Teaching Communication Skills: Advances in Functional Communication Training

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Functional Communication Training (FCT)

An intervention approach for

      Treating problem behavior

      Teaching replacement behavior

Functional Communication Training (FCT)

Problem Behavior

A -------------B--------------C

Functional Communication Training (FCT)

A ------------B------------C

Problem
Behavior
(Aggression)

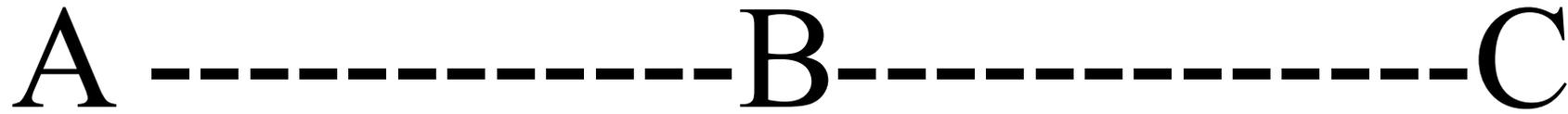# Functional Communication Training (FCT)

A ------------B------------C

                      Problem   Maintaining

                      Behavior   Reinforcer

                      (Aggression)   (Attention)

Functional Communication Training (FCT)

A --------------B--------------C

Motivating	Problem	Maintaining
Factor	Behavior	Reinforcer
(Low Attention)	(Aggression)	(Attention)

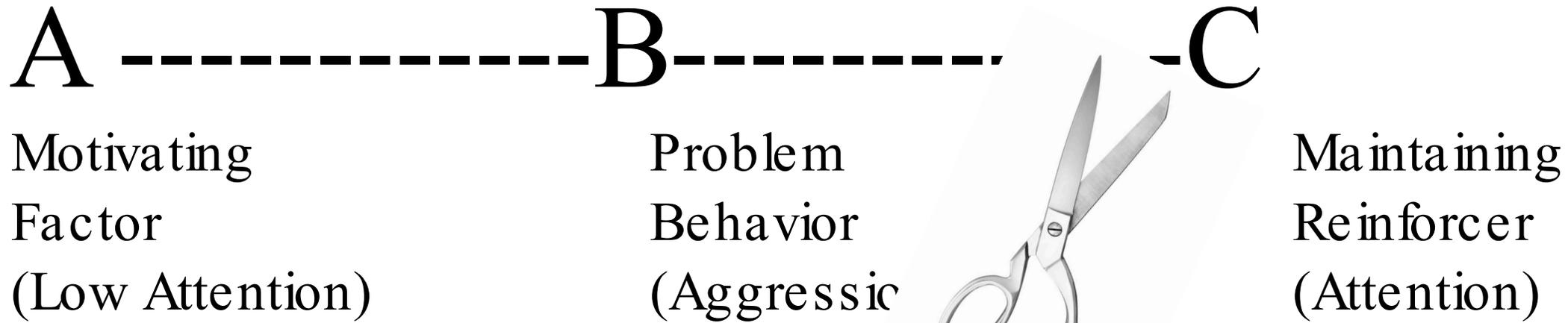# Functional Communication Training (FCT)

A --------------B---------------C

Motivating
Factor
(Low Attention)

Problem
Behavior
(Aggression)

Maintaining
Reinforcer
(Attention)

Functional Communication Training (FCT)

A -------------B   C

Motivating   Problem   Maintaining
Factor   Behavior   Reinforcer
(Low Attention)   (Aggression)   (Attention)

Functional Communication Training (FCT)

A ------------B   C

Motivating   Problem   Maintaining
Factor   Behavior   Reinforcer
(Low Attention)   (Aggression)   (Attention)

                    Functional
                    Communication

Functional Communication Training (FCT)

A -------------B   C

Motivating   Problem   Maintaining
Factor   Behavior   Reinforcer
(Low Attention)   (Aggression)   (Attention)

**Functional
Communication**

Functional Communication Training (FCT)

