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Folk Beliefs and Fast Thinking: An Empirical Test of the Coffin Trap in Greyhound Racing

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Abstract

Many intuitions evolve into folk beliefs that are shared and persist within a community. These offer dubious cues to influence decision-making. We examine a natural setting where folk belief can be empirically testable: the sport of greyhound racing. This community maintain that greyhounds drawn in Trap 4 – the 'Coffin Trap' – are disadvantaged and ought to be avoided by bettors. Using data from 78,595 greyhound performances in Great Britain, we empirically test the accuracy of this enduring intuition. Controlling for pre- and within-race conditions, our results support the community intuition. The 'Coffin Trap' significantly disadvantages greyhound and this is not reflected in market odds. This finding are robust across races and empirical estimators. As there is no scientific basis for the origin of this belief, these results substantiate the success of a culturally surviving intuition. We conjecture that a valid cue has emerged from learning over time within the community.

Keywords: Decision-making; judgement; trap; greyhound; belief.

JEL Codes: D91; L83; Z20.

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1. INTRODUCTION

Many communities rely on folk beliefs to guide decision-making. These beliefs often emerge organically and are based on historical intuitions or culturally inherited views (Beck & Forstmeier, 2007; Boyer & Peterson, 2018).[1] The scientific community is often wary of these claims as many have no discernible logic or empirical basis. Nonetheless, these beliefs are widespread (Risen, 2016) and provide cues to allow simple decision rules to develop. Folk wisdom is widespread in the world of professional sport with traditions relating to, for example, the hot hand, clutch genes, team curses and pre-match rituals.

We contribute to the literature on intuitive decision making by testing the veracity of a long-standing community belief using a rich observational dataset from sport. Our setting is greyhound racing – a competitive environment that can shadow laboratory conditions. The setting is advantageous given the presence of meaningful financial stakes, ample opportunity for learning for bettors and the highly controlled environment where race outcomes are based on the behaviour of animals who are non-strategic agents. Using over nearly 80,000 racing results, we test the accuracy of the community held belief that the greyhound positioned in Trap 4 – 'Coffin Trap' – at the beginning of a race has a lower probability of winning (Matthews, 2006; Martin, 2007). While the accuracy of intuitive decisions has been extensively studied in behavioural economics, empirically evaluating durable yet unverified beliefs in naturalistic, non-experimental settings where meaningful rewards are on offer remains methodologically challenging.

As we outline on in our primer, intuition concerning the 'coffin trap' is based on a view that the greyhound positioned in Trap 4 at the beginning of the race faces disadvantages – this

[1] These range from empirically unchecked intuitions – such as advice on nutrition or medical practices (Schaffir, 2002) – to broader constructs tending toward superstition such as the perceived significance of dates (Antipov & Pokryshevskaya, 2020), lottery strategies (Pravichai & Ariyabuddhiphongs, 2015) or the power of facial expressions (Gershman, 2015) and team colours (Butler and Butler, 2021). Recently, *superstition heuristics* have been shown to offer cognitive shortcuts for important strategic decisions (Liu et al., 2025).

is owning to being sandwiched between competitors. The claim meets the criteria of a folk belief as it is collectively shared in the small community culture of greyhound racing, rather than holding an empirical or scientific basis. This community has shrunk in size over the years as attendance on-course has declined and track closures continue. Of the seventeen greyhound tracks that operated in London fifty years ago, just one now survives (Racing Post, 2025). The belief also has a prescriptive component, offering a culturally persistent cue for bettors in the community to avoid gambling on the greyhound positioned in Trap 4. A distinction between bettors is important. Those in the community that attend meetings on-course are heavily outnumbered by bettors who wager on greyhounds off-course. Many off-course bettors, watching live broadcasts of greyhound racing online, are likely unaware of the folk belief of Trap 4 held within the community.

Previewing our results, we find empirical support for the 'Coffin Trap' intuition. Random placement in trap 4 significantly disadvantages greyhounds' performance relative to the competition in other starting traps. This performance penalty persists even after controlling for market expectations, as reflected in betting odds. This finding is also robust to considering elite races only, where we suspect more sophisticated betting patterns and higher levels of market activity. These findings are noteworthy as they offer relatively rare field evidence supporting the predictive accuracy of a community-held folk belief. More broadly, our results speak to a well-established literature on the costs and benefits of simple decision rules in information-rich environments (Tversky & Kahneman, 1974; Haselton & Nettle, 2006). In this case, the intuitive reasoning is valid.

The remainder of this paper is structured as follows. The next section provides a brief background on intuition and biases close to our setting. We then present a primer on greyhound racing in Great Britain, including rules, trap assignment procedures, and community beliefs.

Section 4 describes the data and empirical methods, followed by results and robustness checks in Section 5. The final sections discuss implications and conclude.

2. THE SPORT OF GREYHOUND RACING

Greyhound racing is an organized, competitive sport administered by the Greyhound Board of Great Britain (GBGB). Racing occurs daily at the 20 GBGB-licensed stadia located throughout Great Britain, with multiple venues often operational simultaneously (Greyhound Board of Great Britain, 2024a). A maximum of six greyhounds' races anticlockwise around an oval track and the public wager bets on the outcome of the race[2]. Each greyhound track in Great Britain is essentially identical in shape, having two straight sections and two semi-circular banked bends (like athletics).

The greyhounds are positioned into one of six traps (metal boxes) before the start. These are opened simultaneously at the commencement of the race upon which the greyhounds compete by chasing a mechanical hare, positioned on an electric line, which follows the full outside circumference of the track. The greyhound that completes the course in the fastest time in each race is deemed the winner.

Unlike many competitive sports, greyhound racing is especially homogeneous – making it a particularly well controlled setting even within a sports context. Most races are run over 525 yards, on sand, with the direction of the race always left-handed. The number of entrants is almost always six and never exceeds this number. The issue of shirking – or the myriad of human motivations that can explain performance in other sports - is not present; greyhounds exert maximum effort within-race. The motivation to chase is a function of instinct.

[2] The sport evolved from coursing, where greyhounds chased live game animals, usually a hare, across the open countryside (open-field coursing) or an enclosed area (closed-field coursing) (Stafford, 2007).

This is not true of many other racing sports where performance can be adjusted within-race by those competing.

