It Takes Two to Tango: A Unique Approach to Temper Tantrum Analysis

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INTRODUCTION

- Tantrums are normative for children between the ages of 18-60 months (Chamberlin, 1974; Jenkins, Bax, & Hart, 1980; MacFarlane, Allen, & Honzik, 1954).
- In the past, researchers have characterized the child’s vocal and motor behavior within a tantrum episode, but less is known about how parent behavior affects the unfolding of the tantrum (Potegal & Davidson, 2003; Green, Whitney, & Potegal, 2011).
- Transitional (conditional) probabilities were created to gauge the interactions that occur between parent and child within a tantrum episode.
- These transitional probabilities were used to explore the type of parent and child interactions that affect tantrum duration.

METHOD

High-fidelity audio recordings were taken from 20 videotaped tantrums of 11 toddlers (Mage = 28.45 months) and their families during home observations.

Coding Parent Speech*: Silence (N = 1258), Questions (N = 451), Commands (N = 308), or Declarative (N = 657) statements.

Coding Child Vocalizations*: silence (N = 2156), fuss (N = 327), whine (N = 993), cry (N = 356), yell (N = 212), and scream (N = 120).

*Inter-rater reliability for these codes was high (r = 0.896 – 0.975).

Transitional Probabilities: Using GSEQ, (Bakeman & Quera, 1995), parent and child vocalizations were transformed into event data and the frequency of two-behavior sequences for each dyad were computed.

probability of A/B = (frequency of BA) / (frequency of B)

(For each tantrum, 144 transitional probabilities were calculated using the proportion that one behavior followed another out of all other codes that could follow. For example, if there were 12 instances of crying and 3 were followed by questions from the parent, the transitional probability would be 3/12 or 0.25.)

Example of variability in transitional probabilities:

Temper Tantrum Duration: Tantrum onset was operationally defined as the first outburst of negative behavior (i.e., stiffening limbs/arching back, getting down, shouting, screaming, crying, pushing/pulling, stamping, hitting, kicking, throwing, or running away). The tantrum ended when the last of these behaviors stopped.

RESULTS & DISCUSSION

- Correlations were computed between tantrum Duration and each transitional probability.
- Regression analyses were used to assess the predictive value of each transitional probability on tantrum Duration, holding constant other behaviors that could have followed. There were 10 regressions conducted with Duration as the dependent variable - one for each “given” code.
- Similarly, transitional probabilities were used in a survival analysis to predict the tantrum’s endpoint.
- Only significant transitional probabilities associated with parents responses are presented in Table 1.
- Results show that when a child is fussing or yelling, parent Silence predicts longer tantrums. However, when a child is crying, parent Silence reduces intensity and duration of a tantrum episode (Table 1).
- In some instances, a child’s vocal behavior alone appears to be the primary determinant of a tantrum outcome. For instance, when a child is yelling, a parent’s verbal response is not related to tantrum duration. When a child is whining, survival analyses show that all parent verbalizations shorten the tantrum (Table 1).

CONCLUSIONS

- Finally, sequences of parent behavior can be used to predict the outcome of a tantrum. A parent Command followed by Silence predicts shorter tantrums, while a Command followed by a Declarative statement characterizes longer tantrums. Similarly, parent Silence followed by a Question relates to longer tantrums (Table 1).

TABLE 1

<table>
<thead>
<tr>
<th>Predictor</th>
<th>beta</th>
<th>SE</th>
<th>t</th>
<th>p</th>
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<tr>
<td>Silence</td>
<td>0.49</td>
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<td>13.73</td>
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<tr>
<td>Question</td>
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<td>0.04</td>
<td>11.24</td>
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<tr>
<td>Declarative</td>
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<td>0.04</td>
<td>11.13</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

REFERENCES