A

Motivating
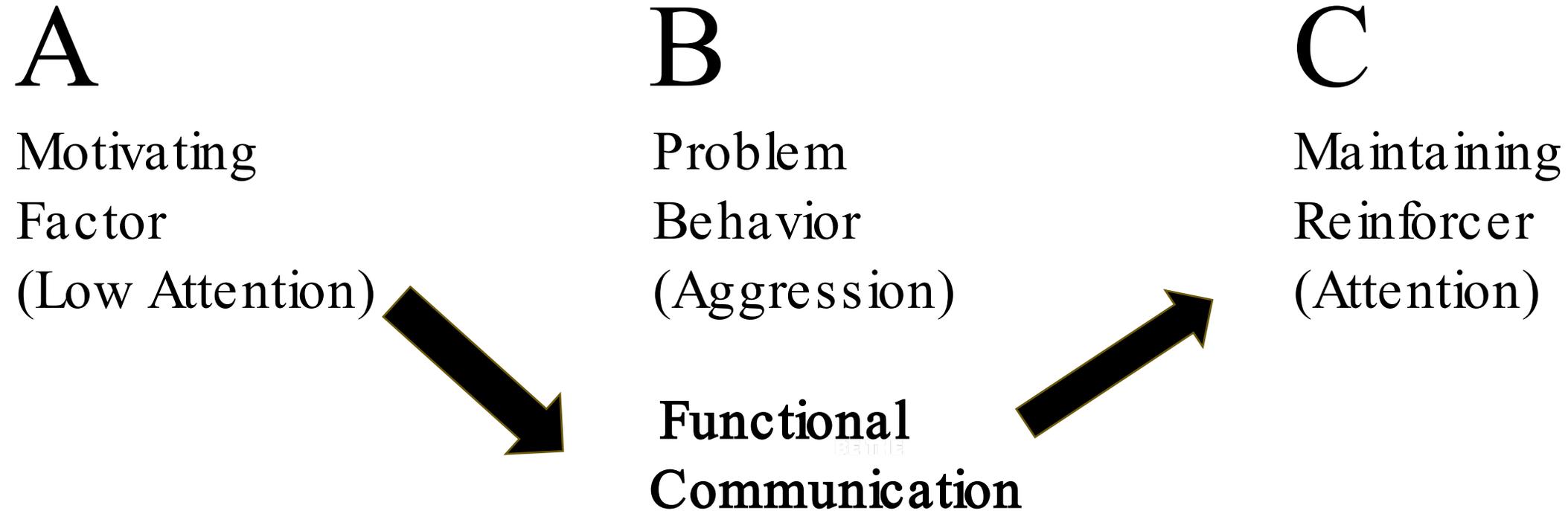Factor
(Low Attention)

B

Problem
Behavior
(Aggression)

C

Maintaining
Reinforcer
(Attention)
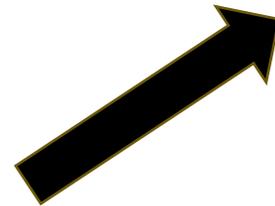
Functional
Communication

Functional Communication Training (FCT)

Disrupts reinforcement for problem behavior

Uses that same reinforcer to teach/strengthen a functionally equivalent communicative response (FCR).

1st appearance

REDUCING BEHAVIOR PROBLEMS THROUGH FUNCTIONAL COMMUNICATION TRAINING

EDWARD G. CARR AND V. MARK DURAND

STATE UNIVERSITY OF NEW YORK AT STONY BROOK, STATE UNIVERSITY OF NEW YORK AT ALBANY, AND SUFFOLK CHILD DEVELOPMENT CENTER

It is generally agreed that serious misbehavior in children should be replaced with socially appropriate behaviors, but few guidelines exist with respect to choosing replacement behaviors. We address this issue in two experiments. In Experiment 1, we developed an assessment method for identifying situations in which behavior problems, including aggression, tantrums, and self-injury, were most likely to occur. Results demonstrated that both low level of adult attention and high level of task difficulty were discriminative for misbehavior. In Experiment 2, the assessment data were used to select replacements for misbehavior. Specifically, children were taught to solicit attention or assistance or both verbally from adults. This treatment, which involved the differential reinforcement of functional communication, produced replicable suppression of behavior problems across four developmentally disabled children. The results were consistent with an hypothesis stating that some child behavior problems may be viewed as a nonverbal means of communication. According to this hypothesis, behavior problems and verbal communicative acts, though differing in form, may be equivalent in function. Therefore, strengthening the latter should weaken the former.