2.1 Trap Allocation

The GBGB oversees the allocation of greyhounds to traps. Prior to the start of each race, greyhounds must be allocated into one of the six available traps. The allocation process is designed to ensure fair competition. The process of trap allocation is covered by Rule 76 and Rule 80. Rule 76 states that trap numbers are allocated by the Racing Manager - an independent authority of the GBGB – "in a manner conducive to good racing" or by a random draw process which can be either manual or computer-generated (Greyhound Board of Great Britain, 2024b). The primary objective of the draw is to randomize the trap assignments, across races, to remove bias[3]. Rule 80 covers the procedures of the draw when this occurs. Historically, greyhounds were classified into two distinct categories: wide runners (preference to run on the outside of the track and could be allocated Trap 5 or Trap 6) and railers (preference to run close to the rail and might be given Trap 1 or Trap 2). In recent years, a third classification has been introduced for greyhounds that prefer a middle draw (Trap 3 and Trap 4). These definitions are captured under Rule 78 of the racing rules.

While these starting preferences can be considered, the process still aims to maintain fairness, with the trap draw allocated according to GBGB Rules. Where greyhounds have been allocated running preferences, the draw is restricted to their preferred trap group (e.g. railer, middle or wider). If the number of greyhounds running preferences exceeds the number of suitable traps, a random draw is used to allocate greyhounds to traps. For example, if all six greyhounds were considered to have a preference to run wide, Trap 5 and Trap 6 would be

[3] In certain circumstances, the preferences or running styles of greyhounds may be taken into consideration. This is done to ensure the safety of the greyhounds and tries to minimize the risk of injury to the greyhound as they compete

allocated first. The remaining four animals would then be placed randomly in traps 1 to 4, despite preferring a wider draw.

2.2 The Race Process

Once traps are assigned, greyhounds are positioned in their slot for an even start.[4] Each trap is labelled with Trap 1 on the inside of the track and Trap 6 on the outside of the. The traps open simultaneously to commence the race. As the greyhounds complete four bends during the race, the first bend (Bend One) often plays a decisive role in the race outcome due to clustering at this point shortly after the start - interference and memorable collisions are most likely here. Greyhounds also display a high degree of acceleration in the first five seconds of the race before bend transitions and that bend One was crucial in dictating race outcome and potential injuries (Hossain, Eager, & Walker 2020) and will take a pathway that results in the least energy wasted on a two-turn track. This smooth non-linear path, easing on the bends, will result in wider drawn greyhounds encroaching on middle and rail runners, making these collisions likely.

3. THEORETICAL BACKGROUND

Folk beliefs and superstitions are often the product of slow and stable associative learning processes (Beck & Forstmeier, 2007), the mechanism we hypothesise to underlie the belief examined in our setting. Broadly speaking, two outcomes are possible. First, associative learning may give rise to illusory patterns (Whitson & Galinsky, 2008), where one can perceive or form causal inferences where none exist. Individuals can develop simple but fallacious decision rules from what could be coincidence. On the other hand, associative knowledge can be informative and effective if it is acquired from prior experiences and applied in those settings (Banks & Gamblin, 2022). Intuition concerning chance and frequency can be fine-tuned

[4] Greyhounds wear race jackets which correlate with their designated trap placements.

(Gigerenzer, 2018). Of course, there has been a broad debate historically across two sides as to the ecological validity of intuitive decisions and when simple heuristics are (un)successful in optimal decision-making (Kahneman, 2011; Gigerenzer, 2024).

In sporting domains spurious correlations and false associations can thrive (Dwyer et al, 2018). Psychologically, misbeliefs may serve a role, potentially offering bettors a sense of control (Risen, 2016). Two strands of research closest to our tests are most relevant. In a sporting context, many oft stated beliefs that survive culturally are quasi-plausible and regularly made by those with domain-specific expertise. Whether experienced individuals in these domains form judgments through implicit encoding of complex patterns has received growing attention, facilitated by the availability of granular data in sport. Research has examined the predictive performance of tipsters with domain-specific expertise (Butler et al., 2021; Reade et al., 2022). Lyons (2016) investigated if machine learning predicts results better than tipsters and reports that former is less successful than experts at predicting race outcomes. While evidence is mixed, the views of domain-specific experts unsubstantiated beliefs may be due to a community's ability to integrate a complex array of subtle, contextual cues.

A second strand of research closely related to our study focuses on the efficiency of betting markets and, from a behavioural perspective, the prevalence of the favorite–longshot bias. Like our test, betting outcomes can be attributed to coincidence or faulty causal inferences. Dowie (1976) conducted one of the earliest studies on British horse racing markets, concluding that while not fully efficient, the market was not strongly inefficient either. Subsequent investigations produced mixed results across various horse racing contexts (Snyder, 1978; Hausch et al., 1981; Tuckwell, 1983; Asch et al., 1984; Crafts, 1985; Thaler & Ziemba, 1988; Asch & Quandt, 1990; Gabriel & Marsden, 1990). In the greyhound racing context, Gulati and Shetty (2007) examined market efficiency and found no evidence of a favourite–longshot bias.

4. EMPRIRICAL FRAMEWORK

Our data is provided by the Spotlight Sports Group and is validated using www.greyhounddata.com. It covers the entire 2018 greyhound racing season, from January to December, in Great Britain from nine elite racetracks. The individual racing performance of 78,595 greyhounds is observed over this 12-month period, all of whom competed in just over 13,000 races over the uniform distance of 525 yards (480 meters). For each race we have access to each greyhounds finishing position which form our dependent variable (FP). As a starting point, summary statistics on trap draw and finishing position are presented in Table 1. The basic race outcomes statistics lend initial support to the hypothesis that there is a disadvantage to starting a race in Trap 4. Trap 4 has the lowest strike rate at just 16.01%. Furthermore, Trap 4 is most likely to finish in 4th, 5th and 6th place in any race. Conversely, Trap 1 has the second highest chance of success, most likely to finish 2nd or 3rd and least likely to finish 6th.

