Differential Reinforcement Procedures in Applied Behavior Analysis

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TWO MAIN TYPES

DIFFERENTIAL REINFORCEMENT OF OTHER BEHAVIOR (DRO): Involves delivery of a reinforcer contingent on the omission of problem behavior for a pre-designated interval of time.

DIFFERENTIAL REINFORCEMENT OF ALTERNATIVE BEHAVIOR (DRA): Involves delivery of a reinforcer contingent on the commission of some specific alternative response(s), while minimizing reinforcement of problem behavior (preferably via extinction).
DIFFERENTIAL REINFORCEMENT OF ALTERNATIVE BEHAVIOR (DRA)

- DRA is essentially a concurrent schedule.
- Baseline circumstances (reinforcement schedules) usually favor problematic behavior.
- Treatment circumstances represent schedules that favor appropriate behavior.
- Ideally, Extinction vs. Reinforcement.
- However, there are circumstances when extinction is not possible or practical. In which case, minimize reinforcement for problem behavior.
APPROPRIATE USE

- Conduct a functional analysis of behavior
- Minimize reinforcement of the identified reinforcer(s) when problem behavior occurs
- Maximize reinforcement of the identified reinforcer(s) and other reinforcers when appropriate behavior occurs
- Gradually thin the schedule of reinforcement by using signals to indicate availability of reinforcers.
DIFFERENTIAL REINFORCEMENT

- Reinforcement of some specific form of appropriate behavior while minimizing reinforcement of problem behavior.

Vollmer et al. (1999)
APPLICABILITY

- Treatment of severe behavior disorders among individuals with intellectual disabilities and autism.
- Classroom behavior management.
- Parenting technique.
- As a general “lifestyle.”
PRECAUTIONS

• Rule out medical variables that could be contributing to the behavior.

• Ensure that a functional analysis is safe (e.g., perhaps contraindicated if one instance of the behavior is too dangerous).

• Be aware of resurgence when the individual is re-introduced to the baseline context.

• Consider the role of extinction.
ONE APPROACH TO COMPETENCY-BASED TRAINING (MARCUS ET AL., 2001)

- Step 1: Didactic interaction
- Step 2: Role play A—parent as kid
- Step 3: Role play B—therapist as kid
- Step 4: Immediate feedback
- Step 5: Delayed feedback
- Step 6: Monitoring and follow up
- Booster training as necessary
APPLICABILITY

- Treatment integrity failures (But, DRA is better than DRO)
- Legal, ethical, and safety requirements to block attention-maintained self-injury or aggression.
- Automatic reinforcement.
- Large and/or fast individuals may produce escape even if one attempts escape extinction as a component of differential reinforcement.
• Treatment integrity checks
• Consider other dimensions of reinforcement for attention-maintained behavior (e.g., quality, delay, duration, etc.).
• For automatically reinforced behavior, conduct frequent preference assessments.
• Consider other dimensions of reinforcement for escape-maintained behavior (e.g., quality, delay, duration, etc.).