It’s a (shelter) dog’s life: Just how important is human contact?

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A model of human-animal interactions in the livestock industries

Stockperson

Attitudes ➔ Behaviour

Animal

Fear ➔ Productivity & Welfare

Stress

Animal behaviour

Hemsworth and Coleman (1998)
Background

- Observational study of 29 handlers and 617 dogs across 4 animal shelters (Haynes, Coleman & Hemsworth 2012)

- **Dog fear behaviours**
  - Data suggest that handlers spend more time in the pen with dogs that display more fear behaviours including more initial avoidance.

  - However, there was no correlation between handler positive behaviour and these behavioural indicators of fear of humans.

- **Dog interactions with handler**
  - Increased dog interactions with handler (sniff, lick, paw, jump up) associated with increased handler positive behaviour.
Aim:
- To determine the effects of handler contact time (5 or 30 s) and nature of the contact (positive or neutral) on the behavioural and physiological responses of shelter dogs
Materials & methods

- US County shelter

- 64 dogs handled by the researcher (SH) only during their first 4 days in the shelter

- Each dog allocated to one of 5 treatments on Day ‘0’:
  1. No human contact
  2. 5 s neutral contact
  3. 5 s positive contact
  4. 30 s neutral contact
  5. 30 s positive contact

- Researcher cleaned each pen once daily (Days 1 – 4) in a standard manner, imposed the treatments and left the pen: 0900 – 1200 h
Materials & methods

Observations on dog’s behaviour at feeding

- Days 1 – 4 in shelter: 0630 – 0645 h

- Researcher approached the pen and delivered food into the externally accessible bowl in a standard manner

- Dog behaviours recorded within 5 s of food delivery:
  - Fearful behaviours - crouch, head oriented away, tail low or tucked, tail still
  - Other behaviours – sniff or jump up at pen door, feed
  - Location in pen – front or back half of pen
Materials & methods

Observations on dog’s behaviour to familiar human

- Day 4 in the shelter: 0830 – 0900 h

- Researcher approached the pen and crouched in a standard manner

- Dog behaviours recorded:
  - **Time spent** within 1 m of human
  - **Latency to approach** within 1 m of human
  - **Latency to interact** with human (sniff, lick, paw or jump up)
  - **Interactions with human** - sniff, lick, paw, jump up
  - **Fearful behaviours** - crouch, head oriented away, tail low or tucked, tail still
Results

Treatment effects on dog behaviour at feeding

\[ F(4,51) = 3.15, \ P = 0.022 \]
Results

Treatment effects on dog behaviour to a familiar human

\[ F_{(4,55)} = 3.32, \text{ } P = 0.017 \]
Results

- Partial correlations (controlling for time in shelter) between dog fear and approach behaviours during familiar human test. (Degrees of freedom in parentheses.)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Behavioural response to familiar human at 0 m</th>
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<tbody>
<tr>
<td></td>
<td>Latency to interact with human</td>
<td>Total interactions with human</td>
<td>Time spent within 1 m of human</td>
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<tr>
<td>Fear behaviours</td>
<td>0.52*** (47)</td>
<td>-0.60*** (47)</td>
<td>-0.31* (47)</td>
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<tr>
<td>(1 m)</td>
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<tr>
<td>Fear behaviours</td>
<td>0.39** (47)</td>
<td>-0.53*** (47)</td>
<td>-0.40** (47)</td>
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<td>(0 m)</td>
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* significant correlations at P <0.05; ** P < 0.01; *** P < 0.001
Results

- Dogs that received 30 s additional positive contact displayed significantly fewer fear behaviours at feeding when compared with dogs that received no contact.

- Dogs that received 30 s additional positive contact displayed significantly fewer fear behaviours in response to a familiar human when compared with dogs that received no contact.

- Data suggest both duration and the nature of human contact during routine cleaning may reduce subsequent dog fearful behaviours.
In summary

- Based on dog behaviour at feeding and in response to a familiar human, both duration and nature of the human contact during routine cleaning may reduce fearful behaviours in shelter dogs.

- The provision of brief positive human contact during routine cleaning may assist adaptation.

- Implications for shelter dog behaviour and welfare:
  - Behavioural testing
  - Re-homing
  - Ease of handling
Acknowledgements