Table 1: Trap and Finishing Position Percentage Share

	1st	2nd	3rd	4th	5th	6th
Trap 1	17.07%	18.22%	17.40%	16.29%	16.40%	15.00%
Trap 2	16.20%	17.17%	16.74%	17.37%	16.72%	16.24%
Trap 3	17.82%	16.19%	16.22%	16.45%	16.31%	17.21%
Trap 4	16.01%	16.13%	16.14%	16.79%	17.76%	17.42%
Trap 5	16.12%	16.21%	16.61%	16.61%	16.94%	17.41%
Trap 6	16.79%	16.08%	16.88%	16.50%	15.88%	16.72%

Source: Spotlight Sports Group

4.1 Independent Variables

These include pre-race variables trap drawn, starting betting odds, trainer, number of days since last race, and going (conditions of track). We also access within-race events and measure the position of each greyhound at bends one to four. Descriptive statistics for these are presented in Table 2. Races are graded from A1 (fastest) to A9 or A10 (slowest).

Table 2: Description of Independent Variables

Variable	Description	Mean	Min	Max	Further Details
Coffin Trap	Dummy Variable for greyhound in Trap 4.	-	0	1	0 = Trap 1,2,3,5,6; 1 = Trap 4
Track	Venue of the race	-	1	9	These tracks are Monmore, Perry Barr, Swindon, Newcastle, Central Park, Towcester, Nottingham, Sheffield, and Shawfield. Each track is assigned a number in the model.
Greyhound	Name of greyhound	-	1	6,396	6,396 individual greyhounds are observed at least once in the dataset.
Race Grade	Measure of race quality	-	1	18	Elite greyhounds Run in Grade 1 races, with higher numbers indicating lower quality.
Prizemoney	Monetary amount won by winner in GBP (£)	130	26	20,000	Reported Pounds Sterling (£).
Going	Conditions of the running surface.	-8.75	-170	70	Negative times were generally slower because the surface was softer, wetter, or otherwise less favourable for speed.
Betting Odds	Probability of success for each greyhound.	5.45	1.14	101	Based on the market formed by bookmakers
Trainer	The trainer of the greyhound.	-	1	439	439 trainers are observed in total. These are each assigned a number in the model.
Sire	The father of the greyhound.	-	1	337	337 sires are observed in total.
Sex	Female or male.	0.51	0	1	0 = male; 1 = female.
Days Since Run	Days since the greyhound's last race or official trial.	11.9	1	645	-
Bend Position 1-4	Where the greyhound is placed at each bend of the race.	-	1	6	-
Trap	Box where the greyhound is drawn.	-	1	6	-

Source: Spotlight Sports Group

A greyhound is moved up or down the race grades if its performance improves or declines. This classification ensures a degree of competitive balance as greyhounds race against greyhound of similar ability. The highest graded race is called 'Open Race.' Any greyhound can enter these races and will compete against greyhound of all abilities. For example, a greyhound that runs in a slow class (e.g., A9 or A10) could compete against a much faster greyhound (e.g., A1) in an Open Race, with little chance of success, however. Puppies also compete – greyhound either 2 years or younger – and are part of the dataset. To normalize the data used, Open Races are graded as 1, A1 races are numbered 2, A2 races 3, and so on to A10. Puppy races, referred to as P1-P7, are then numbered 12 to 18. This means race quality is measured on a scale from 1-18 and captures all ability levels.

As the tracks considered in this research are all sand based, going conditions refer to the speed at which the track can be run at on a given day. This is most notably impacted by the weather and temperature. Races held during the summer months often produce very fast times. This is because the sand is harder and faster. These conditions are believed to suit “railer” (Traps 1 and 2). Cold conditions in mid-winter can also produce similar conditions if the sand becomes solid or frozen. The mean value of -8.75 can be explained as follows. Since one length ≈ 0.08 seconds this is about 0.70 seconds slower. If a greyhound ran 28.50 seconds, subtracting 0.70 a standardised time of 27.80 seconds would be reported.

The opposite of these conditions are wet conditions that occur during times of rain, normally outside of summer months. This causes tracks to become wet and sticky and can suit greyhounds with more stamina. Winter weather can also bring stronger winds which negatively affect performance as it is more difficult to run. Heavy and persistent rainfall may impact track conditions so that the inside rail is slower than other parts of the track. The inclusion of a “Going” variable allows us to control for heterogeneity in track conditions across seasons.

Lastly, we include a variable to capture the number of days since a greyhound last ran in an official race. This is used to proxy the fitness of a greyhound at any point in time and could also be a measure of potential fatigue. Evidence suggests that extended absence from any sport that requires participants to race has a negative impact on performance when they return. Greyhounds that race more often have generally shorter careers in the sport.

4.2 Method

As the dependent variable is ordinal (finishing position between 1 and 6) with no assumption of equal spacing between ranks, this study uses an ordered logit estimator to empirically test the three hypotheses that follows:

Hypothesis 1: Trap draw influences race finishing position, conditional on controls for pre-race controls and within-races events.

Hypothesis 2: Trap 4 – the Coffin Trap – adversely affects race finishing position, conditional on pre-race controls and within-races events.

Hypothesis 3: Trap 4 – the Coffin Trap – adversely affects race finishing position with poorer performance relative to all other traps, conditional on pre-race controls and within-races events.

The models estimated are presented below:

$$FP_{i,t} = \alpha + \beta_I Trap_{i,t} + PR_{i,t} + WR_{i,t} + u_{i,t} \quad \textbf{(Equation 1)}$$

$$FP_{i,t} = \alpha + \beta_I Coffin_{i,t} + PR_{i,t} + WR_{i,t} + u_{i,t} \quad \textbf{(Equation 2)}$$

$$FP_{i,t} = \alpha + \beta_I TrapDummy_{i,t} + PR_{i,t} + WR_{i,t} + u_{i,t} \quad \textbf{(Equation 3)}$$

Where $Trap_{i,t}$is the trap that Greyhound i is drawn from in race *t*, $Coffin_{i,t}$ is a dummy variable that indicates a greyhound is drawn from Trap 4, $TrapDummy_{i,t}$ represents dummy variables for each trap, and $PR_{i,t}$ is a vector of controls for pre-race factors. $WR_{i,t}$ is a vector of controls for within-races events.

