Puppies from “puppy farms” show more
temperament and behavioural problems
than if acquired from other sources

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Introduction

Puppies from commercial breeding establishments (UK “puppy farms”) have
increased morbidity and mortality [1], but there has been little research into
their temperament as an adult when acquired from less responsible breeders.
Our aim was to compare adult dogs’ temperament and behaviour based on
where they were sourced.

Our initial analysis [2] using amalgamated breed data showed differences in
all but two behavioural categories studied, favouring more responsible
breeders.

The study below explores this by breed: Pug, Jack Russell and Chihuahua.

Methods

We used the validated Canine Behavioural Assessment And Research
Questionnaire CBARQ™ [3] developed for owners and behaviourists to report
typical responses of their dogs to common stimuli.

It comprises 100 behaviour questions, with answers on 5 point ordinal scales
either relating to intensity (e.g. aggression 0-none; 4-serious) or frequency
(e.g. separation related behaviours 0=never; 4=always).

Scores are calculated for each behavioural category (see Table 1) using
CBARQ protocol. A high score is less favourable except for trainability.

An additional 11 questions (for example: where was the puppy acquired; was
the mother seen interacting with her puppies; number of litters available, were
health documents seen; puppy age at purchase) informed the groupings for
“more responsible” and “less responsible” breeder (>3 concerns = less
responsible, unless there was an overriding statement in the free text).

The survey was distributed via internet breed forums and dog charity tweets,
targeting the three popular breeds above.

Statistical analysis used: Analysis was by Mann-Whitney U-tests in SPSS 21,
with Holm’s sequential Bonferroni adjustment for multiple comparisons.

Results

Table 1 shows the statistically significant differences found which indicate
more favourable behavioural traits in the dogs acquired from more
responsible breeders.

Table 1. Significantly different behavioural categories by breed based on
source of puppy. Behavioural categories in green remained significant at
the p<0.05 level* after Holm’s sequential Bonferroni adjustment

<table>
<thead>
<tr>
<th>Puppies from</th>
<th>Responsible Breeders (RB)</th>
<th>Less responsible Breeders (LBR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chihuahua: (RB n=50; LRB n=35)</td>
<td>Medians (lower and upper confidence interval)</td>
<td></td>
</tr>
<tr>
<td>Aggression to familiar dog</td>
<td>0.3 (0-0.0.8)</td>
<td>0.8 (0-0-2.9)</td>
</tr>
<tr>
<td>Aggression to unfamiliar dog</td>
<td>1.3 (0-0.1-3)</td>
<td>1.5 (1-3-2.3)</td>
</tr>
<tr>
<td>Aggression to strangers</td>
<td>0.6 (0-0.2-3)</td>
<td>1.1 (0-5-1.7)</td>
</tr>
<tr>
<td>Aggression to owner</td>
<td>0.0 (0-0-0.1)</td>
<td>0.3 (0-0-0.9)*</td>
</tr>
<tr>
<td>Stranger directed fear</td>
<td>1.3 (0-0.1-8)</td>
<td>1.5 (0-8-2.00)*</td>
</tr>
<tr>
<td>Touch sensitivity</td>
<td>0.8 (0-5-1-0)</td>
<td>1.8 (1-0-2.5)*</td>
</tr>
<tr>
<td>Separation anxiety</td>
<td>0.6 (0-0.1-9)</td>
<td>0.9 (0-9-1.3)*</td>
</tr>
<tr>
<td>Chasing</td>
<td>1.1 (0-3-1.7)</td>
<td>2.1 (1-6-2.7)*</td>
</tr>
<tr>
<td>Pug: (RB n=85; LRB n=40)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of dogs</td>
<td>0.5 (0-0.3-8)</td>
<td>1.0 (0-5-1.8)</td>
</tr>
<tr>
<td>Fear of strangers</td>
<td>0.0 (0-0-0.0)</td>
<td>0.0 (0-0-0.9)</td>
</tr>
<tr>
<td>Other fear</td>
<td>0.5 (0-3-3-7)</td>
<td>0.9 (0-5-1.3)</td>
</tr>
<tr>
<td>Separation anxiety</td>
<td>0.5 (0-3-3-5)</td>
<td>1.4 (0-3-1.9)*</td>
</tr>
<tr>
<td>Familiar dog aggression</td>
<td>0.3 (0-0-0.8)</td>
<td>0.8 (0-0-2.9)</td>
</tr>
<tr>
<td>Excitability</td>
<td>2.0 (1-0-2.2)</td>
<td>2.3 (1-6-2.8)*</td>
</tr>
<tr>
<td>Energy</td>
<td>2.0 (0-2-2.0)</td>
<td>2.8 (0-3-0.9)*</td>
</tr>
<tr>
<td>Jack Russell (RB n=150; LRB n=75)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainability</td>
<td>2.5 (0-4-2.6)</td>
<td>2.1 (1-6-2.3)*</td>
</tr>
</tbody>
</table>

Conclusion

Puppies from less responsible breeders had less favourable
behavioural traits as adults, which may affect their success as a
companion animal. This presents another reason not to acquire
puppies from breeders who do not adhere to the ethos of e.g.
RSPCA, BVA and AWF’s puppy contract.

References and Acknowledgements

   • The authors would like to thank the UFAW link scheme for supporting attendance at this conference
   • Photo: courtesy of David Charlton Photography