Investigating the role of coat colour, age, sex, and breed on outcomes for dogs at two animal shelters in the United States

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Abstract

The popular press frequently reports that coat colour bias negatively impacts shelter adoption rates for black domestic dogs. This phenomenon, commonly called ‘black dog syndrome’ (BDS), reportedly increases the likelihood of euthanasia for black dogs and negatively affects the length of black dogs’ time to adoption. While organisations may focus on BDS and ways to promote black dogs, it is possible that the influences of other important factors, such as sex, age and breed, may be overlooked. To evaluate the veracity of BDS and examine the impact of various phenotypic traits on shelter outcomes, we analysed four years of intake and outcome data from two animal shelters in the Pacific Northwestern United States. Results indicated that the average length of availability for adoption (LOA) for black dogs was not significantly longer than that for other coloured dogs, nor was the rate of euthanasia of black dogs significantly higher than average. On the other hand, age and breed group were consistent predictors of shelter outcomes across the two shelters. Older dogs tended to have longer LOA and to be euthanised at rates higher than expected. Bully breeds had significantly longer LOA in both shelters and, compared to other breeds, were euthanised at higher than expected rates. The methods implemented in this study could be utilised by other shelters to inform intake and marketing strategies.

Keywords: animal shelter, animal welfare, black dog syndrome, domestic dog, euthanasia, length of availability

Introduction

Many anecdotal reports suggest that black domestic dogs (*Canis familiaris*) face low adoption rates due to their coat colour. The existence of this phenomenon, frequently referred to as ‘black dog syndrome’ (BDS), has been bolstered in popular media. The supposed impact of BDS is that black dogs stay longer in shelters before being adopted and are more likely to be euthanised (Leonard 2011; Allman 2012). News reports regularly quote animal shelter personnel and spokespeople from various humane organisations who state that it is harder to place black dogs compared to other coloured dogs. The predominant theories cited by reporters regarding what contributes to BDS consist of adopters discriminating against black dogs due to negative preconceptions about these dogs’ expected temperaments, adopters finding black dogs less interesting due to the ordinarness of a black coat, and the difficulty of skillfully photographing black animals to promote them to potential adopters (see, for example, the following news reports: Friedman 2009; Keith 2009; Sørensen 2012; Edwards 2013; LaRue 2014; Waldman 2014). While some of these factors may affect adoption decisions, black dogs may also have poorer shelter outcomes if more black dogs enter the shelter system than dogs of any other colour.

Some reports appear to support the concept of BDS. In a 2009 survey of animal rescues and shelters conducted by Petfinder, 54.2% of respondents said large, black dogs were more difficult to place than other dogs (Keith 2009). Despite frequent media attention and regular discussion within the animal shelter industry about BDS, findings from scientific studies that have examined how dogs’ phenotypic characteristics affect adoptions and human preferences have been mixed. A study of the adoption records of more than 4,000 dogs at a Sacramento, California county shelter reported that black and brindle dogs had the least likelihood of being adopted, and dogs of these colours that were not adopted were, indeed, being euthanised (Lepper et al 2002).

Conversely, DeLeeuw (2010) concluded that having a black coat was only weakly associated with lower adoption rates, and a study of factors influencing dog adoptions reported that length of stay (LOS) was not significantly associated with colour, age, or sex (Protopopova et al 2012). Furthermore, Diesel et al (2007) reported that although black dogs had significantly lower rates of adoption than did dogs with grey or merle, yellow or golden, or liver and white coats, their outcomes were no worse than dogs with brown/brindle, tri/mixed, or black and white coats. Brown et al (2013) examined the effect of physical characteristics...