Are We Baking Up the Wrong Tree?
What is a Behavioral Assessment?

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Some Background…

- Initiated in 1990’s

- Better than subjective staff opinion
  (van der Borg et al., 1991)
  - Overworked and undertrained staff left to make decisions
  - A mistake in one direction – possible bite to new adopter
  - A mistake in the other direction – dog doesn’t get a home or euthanized

- More numerous & elaborate with time
  - Multiple goals for info gathering
Multiple goals for info gathering

Adopters…

Staff…

The Public & their Lawyers…

Multiple audiences & multiple goals for results of a single tool
Why do a behavior evaluation?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Adopters</th>
<th>Staff</th>
<th>Public &amp; Lawyers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen for aggression</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Get to know the animal</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Guide in-sheltering care</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Identify behavior issues</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Guide disposition decisions</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Standardize decision making (~ less subjective &amp; controversial)</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
What is a behavior evaluation?

• Testing a series of approximations of actual situations.
  • Does it trigger aggressive behavior in truly aggressive dogs or do they successfully avoid triggering aggressive behavior in safe dogs?

• Places a dog in a situation that might trigger aggression later in life. But how do we know?
  • Toe pinch; testing tolerances; exposure to other dogs/cats
  • We are testing behavior to a stimulus in the moment

• Is NOT a Pass/Fail Test!
  • What is the dog passing or failing? The entire evaluation or one subtest?
  • Does “failing” one subtest mean the dog should not go up for adoption? Not be given a chance? Euthanized?
ASPCA Assessment on Food Guarding
(Monahan-Gibbons et al. 2012)

• **Assessment Performed**
  - Fake hand used to touch dog’s bowl while he is eating and then take food bowl away
  - Reactions ranged from freezing and a hard stare to growling or biting the fake hand
  - 96 dogs determined by SAFER to have “food-guarding” issues were adopted out. Adopters were given information on how to manage behavior
  - After 3 months, adopters were contacted and only 6 reported any aggression over food.
  - Adopters reported that they had essentially ignored the management and modification techniques recommended.
  - When touched or when food was taken away – no bites

**Result:** 6 out of 96 dogs displayed aggression in the new home
Which evaluations are in common use?

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Dogs</th>
<th>Cats</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFER (<em>Safety Assessment for Evaluation &amp; Rehoming</em>)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Assess-A-Pet</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Match-Up II</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Valsecchi et al. temperament test (unnamed)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Meet Your Match Canine-ality</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Meet Your Match Feline-ality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feline Temperament Profile</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Modified versions of these</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>“Home-grown” evaluations</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
What’s in a behavior evaluation?

Typical features:

• Test battery
• At intake or soon after
• Takes 5 to 30+ mins
• Greeting, handling, playing, feeding
• Meeting another animal
• Scary thing(s)

• Assesses:
<table>
<thead>
<tr>
<th>Sociability</th>
<th>Handling</th>
<th>Fear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression</td>
<td>Playfulness</td>
<td>Activity level</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Training</td>
<td></td>
</tr>
</tbody>
</table>
What does one look like?

https://www.youtube.com/watch?v=DOgQkmUmfss
Qualities of a Good Behavior Evaluation

✔ Sensitivity & Specificity:

Detects true positives & true negatives
Sensitivity and Specificity

- Detects true positives and true negatives

  - Do animals with known behavior problems show the behavior during the assessment?

  - Do animals without the behavior problem not show the problem?
Qualities of a Good Behavior Evaluation

- **Sensitivity & Specificity:** Detects true positives & true negatives

- **Standardization:** Reproducible – Common – None at this time
Qualities of a Good Behavior Evaluation

- **Sensitivity & Specificity:** Detects true positives & true negatives
- **Standardization:** Reproducible
- **Reliability:** Intra- & inter-observer, Test-retest
Qualities of a Good Behavior Evaluation

• Reliability

  • Inter – Intra-observer reliability
    • Will 2 people administer the test the same way?
    • Will everyone be completely objective without prejudices?

  • Test/Retest reliability
    • Time elapses
    • Change
    • Learning
    • Habituation
    • Physical changes
Qualities of a Good Behavior Evaluation

Reliability

• Stress

  • No matter how much enrichment we offer, shelter life is stressful
  • Some become more aggressive when stressed, some more fearful, quieter, inhibited
  • If a dog exhibits aggression, is it because he is stressed? (Ex. Working with food guarders)
  • Some assess behavior of dogs when stressed to she what might be the worst to protect the public. Fair?
  • Stress influences reliability but testing in a quiet area is the most fair to dog
Qualities of a Good Behavior Evaluation

✔ Sensitivity & Specificity: Detects true positives & true negatives

✔ Standardization: Reproducible

✔ Reliability: Intra- & inter-observer Test-retest

✔ Validity: Dog may not respond the same in all environments
Does this predict how the dog will respond in a new home?
# Qualities of a Good Behavior Evaluation

<table>
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<tr>
<th>Quality</th>
<th>Description</th>
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<tbody>
<tr>
<td>Sensitivity &amp; Specificity</td>
<td>Detects true positives &amp; true negatives</td>
</tr>
<tr>
<td>Standardization</td>
<td>Reproducible</td>
</tr>
<tr>
<td>Reliability</td>
<td>Intra- &amp; inter-observer, Test-retest</td>
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<tr>
<td>Validity</td>
<td>Internal: Measures represent traits of interest, External: Measures agree with other indicators</td>
</tr>
<tr>
<td>Feasibility</td>
<td>Doable</td>
</tr>
<tr>
<td>Interpretability</td>
<td>Easy for lay staff to interpret?</td>
</tr>
</tbody>
</table>
Interpretability

Observation vs. Interpretation

• OBSERVATION – Describing what you SEE (fact) along with some frequency – measurable descriptors

• INTERPRETATION – Generating or gathering information useful to arrive at a conclusion, whether scientific or based upon social sciences.

https://www.youtube.com/watch?v=Az1AbhvKSH8
What is this dog communicating?

