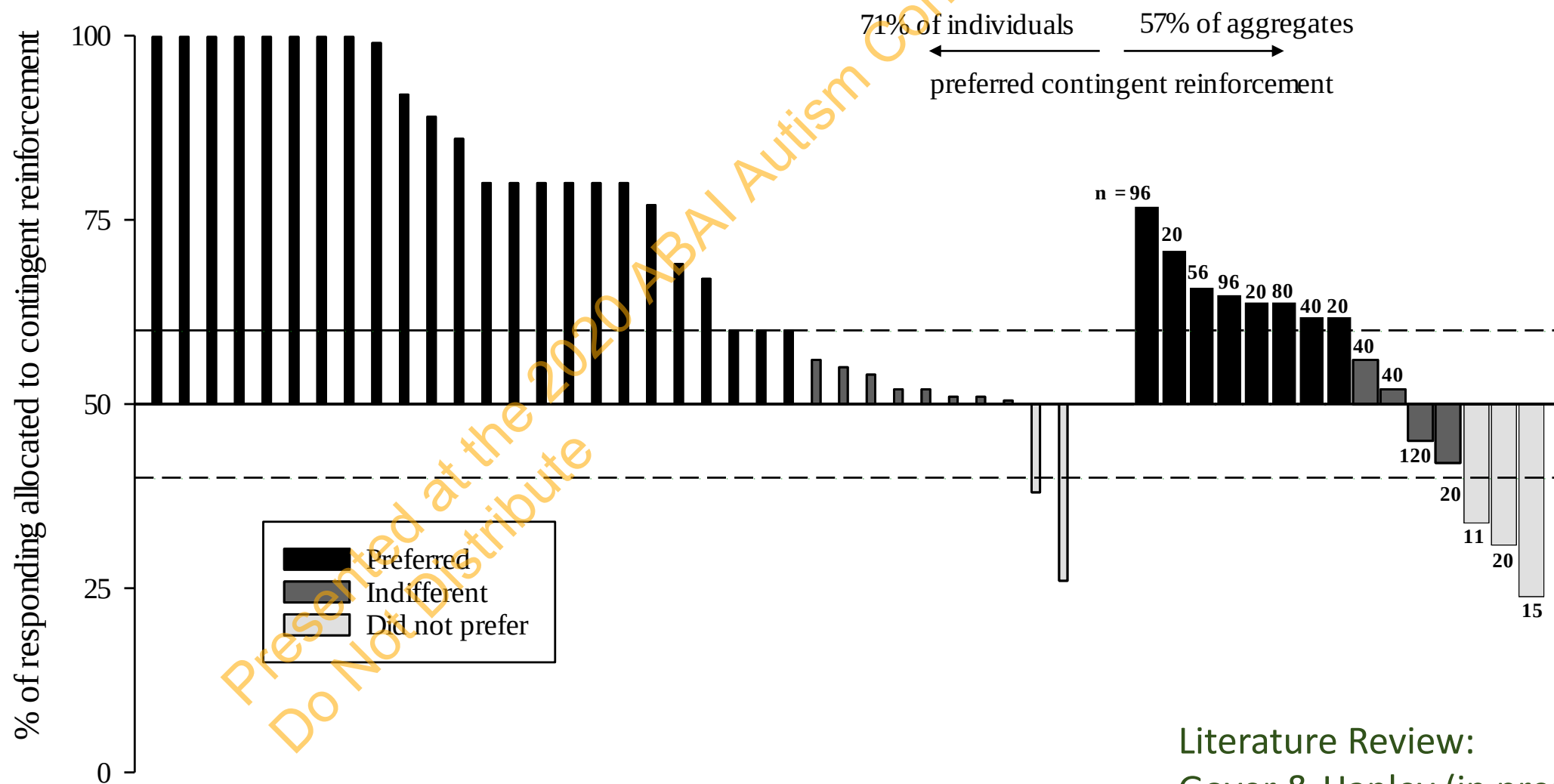
From
Hanley, Piazza, Fisher, & Contrucci,
1997, *JABA*



Preference for **contingent**
over **noncontingent**
reinforcement

From
Hanley, Piazza, Fisher, & Contrucci,
1997, *JABA*

Preference for contingent reinforcement has generality



What do you do when problem behavior occurs during the skill building process?

Option 1: Full extinction

Option 2: Prompt the expected response, continue in EO until terminal R occurs

Option 3: Prompt the expected response, and give choice to continue working or SR

Option 4: Prompt the expected response, and reinforce it

Option 5: Provide some SR immediately (partial extinction)

Option 6: Provide all SR immediately

General and durable elimination of severe problem behavior is still elusive for some who implement PFA and SBT processes

- Past functional analytic priorities/practices are difficult for many to shed
- Developing a replacement repertoire requires time, expertise, or expert supervision, and the ability to problem solve as skills are developed
- Transferring positive effects from one or a few people and one or a few contexts

to all people and all contexts

is still a formidable challenge

Transfer Rules of Thumb

At least 3/4 overlap between situation in which behavior is excellent and the next situation; with situations exemplified by:

**CAB Expectations,
People,
Places,
Time**

Two 5-trial sessions with excellent behavior, move to next situation

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FTF Implementation Support

Option 1: On-site support on day of IISCA(s)

*Option 2: **Real-time, distance-based support via Zoom on day of IISCA(s)***

Option 3: Delayed, distance-based support via Zoom following review of IISCA(s) uploaded to Dropbox

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FTF Distance-Based Consultation

1. PhD-level BCBA Consultant from FTF meets with three analysts (and/or teachers) for one hr/week (same time each week); one case per analyst
2. FTF hosts the Zoom mtgs and provides secure Dropbox folders for each client/analyst dyad
3. Better support provided when
(a) meeting note, (b) data sheet, and (c) two short edited videos are uploaded by consultee for review prior to weekly meeting
4. Twelve meetings are scheduled

Five Hidden Themes Exposed

- 1. Have professional humility**
- 2. Hold high expectations but find satisfaction in daily gains**
- 3. Trust the universal preference for “yearning and earning”**
- 4. Know that “free to do as one pleases but not alone” is SR**
- 5. Craft your whole process to be televised**

Thanks for listening.

For implementation assistance go to:

www.practicalfunctionalassessment.com

[Facebook: "BCBAs using the IISCA"](#)

www.ftfbc.com



FTF Behavioral
CONSULTING

Improving Outcomes through Research-Based Innovations