The three related hypotheses on trap bias in greyhound racing are explored to determine whether the trap draw matters. Hypothesis 1 (Equation 1) examines whether trap position has any overall effect on finishing position by treating trap numbers as a categorical variable and jointly testing all trap effects. Hypothesis 2 (Equation 2) focuses specifically on whether Trap 4 yields significantly worse outcomes relative to all other traps. Hypothesis 3 (Equation 3) estimates the individual effect of each trap relative to a baseline (Trap 1) to identify which positions are most advantageous or disadvantageous. For robustness, we then restricted the dataset to top tier races only – Open Races and Grades A1 and A2. This allows for the consideration of 15,692 elite greyhound performance, the results of which are reported in the next section.

5. RESULTS

Our empirical results are now presented and discussed. The full sample of 78,595 individual runs of some 6,396 greyhounds across more than 13,000 races is presented first. We then check the robustness of these results by limiting the sample to elite races only – 15,962 observations. Furthermore, for robustness, we estimate an ordered logit model to account for the ordinal nature of the dependent variable, which reflects ranked outcomes.

5.1 Full Sample

Table 3 presents four columns of results. Columns (1) and (2) seeks to explain greyhound performance using pre-race independent variables and are not impacted by with-in race conditions. The effects are largely intuitive. Betting odds has an expected, significant coefficient, with longer priced greyhounds finishing lower down the field, in higher positions e.g. 5^{th} or 6^{th}. The trainer matters, with some trainers performing better than others, as does the sex of the greyhound. Males outperform their female rivals, a finding that is unsurprising and

consistent with past research. For example, Dockerty (2016) reports that males had lower race times, faster mean speeds and better rank finish positions than females. While betting odds can potentially control for many of the other independent variables, the correlation between the former and the other regressors is low, with a correlation of less than 0.1 reported for each.

Table 3: Ordered Logit Estimations for Trap, Coffin Trap and Trap Draw.

Panel Regression	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Track	-0.015***	-0.014***	-0.014***	-0.014***	-0.014***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Grade	0.014***	0.0123***	0.011***	0.011***	0.011***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.002)
Odds	0.177***	0.177***	0.175***	0.175***	0.175***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Trainer	-	-0.000	-0.000	-0.000	-0.000
	-	(0.000)	(0.000)	(0.000)	(0.000)
Sire	-	0.000	0.000	0.000	0.000
	-	(0.000)	(0.000)	(0.000)	(0.000)
Sex	-	-0.032*	-0.0313*	-0.030*	-0.032*
	-	(0.014)	(0.014)	(0.014)	(0.014)
Days Off	-	-	0.002***	0.002***	0.002***
	-	-	(0.000)	(0.000)	(0.000)
Trap	-	-	0.0129**	-	-
	-	-	(0.004)	-	-
Coffin Trap	-	-	-	0.078***	-
	-	-	-	(0.017)	-
Trap 1	-	-	-	-	-
	-	-	-	-	-
Trap 2	-	-	-	-	0.046*
	-	-	-	-	(0.022)
Trap 3	-	-	-	-	0.091***
	-	-	-	-	(0.022)
Trap 4	-	-	-	-	0.131***
	-	-	-	-	(0.022)
Trap 5	-	-	-	-	0.058**
	-	-	-	-	(0.022)
Trap 6	-	-	-	-	0.073***
	-	-	-	-	(0.022)
Prizemoney (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Greyhound (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Going (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
N	79,682	79,682	78,625	78,625	78,625
Prob > chi^2	0.000	0.000	0.000	0.000	0.000
R^2	0.019	0.020	0.020	0.020	0.020

Statistical significance: *** 0.1%; ** 1%; * 5% and are presented with robust standard errors.

Column (3) and (4) introduces trap dynamics and days since a greyhounds last run. The number of days absent from racing has a negative impact on performance. This finding is consistent with the literature and other racing sports such as horse racing. Trap selection does appear to matter. The trap dummy variables (column 3) suggest that greyhounds drawn in higher numbered traps are significantly more likely to finishing in higher ordered finishing positions. The coffin trap is a significant disadvantage to greyhounds drawn. Being drawn in the coffin trap, a greyhound is significantly more likely to finish in a poorer position. The marginal effects shed light on this disadvantage. When compared to all other traps, a greyhound drawn in Trap 4 has a reduced probability of finishing first by more than 1%, on average. While these marginal probabilities are small, they are highly significant and confirm this intuition. Being assigned to Trap 4 decreases the probability of finishing in a place position (1st, 2nd, or 3rd) by almost 2%. Additionally, Trap 4 increases the likelihood of finishing in the lower positions (5th–6th) by nearly 1%.

Column 5 extend the model to account for the specific trap selection to empirically test whether these are influencing race outcomes. The introduction of trap dummies for each of the six traps allows consideration of relative performance. Trap 1 is reporting as having a significant advantage over all other traps. It is hardly surprising that Trap 1 is the most coveted in the sport. The only trap to report a significant disadvantage relative to all other traps is Trap 4. The greyhound from this trap has a significant disadvantage in its chance of finishing in a higher position before the start of the race. Again, the marginal probabilities demonstrate the scale of this effect. Compared to Trap 1, greyhounds assigned to Trap 4 experience a reduction in the probability of winning of almost 2% and of finishing in positions 1 to 4 by nearly 4%. The probability of finishing in positions 5 and 6 is about 1.5% higher. Although these effects are numerically small, they confirm that Trap 4 in our sample suffers a consistent disadvantage relative to the other traps. We take this as further evidence supporting the community belief.

Traps 2, 3, 5, and 6 all report higher probabilities of finishing in worse positions relative to Trap 1, ranging from about 0.6% to just over 1.2%. The disadvantage of Trap 4 considerably exceeds these.

Crucially, we control for a variety of fixed effects, including betting odds which give timely information on the probability of greyhound success. If the odds are efficient, any perceived disadvantage from being placed in the Coffin Trap would be expected to be built-in through market activity. This does not appear to be the case and suggests bettors do not receive fair odds when betting on Trap 4 – these odds should be longer – and those laying bets in the sport could exploit super normal profits due to the significant disadvantage of being drawn in Trap 4. The opposite effects hold for Trap 1.

