Group Contingencies

Definition: A contingency (reinforcement or punishment) applied to the behavior of more than one person

Procedural variations based on:
- Who receives consequences
- Whose behavior affects the delivery of consequences

<table>
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<tr>
<th>Contingency</th>
<th>Consequences</th>
<th>Behavior</th>
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</thead>
<tbody>
<tr>
<td>Independent</td>
<td>Individual</td>
<td>Individual</td>
</tr>
<tr>
<td>Dependent (hero)</td>
<td>Group</td>
<td>Individual</td>
</tr>
<tr>
<td>Dependent (manager)</td>
<td>Individual</td>
<td>Group</td>
</tr>
<tr>
<td>Interdependent</td>
<td>Group</td>
<td>Group</td>
</tr>
</tbody>
</table>

- **Independent**: A contingency in which consequences are delivered to individuals members of a group based on their performance.
- **Dependent (hero)**: A contingency in which consequences are delivered to the entire group based on the performance of one member (or a subset of members)
- **Dependent (manager)**: A contingency in which consequences are delivered to one member of the group based on the performance of the entire group
- **Interdependent**: A contingency in which consequences are delivered to the entire group based on the performance of all members

Be able to give examples of each of the above

Advantages:
- Efficiency (no need to individualize contingencies)
- Takes advantage of peer-initiated contingencies without programming them

Disadvantages:
- Peer contingencies may be extremely aversive
- Public identification of poor performers
- Some individuals may not deserve consequences
Marholin & Gray (1976) “Effects of group response cost procedures on cash shortages in a small business”

General focus: To develop an intervention for employee “theft”
Problem: Theft detection
Solutions: Application of contingency to response product, Use of group contingency

Procedures
Participants: N=4 part-time cashiers
DV:
- Cash shortage/overage (comparison of register tapes and cash)
- Reliability: Comparison with bank deposit receipt

Conditions:
- BL: No treatment in effect
- Response cost: Shortages > 1% of daily total / # cashiers and deducted from all cashiers’ pay

What type of group contingency:
- Interdependent: If All cashiers refrained from making shortage, all avoided fine
- BUT that describes the contingency for avoiding the consequence, not for its delivery
- Dependent (hero): If any single cashier made a large enough shortage, all were fined

Experimental design: Reversal (ABAB)

Results
- BL: Δ+ in cash shortages
- Response cost: Δ- in cash shortages (Note occurrence of some cash overages)

What behaviors might have changed?
- Δ- in theft
- Δ- in change-making errors
- Δ+ in short changing customers
- Δ- in ringing up sales

How to determine which behavior(s) changed?

Implications and Extensions
Major contributions:
- Contingency applied to response product (no direct observation)
- Fines small and applied few times

Limitations:
- Behavior change unknown
- Application of fines possibly unfair to some employees

Extensions:
- Addition of a positive reinforcement contingency?