DESCRIPTORS: disruptive behavior, assessment, classroom behavior, communication, developmentally disabled children

Carr and Durand (1985)

Four children with IDD

- Problem behavior reinforced by:

    - Attention

    - Escape from Demands

Carr and Durand (1985)

Four children with IDD

- Problem behavior reinforced by:

    - Attention   - "Am I doing good work?" to produce praise

    - Escape from Demands

Carr and Durand (1985)

Four children with IDD

- Problem behavior reinforced by:

  - Attention   - "Am I doing good work?" to produce praise

  - Escape from Demands- "I don't understand" to produce assistance with tasks
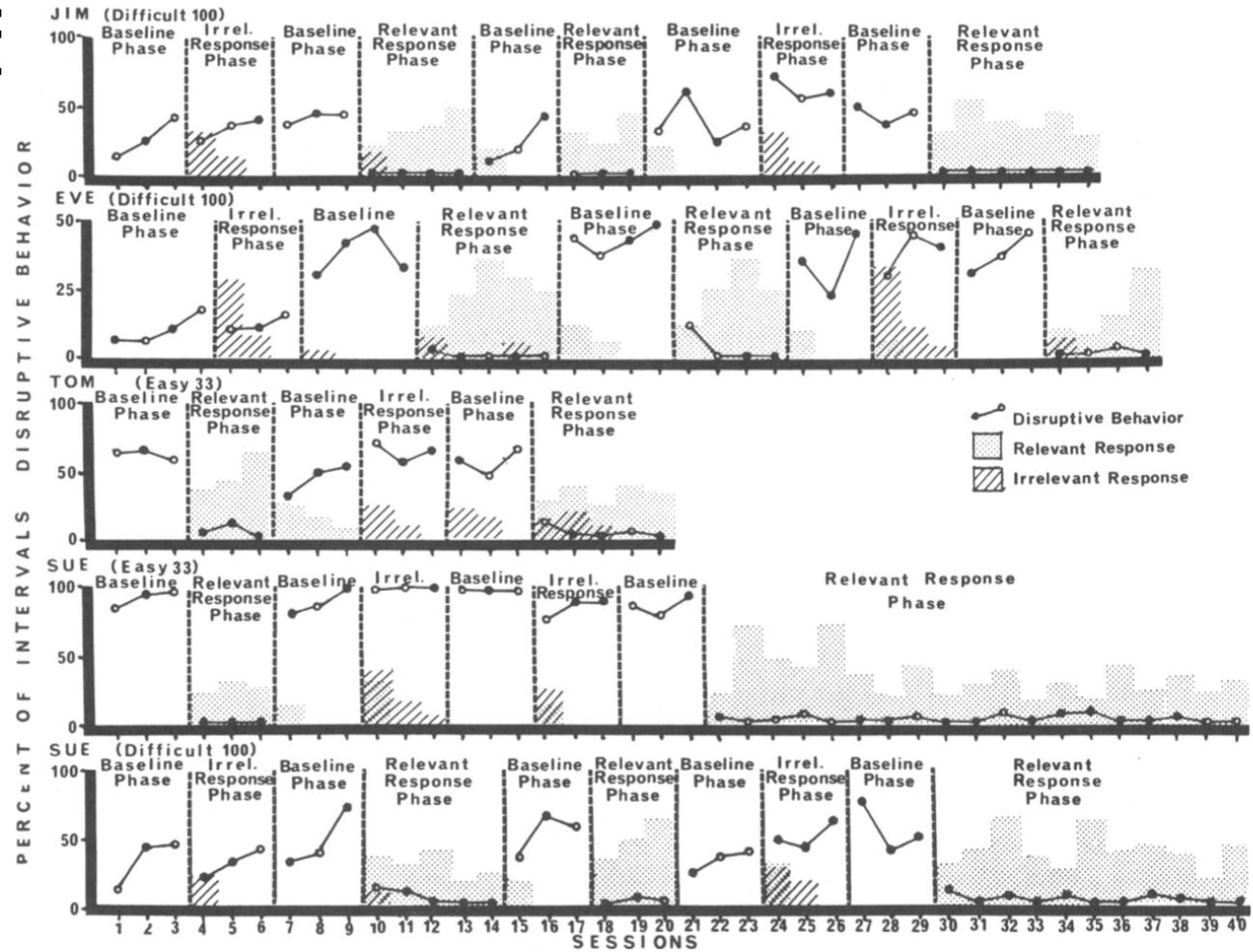
Carr and Durand (1985)