To explore the robustness of these findings, Table 4 introduces within-race effects. This is both novel and possible as data availability is not an issue. This is crucial to our understanding of performance because race dynamics, after the start, can severely impact outcomes. For example, a greyhound that is priced as favourite, has an elite trainer and has recently run, may be expected to win. However, at bend 1 the greyhound may be 5th or 6th having broken slowly from the traps or been bumped by other greyhounds. As a result, their chances of success in the race may have been significantly reduced. The results in Table 4 bear this out. Position at bend 1 is crucial as those greyhounds placed in better positions e.g. 1st, 2nd, etc. have a significantly better chance of winning the race.[5] The correlation between position at bend 1 and finishing position is 0.334. Importantly, there appears little advantage to any trap in reaching bend 1 first – a sprint of approximately 100 yards – with the correlation between trap draw and position at bend 1 ranging from as low as 0.01 to a maximum of just 0.05.

[5] Tests are also run on bends 3 and 4. As expected, placement at each bend matters and position at bend 4 is the most critical to race outcomes and the most important of all four bends. This is where the greyhounds enter the final straight and the winner is determined

Given this, endogeneity is not a primary concern, as the key explanatory variables of trap drawn and bend 1 position are largely uncorrelated, determined exogenously and are not influenced by finishing position. Furthermore, there is no theoretical basis for reverse causality in the model.

Tables 4: Ordered Logit Estimations for Trap, Bend and Odds Interaction

Panel Regression	Trap Bend 1	Coffin Trap Bend 1	Trap Dummy Bend 1	Trap Dummy Bend 2	Trap Dummy Odds
Track	-0.012*	-0.014***	-0.013*	-0.006	-0.014***
	(0.005)	(0.004)	(0.005)	(0.007)	(0.004)
Race Grade	0.008**	0.011***	0.007	0.005	0.011***
	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)
Odds	0.167***	0.175***	0.160***	0.124***	0.170***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Trainer	-0.000	-0.000	-0.000	-0.001*	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sire	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
Sex	-0.101***	-0.037**	-0.124***	-0.052*	-0.030*
	(0.018)	(0.014)	(0.018)	(0.024)	(0.014)
Days Since Last Run	0.003***	0.002***	0.003***	0.004***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Trap-Bend1	0.043***	-	-	-	-
	(0.001)	-	-	-	-
Coffin Trap-Bend1	-	0.094***	-	-	-
	-	(0.005)	-	-	-
Trap 1	-	-	0.343***	0.701***	-
	-	-	(0.007)	(0.009)	-
Trap 2	-	-	0.347***	0.681***	-0.000
	-	-	(0.007)	(0.009)	(0.004)
Trap 3	-	-	0.388***	0.710***	0.013**
	-	-	(0.007)	(0.009)	(0.005)
Trap 4	-	-	0.385***	0.706***	0.016***
	-	-	(0.007)	(0.009)	(0.005)
Trap 5	-	-	0.344***	0.663***	0.000
	-	-	(0.007)	(0.009)	(0.004)
Trap 6	-	-	0.345***	0.662***	0.004
	-	-	(0.007)	(0.009)	(0.005)
Prizemoney (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Greyhound (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Going (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
N	78,625	78,625	78,625	78,625	78,625
Prob > chi^2	0.000	0.000	0.000	0.000	0.000
R^2	0.033	0.021	0.050	0.112	0.020

Statistical significance: *** 0.1%; ** 1%; * 5% and are presented with robust standard errors.

The interaction of bend 1 position and trap draw is significant and as expected indicating the importance of positioning at bend 1. Greyhounds closer to the led are more likely to finish in lower ordered places, with those behind likely to finish in poorer places. The marginal probabilities for the coffin trap–bend 1 interaction show that these greyhounds are 1.5% less likely to finish first and almost 2% more likely to finish 5th or 6th compared to all other greyhounds. All traps are affected by a slow start, with the log-probability of a higher finishing position increasing by more than one-third across all traps. The middle traps (3 and 4) show an increase in log-probability of almost 0.4. One can deduce that a slow start has a considerable negative effect on race outcomes. By Bend 2, being positioned higher in the race reduces the log-probability of winning by more than 0.7 for half the traps, demonstrating the importance of within-race dynamics.

The final column in Table 4 introduces a trap dummy–odds interaction. Interestingly, prior to the start of the race, only two traps report significant effects — the middle traps. The positive interactions for Traps 3 and 4, indicating a reliable, though very small, increase in the likelihood of poorer finishing positions for higher-odds greyhounds in these traps relative to Trap 1. Despite their statistical significance, the effect sizes are minimal, suggesting that odds remain largely predictive, with only a slight reduction in predictive strength for these middle traps.

5.2 Elite Races

To consider the robustness of the results, we restrict the sample to include only the most elite greyhounds. These are races where we suspect the most sophisticated betting patterns and market activity. Restricting the sample to Open Races (highest quality races) and races grades as A1 or A2 allows for the estimation of results from a sample of 15,692 greyhounds. We follow the approach of Tables 3 and 4 starting with pre-race effects only, before moving onto trap

dynamics, trap-bend interactions and odds interactions. Table 5 present the results of the restricted sample for elite races only, which are largely in line with the full sample.

Tables 5: Restricted Sample Ordered Logit Estimations for Trap, Coffin Trap and Trap Draw

Panel Regression	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Track	-0.007	-0.017*	-0.017*	-0.017*	-0.017*
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Race Grade	0.142***	0.153***	0.153***	0.154***	0.153***
	(0.019)	(0.021)	(0.021)	(0.021)	(0.021)
Odds	0.134***	0.132***	0.131***	0.132***	0.131***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Trainer	-	0.001**	0.001*	0.001*	0.001*
	-	(0.000)	(0.000)	(0.000)	(0.000)
Sire	-	-0.001*	-0.001*	-0.001*	-0.001*
	-	(0.000)	(0.000)	(0.000)	(0.000)
Sex	-	-0.109**	-0.109**	-0.109**	-0.111***
	-	(0.034)	(0.033)	(0.034)	(0.033)
Days Off	-	-	0.0024**	0.0023**	0.002**
	-	-	(0.001)	(0.001)	(0.001)
Trap	-	-	0.028**	-	-
	-	-	(0.009)	-	-
Coffin Trap	-	-	-	0.100*	-
	-	-	-	(0.0393)	-
Trap 1	-	-	-	-	-
	-	-	-	-	-
Trap 2	-	-	-	-	0.073
	-	-	-	-	(0.047)
Trap 3	-	-	-	-	0.103*
	-	-	-	-	(0.050)
Trap 4	-	-	-	-	0.192***
	-	-	-	-	(0.051)
Trap 5	-	-	-	-	0.164**
	-	-	-	-	(0.051)
Trap 6	-	-	-	-	0.123*
	-	-	-	-	(0.050)
Prizemoney (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Grade (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Going (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
N	15,787	15,787	15,787	15,787	15,692
Prob > chi^2	0.000	0.000	0.000	0.000	0.000
R^2	0.022	0.023	0.023	0.023	0.023

Statistical significance: *** 0.1%; ** 1%; * 5% and are presented with robust standard errors.