Uncertainty, Arousal
What is this dog communicating?

Submissive Grin
What is this dog communicating?

Fear, Submission
What is this dog communicating?

Alert
What is this dog communicating?

Predatory Stare
## Interpretation - Descriptive vs. Vague

<table>
<thead>
<tr>
<th>Typical Statements</th>
<th>Good point, but…</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I haven’t seen him do that</td>
<td>…it doesn’t mean he hasn’t</td>
</tr>
<tr>
<td>2. I had no trouble handling him</td>
<td>…others may have had trouble</td>
</tr>
<tr>
<td>3. He didn’t like the neutral dog</td>
<td>…what did he do?</td>
</tr>
<tr>
<td>4. He was not very friendly</td>
<td>…under what circumstance?</td>
</tr>
<tr>
<td>5. He was dominant/submissive</td>
<td>…what does that mean?</td>
</tr>
</tbody>
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Qualities of a Good Behavior Evaluation

- **Sensitivity & Specificity:** Detects true positives & true negatives
- **Standardization:** Reproducible
- **Reliability:** Intra- & inter-observer, Test-retest
- **Validity:** Internal: Measures represent traits of interest, External: Measures agree with other indicators
- **Feasibility:** Doable
- **Interpretability:** Easy for lay staff to interpret?

*No evaluation is known to have all of these qualities at the present time*
What Gums Up the Works

Sources of gumminess

- Terminology
- Execution
- Acceptable vs. Unacceptable?

Keyword-suggestions.com
What Gums Up the Works:

Inconsistent Terminology

• Fearful Behavior: What are we calling it? Fear? Panic? Timidity? Shy? Moderate or extreme?

• Study found that when shown a video of a dog and asked to choose between “exuberant” or “friendly” to people and dogs, tons of discrepancies

• Difference between personality traits and behaviors
Behavior vs. Temperament

• **Behavior:** The action or reaction under any given circumstance
  - Friendly
  - Greeting
  - Fearful
  - Agonistic (Social Conflicting Behaviors)
    - Avoidance
    - Submissive
    - Threatening (offensive/defensive)
    - Aggression (offensive/defensive)
  - Ambivalent
  - Dominance
  - Behaviors Linked to Emotional States (reactive, displacement)
Behavior vs. Temperament

• **Temperament** – Based on genetics. Our innate and natural way of responding to the environment.

• **Character** – based on environment and experience.

• Temperament and character produce a *personality*

• These will all be different depending on the context

*We learn about temperament over time through observation and living with the animal.*
Behavior vs. Temperament
You are testing behavior NOT temperament!
What Gums Up the Works

Execution of Evaluations

• Differences across people & sites
  • Familiar or unfamiliar to dog?
  • How approached?
  • What is said?
  • Gestures? Postures? Environment? Duration of Test?
  • Difference in skill set and styles of testers? Gender?
  • Biases? Prejudices of breeds?
  • Moral and emotional issues of tester/observer?
What Gums Up the Works

Acceptable vs. Unacceptable Behaviors?

• Where do you set the bar?
  • What is cut off for general adoptions?
  • Euthanasia?
  • QoL issues?
• Legal and ethical issues?
• Laws regarding dangerous breeds and your responsibility?
• What is your philosophy?
• What do donors want?
Tips on working with dogs that do not do well in their assessment
What can you do to help improve your organization’s test for reliability?

• **Training**
  - Behavioral assessment handbook with clear definitions of behaviors and criteria for outcome decisions
  - Definitions of Behavior
  - Workshops on body language
  - Observation vs. Interpretation
  - Team work – What do you do before the test starts? (Get the dog to relieve himself – housetrained dogs that have to relief themselves may not show good social interaction if they have to pee)
  - Bias – NO! Good evaluators recognize their weaknesses and inability to be objective.
Alternatives: Food for Thought

Do we need to be fortune tellers about behavior?

Can we just describe behavior we’ve seen?

*If evals are a “snapshot” of behavior in time & place, what is their use in a shelter?*
Alternatives: Food for Thought

Can we use all experiences with an animal as sources of info instead?

- Info from relinquishing pet parent
- Daily care
- Vet exam & treatment
- Volunteer interactions
- Play sessions
- Dog walks
- Adopter meet & greets

What might we miss out on knowing?
Alternatives: Food for Thought

Adopters want info from:

Talking to staff / volunteers
Meeting the pet
Reading a kennel card (not!)

(Weiss, Miller, Mohan-Gibbons & Vela, 2012)

What info should / must shelters obtain & provide?
Chat & Chew

1) If evals are a “snapshot” of behavior in time & place, what is their use in a shelter?

2) If we gather “other” info instead, what might we miss out on knowing?

3) What info should / must shelters obtain & provide?

4) On what behavioral info should we base euthanasia decisions?
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