Figure 3. Percent intervals of disruptive behavior during baseline, relevant response, and irrelevant response phases. Open circles depict sessions conducted by an informed experimenter; filled circles, sessions conducted by naive experimenters. The level of relevant verbal responses is indicated by stippled bars and that of irrelevant verbal responses, by hatched bars.

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

— ABSTRACT —

Functional communication training (FCT) is one of the most common and effective interventions for severe behavior problems. Since the initial description of FCT by Carr and Durand (1985), various aspects of the FCT treatment process have been evaluated, and from this research, best practices have emerged. This manuscript provides a review of these practices as they arise during the development of effective FCT interventions. Descriptors: Behavior disorders, differential reinforcement of alternative behavior, functional communication training, function-based treatment

Tiger, Hanley, and Bruzek (2008)

91 Published FCT articles

19 different journals

*Most thoroughly researched behavioral intervention for severe problem behavior

Guidelines for Developing FCT Interventions

Focus on considerations

There's not one right approach

Flexible approach to fit your setting and client

How do you identify the reinforcers for the communicative response?

Ultimate Goal: Identify the reinforcers for problem behavior; teach FCR

How do you identify the reinforcers for the communicative response?

Indirect Assessments:

    Interviews, Questionnaires, Rating Scales

    Globally unreliable

Descriptive Assessments:

    Direct Observation, Identify common correlates

    Prone to false positives and false negatives

Functional Analysis:

    Directly manipulating the environment to see effects on behavior

    Most accurate means we have, requires expertise

How do you identify the reinforcers for the communicative response?

Recommendation:

Conduct a FA, if possible.

Inform based upon interviews and observations

How do you select a communication response?

Examples:

Spoken Language

Sign Language

Simple Gestures

Card Exchange Systems

Communication Books

Electronic Voice Output Systems

1. Consider the Social Recognition of the Response

Ultimate Goal: A "listener" should be able to respond to the request without training

- a.) Does the individual engage in vocal communication?
- b.) Are there issues with vocal articulation?
- c.) Are caregivers likely to know sign language or need to also be trained?
- d.) Do they engage in motor stereotypies?
- d.) Do they scan and make choices when presented with visual options?

2. Consider Response Effort

When a response is more effortful than problem behavior, problem behavior is more likely

One word vs. Full sentence

Picture card vs. a full-framed "I want a _____"

How many screens would one need to swipe through?

How many images would one need to scan through?

2. Consider Response Effort

How much equipment must the individual have with them to communicate?

Single Card vs. Communication booklet

Dedicated Communication Device (In all settings)

Just their hands

3. Consider Acquisition Speed

What skills do they currently posses?

Vocal imitation?

Motor imitation?

Pointing?

Guidance

Choose responses that are (a) recognizable, (b) low effort, (c) readily available, and (d) can be prompted

Start "simple" and build complexity with success.

Who should implement FCT and Where?

Ultimate Goal: Generality

FCT will ultimately be effective only if the effects are seen in the natural environment (homes, schools, vocational placements).

Occurring with parents, teachers, aides, paraprofessionals, strangers, clergy members

Who should implement FCT and Where?