The number of observations moves from just under 80,000 to 15,787 elite greyhound races and remains a large sample size. Odds and the number of days since the last remain positive and significant. Sire and sex also remain importance explanatory variables. The trap

and coffin trap dummy variables remain robust and demonstrate that even elite greyhounds struggle to overcome the difficult of higher draws and being drawn in Trap 4. The size of the disadvantage rises to a 10% log-probability of finishing in a poorer position in the race, relative to the other five traps. The marginal probabilities confirm the disadvantage and corroborate the full sample. Trap 4 is 1.4% more likely to finish 5^{th} or 6^{th} relative to any other trap, even in elite races.

The trap dynamics remain largely consistent – even for elite greyhounds. Trap 1 is again the most advantageous draw. The Coffin Trap is the most significantly disadvantaged. There is a significant chance of finishing in a higher position in the race. Again, Trap 4 is not alone, but the disadvantage is lower for all other traps, as are the log-probabilities. For Trap 2, these disadvantages disappear entirely, leaving it at no disadvantage relative to Trap 1. The marginal probabilities confirm that the coffin trap is also the most disadvantaged, relative to Trap 1, in elite races. A greyhound in Trap 4 is 2.7% less likely to win the race and more than 4% less likely to be placed. No other trap suffers the same level of disadvantage. This empirically supports the folk belief – Trap 4 is the Coffin Trap.

Table 6 reintroduces the trap-bend interactions for the elite sample. Again, the results largely corroborate the full sample and point to a disadvantage of starting from either the Coffin Trap draw or higher draws. The advantage of the lower draws, relative to the Coffin Trap, does disappear if a greyhound starts the races slower and is in higher ordered positions at bend 1 or bend 2. The log-probabilities of finishing higher are even greater – roughly 45%-50% higher at bend 1 and 85%-90% higher at bend two. This demonstrates how elite greyhounds exploit an early within-race advantage.

Importantly, there again appears little advantage to any trap in reaching bend 1 first from their initial starting position – a sprint of approximately 100 yards – with the correlation between traps and position at bend 1 ranging from 0.04 to a maximum of just 0.08. As an

additional check the GLM are estimated using an ordered logit. The trap dummy-odds interaction reports no significant effects indicating that the relationship between odds and winning probability is broadly similar across traps in elite races. This may reflect that odds already incorporate information about trap effects or that the true interaction, if present, is too small to detect given the data.

Tables 6: Restricted Sample Ordered Logit Estimations for Trap, Bend and Odds Interaction

Panel Regression	Trap Bend 1	Coffin Trap Bend 1	Trap Dummy Bend 1	Trap Dummy Bend 2	Trap Dummy Odds
Track	-0.019*	-0.016	-0.013	0.000	-0.017*
	(0.009)	(0.008)	(0.009)	(0.011)	(0.008)
Race Grade	0.124***	0.151***	0.120***	0.087***	0.155***
	(0.023)	(0.021)	(0.022)	(0.024)	(0.021)
Odds	0.117***	0.131***	0.111***	0.084***	0.126***
	(0.006)	(0.006)	(0.006)	(0.005)	(0.009)
Trainer	0.000	0.001*	0.000	-0.000	0.001*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sire	-0.001*	-0.001*	-0.001**	-0.001	-0.001*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sex	-0.145***	-0.117***	-0.180***	-0.101*	-0.108**
	(0.040)	(0.034)	(0.041)	(0.049)	(0.034)
Days Since Last Run	0.003***	0.002**	0.003***	0.004***	0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trap-Bend1	0.056***	-	-	-	-
	(0.002)	-	-	-	-
Coffin Trap-Bend1	-	0.123***	-	-	-
	-	(0.009)	-	-	-
Trap 1	-	-	0.428***	0.869***	-
	-	-	(0.015)	(0.021)	-
Trap 2	-	-	0.452***	0.843***	-0.001
	-	-	(0.014)	(0.018)	(0.009)
Trap 3	-	-	0.515***	0.906***	0.009
	-	-	(0.016)	(0.019)	(0.009)
Trap 4	-	-	0.505***	0.888***	0.0165
	-	-	(0.015)	(0.018)	(0.009)
Trap 5	-	-	0.462***	0.868***	0.007
	-	-	(0.015)	(0.019)	(0.009)
Trap 6	-	-	0.447***	0.837***	0.002
	-	-	(0.016)	(0.019)	(0.010)
Prizemoney (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Greyhound (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Going (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
N	15,692	15,692	15,692	15,692	15,692
Prob > chi^2	0.000	0.000	0.000	0.000	0.000
R^2	0.045	0.026	0.071	0.154	0.023

Statistical significance: *** 0.1%; ** 1%; * 5% and are presented with robust standard errors.

These results are presented in Appendix 1, 2 and 3 and are very similar to those estimated using the ordered logit model. This holds across both the full sample and the restricted same of elite races only, with the full sample results presented in the appendices. We do not reject hypothesis 1 - trap draw influences race finishing position. This also holds for hypotheses 2 and 3 and we do not reject the premise that the Coffin Trap adversely affects finishing position and finishing position relative to all other traps, conditional on pre-race controls and within-races events. Across all races, the coffins trap has a higher probability of finish in a poorer placing. For elite races, as with the ordered logit model, the disadvantage increases. These results corroborate the estimations in Tables 3 to 6.

6. IMPLICATIONS

The primary result is that the community intuition is accurate. Our empirical analysis provides robust support for the folk belief that greyhounds positioned in Trap 4 suffer a performance penalty. This alignment between intuition and large-scale data provides evidence of the successfulness of a decision rule that, we conjecture, is based on an associative learning process. We suspect that historically bettors gained slow experiential knowledge to identify patterns. Our empirical results support what bettors have long believed and socially reinforced culturally.

What are the practical implications of the results? Greyhound racing is a sport actively followed by bettors each day, with many placing considerable wagers on course and online. Many bettors may remain unaware of the beliefs surrounding Trap 4, and the disadvantage we document. Our estimates show that greyhounds starting from Trap 4 face a reduced probability of finishing first of up to 3%. The likelihood of finishing in the highest three places is reduced by between 2% and 4%, depending on the race. Moreover, Trap 4 runners face an increased probability of up to 1.5% of finishing second-to-last or last. While these magnitudes may

appear modest, inefficiencies can inform betting strategies and have an economically meaningful impact; the failure to account for any disadvantage provides scope for bettors (and bookmakers) to exploit the mispricing. For example, it may be possible to take advantage of market inefficiencies by placing bets on Trap 1 or laying bets on Trap 4. This insight extends to an each-way betting dimension, where a greyhound can finish in 1st or 2nd place for the bet to offer a return. In elite races – those graded as A1, A2, or Open categories – systematic win stakes on Trap 1 should result in above-normal returns, or alternatively, laying Traps 4 may achievement super-normal returns. Trap 1 should report above-normal returns when a match bet[6] is placed *vis-à-vis* all other traps.

Finally, our results have practical implications for the governance and fairness of the sport itself. The purpose of the trap draw system is to ensure that, ceteris paribus, each greyhound has an equal opportunity to succeed. However, our analysis reveals a structural imbalance in the contest design: greyhounds starting from Trap 4 are consistently disadvantaged.

We do need to be cautious with our implications. Greyhound races are short and fast; minor factors like a stumble, a slight delay at the start, or interactions between greyhounds can be critical to outcomes. The reported R^2 for some models remains very low, despite including nearly all measurable factors in the sport. This is also true of the marginal probabilities. This likely reflects the high level of randomness in race results, where small, unobserved factors (e.g., minor interactions during the race) exert a strong influence. While predictors such as odds or trap draw may be statistically significant—as we have shown—much of the variation remains unexplained, highlighting the limits of predictive accuracy. Therefore, the odds reflect market expectations, which already aggregate much predictive information, and, while

[6] Match race betting in greyhound racing is a type of bet where you bet on the outcome between two specific greyhounds within a race, rather than the entire field of competitors. This means you are only concerned with which of the two selected greyhounds will finish ahead of the other, regardless of their actual positions in the race relative to other greyhounds.

significant, cannot explain all the residual variation in who wins. Within-race activity matters far more, as reflected by the increase in R^2 when using Bend 1 and Bend 2 interactions. This rises further for Bends 3 and 4, with an R^2 close to 90%. While starting position does matter, as in any race, what happens during the contest is a far better predictor of finishing position.

7. CONCLUSION

Using an extensive observational dataset, we set out to test—and potentially falsify—a persistent folk belief in a structured but high-stakes real-world setting. We are unable to do so. Instead, our evidence supports the merit of intuition. A valid cue that been passed down through generations effectively distils complex information and can aid bettor decision making under uncertainty. This finding primarily contributes to the broader debate in psychology and behavioural economics concerning the validity of heuristics grounded in experience and pattern recognition. A key aspect of this contribution is methodological, as we verify a community belief in a field context in a laboratory-like environment. Like Gulati and Shetty (2007), we find betting odds to be largely efficient and significant predictor of race outcomes. As our research is the first that we know of to explore trap dynamics in the sport, future research could make advances by exploring how greyhound performance varies across trap e.g. does the same greyhound perform differently starting from different traps. Other research approaches include a focus on race times – rather than categorical finishing positions as explored in this work – to ask if variations are present across traps.

Our findings also carry a practical advice to the community. Trap selection is consequential to race outcomes, and this is not built into market prices. The folk belief surrounding Trap 4 is shown to have predictive validity and should be sustained. Although market odds remain a highly significant predictor of outcomes across models, they

systematically underrepresent the influence of trap position. This is important to gamblers and administrators of the sport.

A natural extension of this work is to identify the mechanism driving Trap 4's disadvantage and asking how bettors learn or what channels preserve the belief. Here, we can only offer conjecture on the psychological mechanisms underlying the decision rule. We hypothesise that this learning occurred by virtue of the curvature of the track and the running styles of greyhounds interacting unfavourably for centrally positioned greyhounds - this leads to salient episodes during races that hamper the success of the Trap 4 greyhound. These issues could also be further investigated by analysing data from straight-line races which are currently unavailable in Great Britain but potentially accessible in other jurisdictions.

REFERENCES

Antipov, E. A., & Pokryshevskaya, E. B. (2020). Impact of superstitious beliefs on the timing of marriage and childbirth: Evidence from Denmark. *Judgment and Decision Making*, 15(5), 756-762.

Asch, P., Malkiel, B.G. & Quandt, R.E. (1984), "Market Efficiency in Racetrack Betting", *The Journal of Business* (Chicago, Ill.), vol. 57, no. 2, pp. 165-175.

Asch, P., & Quandt, R. E. (1990). Risk love. *The Journal of Economic Education*, *21*(4), 422-426.

Banks, A. P., & Gamblin, D. M. (2022). Successful everyday decision making: Combining attributes and associates. *Judgment and Decision Making*, *17*(6), 1255-1286.

Beck, J., & Forstmeier, W. (2007). Superstition and belief as inevitable by-products of an adaptive learning strategy. *Human Nature*, *18*, 35-46.

Butler, D., & Butler, R. (2021). The evolution of the football jersey–an institutional perspective. *Journal of Institutional Economics*, *17*(5), 821-835.

Butler, D., Butler, R., & Eakins, J. (2021). Expert performance and crowd wisdom: Evidence from English premier league predictions. *European Journal of Operational Research*, *288*(1), 170-182.

Crafts, N. F.R. (1985). 'Some Evidence of Insider Knowledge in Horse Race Betting in Britain.' *Economica* 52, pp.295-304.