Some research has shown parents and teachers implementing FCT

    In home, in school, or in supported clinic

    Requires training in advance, either in person or virtually.

Most research involves trained clinicians initiating FCT

    At home, in school, in clinic/hospital

    Then transferring intervention effects into natural environments

Considerations:

Initial stages of FCT may be challenging

Careful arranging of conditions that may evoke problem behavior.

Requires maintaining safe response, prompting of target responses, and systematic delivery of reinforcement.

Considerations:

Does the severity of target behavior warrant special precautions?

Padded surfaces or other protective equipment

Restricting fragile surfaces or materials

(Televisions, frames, windows, lamps)

Avoiding risk of harm to other students, siblings, vulnerable individuals

Considerations:

Does the implementer have the capacity to manage behavior safely?

Physical restrictions or impairments

Visual or hearing impairment

Mobility

Health issues

Size and behavioral intensity of the learner

Considerations:

If safety dictates working with a clinician or in a clinical setting

Plan for Generalization:

Multiple Exemplar Training (Therapists, therapy rooms)

Programming Like Stimuli (Make therapy room look "normal")

Direct Training as needed

Guidance

Choose trainers that are well prepared in settings that are safe.

The less "natural" the training environment, the more emphasis on generality and caregiver training will be needed

How do you teach the communicative response?

Ultimate Goal:

Response should be acquired quickly to expedite treatment effects

Considerations:

Contrived vs. natural learning opportunities:

Wait for a natural opportunity to arrive
   Wait for the iPad to run out of batteries
   Teach during toothbrushing

Create opportunities
   Intentionally disrupt the iPad
   Initiate self-care activities

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Considerations:

Prompting and Prompt Fading

Least-to-most prompting (Shirley et al., 1997)

(Create opportunity, delay, prompting)

Potential to evoke problem behavior; inadvertent chain problem behavior

Most-to-least prompting (Fisher et al., 1993)

(Pre-emptive prompting)

Potential for prompt dependence

Considerations:

Consequences for problem behavior

      Extinction for Problem Behavior*
          Withhold reinforcement

      Continued Reinforcement for Problem Behavior
          Create response competition
          Make reinforcement for communication
               Less effortful response
               More immediate/higher rate reinforcement
               Higher quality reinforcement

Considerations:

Consequences for problem behavior

Extinction preferred, but not always sufficient

Hagopian et al. (1998): FCT w/EXT = 50% of cases

Punishment may be necessary in some cases

Considerations:

Transition from Dense-to-Lean Reinforcement

Initial acquisition typically involves continuous reinforcement

Probably not practical to maintain

Considerations:

What are the practical challenges?

Waiting

Doing something else first

Being told no

Teaching waiting:

Sometimes the iPad needs to charge

Need time to acquire the requested item

Teaching waiting:

Option A: Delay Fading

Fisher et al. (2000)

Request-Delay-Reinforcement Delivery

Delay started at 1s progressed up to 30 s

Teaching waiting:

Option A: Delay Fading (Not Recommended)

Delays weaken relation between behavior/consequence

   Extinction of communication is likely

   Resurgence of problem behavior is likely

   What are they doing during the delay?

Teaching waiting:

Option B: Active Waiting

Can you give them something else to do during delays? (Will they engage?)

  Other reinforcing activities (attention, toys, games)

  Fading may or may not be necessary

    (Austin & Tiger, 2015; Sumter et al., 2020).

Teaching waiting:

Option B: Active Waiting

Consider giving tasks to complete during delays:

    Drifke, Tiger, and Lillie (2020)

        Request-task completion-reinforcement

        Progressively increased task requirements

Teaching waiting:

Option B: Active Waiting (Recommended)

Creates a response chain of task completion leading to reinforcement

Creates opportunity to teach novel skills using functional reinforcer

Specifies alternative behavior during delays

Summary

Not one size fits all:

Consider safety first

Where you start is not where you finish

(Who's teaching, where its taught, how often, how complex a response, how consistently reinforcement is delivered)

Plan for generality

Plan for practicality

Open for Questions