Dwyer, B., Slavich, M. A., & Gellock, J. L. (2018). A fan's search for meaning: Testing the dimensionality of sport fan superstition. *Sport Management Review*, *21*(5), 533-548.

Dockerty, R., (2016). "A Multifactorial Genetic Approach to Improving Welfare in the Racing Greyhound." Doctor of Philosophy thesis, University of Liverpool.

Dowie, J. (1976). On the efficiency and equity of betting markets. *Economica,* 43, 139-150

Gabriel, P. E., & Marsden, J. R. (1990). An examination of market efficiency in British racetrack betting. *Journal of Political Economy*, *98*(4), 874-885.

Gershman, B. (2015). The economic origins of the evil eye belief. *Journal of Economic Behavior & Organization*, *110*, 119-144.

Gigerenzer, G. (2018). The bias bias in behavioral economics. *Review of Behavioral Economics*, *5*(3-4), 303-336.

Gigerenzer, G. (2024). The rationality wars: a personal reflection. *Behavioural Public Policy*, 1-21.

Gulati, A., & Shetty, S. (2007). Empirical evidence of error in pricing of favorites and longshots in greyhound racing. *Journal of Economics and Finance*, *31*(1), 49-58.

Greyhound Board of Great Britain (2024a). Our Racecourses. https://www.gbgb.org.uk/racing/race-courses/

Greyhound Board of Great Britain (2024b). Rules of Racing. Available at https://www.gbgb.org.uk/rules-regulation/rules-of-racing/

Hausch, D., Ziemba, W. and Rubinstein, M. (1981). 'Efficiency of the Market for Racetrack Betting.' *Management Science* 27, pp. 1435-1452.

Haselton, M. G., & Nettle, D. (2006). The paranoid optimist: An integrative evolutionary model of cognitive biases. *Personality and Social Psychology Review*, *10*(1), 47-66.

Hossain, M. I., Eager, D., & Walker, P. D. (2020). Greyhound racing ideal trajectory path generation for straight to bend based on jerk rate minimization. *Scientific Reports*, *10*(1), 7088.

Kahneman, D. (2011). *Thinking, Fast and Slow*. Macmillan.

Lyons, A. (2016). *Man v Machine: Greyhound Racing Predictions* (Doctoral dissertation, Dublin, National College of Ireland).

Liu, J., Tsang, E. W., & Shi, W. (2025). The superstitious heuristic in strategic decision making. *Journal of Management*, 51(2), 843-874.

Martin, J., (2007) 'No sense in the middle ground.' *Irish Independent*, 27 March. Available at: https://www.independent.ie/sport/horse-racing/no-sense-in-the-middle-ground-26272431.html [24 February 2022].
Matthews, D., (2006). *Man Buys Dog*. 1st ed. London: Headline Publishing Group.
Pravichai, S., & Ariyabuddhiphongs, V. (2015). Superstitious beliefs and problem gambling among Thai lottery gamblers: The mediation effects of number search and gambling intensity. *Journal of Gambling Studies*, *31*, 1633-1649.
Racing Post (2025). Gone to the dogs: Crayford closure a stark reminder of the decline of a sport that could once attract royalty. Available at https://www.racingpost.com/news/britain/gone-to-the-dogs-crayford-closure-a-stark-reminder-of-the-downfall-of-a-sport-that-could-once-attract-royalty-atuwp9R6Lj78/.
Reade, J. J., Singleton, C., & Brown, A. (2021). Evaluating strange forecasts: The curious case of football match scorelines. *Scottish Journal of Political Economy*, *68*(2), 261-285.
Risen, J. L. (2016). Believing what we do not believe: Acquiescence to superstitious beliefs and other powerful intuitions. *Psychological Review*, *123*(2), 182.
Schaffir, J. (2002). Survey of folk beliefs about induction of labor. *Birth*, *29*(1), 47-51.
Snyder, W. (1978.) 'Horse racing: testing the efficient markets model.' *The Journal of Finance* 33(4), pp. 1109-1118
Stafford, K. (2007). *The Welfare of Dogs* (Vol. 4). Springer Science & Business Media.
Tuckwell, R., (1983) 'The thoroughbred gambling market: efficiency, equity and related issues.' *Australian Economic Papers*, 22(40), pp.106-118.
Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1124–1131.
Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, 322(5898), 115-117.

APPENDICES

Appendix 1: GLM Estimations for Trap, Coffin Trap and Trap Draw

Panel Regression	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Track	-0.020***	-0.015***	-0.015***	-0.015***	-0.014***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Race Grade	-0.005	-0.007**	-0.006*	-0.006*	-0.005*
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Odds	0.144***	0.144***	0.143***	0.143***	0.143***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Trainer	-	-0.000**	-0.000**	-0.000**	-0.000**
	-	(0.000)	(0.000)	(0.000)	(0.000)
Sire	-	0.000	0.000	0.000	0.000
	-	(0.000)	(0.000)	(0.000)	(0.000)
Sex	-	-0.044**	-0.0402**	-0.039**	-0.0401**
	-	(0.014)	(0.014)	(0.014)	(0.014)
Days Off	-	-	0.002***	0.002***	0.002***
	-	-	(0.000)	(0.000)	(0.000)
Trap	-	-	0.0114**	-	-
	-	-	(0.004)	-	-
Coffin Trap	-	-	-	0.070***	-
	-	-	-	(0.016)	-
Trap 1	-	-	-	-	-
	-	-	-	-	-
Trap 2	-	-	-	-	0.051*
	-	-	-	-	(0.020)
Trap 3	-	-	-	-	0.080***
	-	-	-	-	(0.022)
Trap 4	-	-	-	-	0.126***
	-	-	-	-	(0.022)
Trap 5	-	-	-	-	0.066**
	-	-	-	-	(0.022)
Trap 6	-	-	-	-	0.057**
	-	-	-	-	(0.022)
Constant	2.922***	3.000***	2.921***	2.946***	2.892***
	(0.028)	(0.0375)	(0.0391)	(0.0373)	(0.040)
Prizemoney (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Greyhound (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Going (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
N	79,682	79,682	78,625	78,625	78,625
VIF	2.19	2.37	2.62	2.12	2.73
Prob > chi^2	0.000	0.000	0.000	0.000	0.000
R^2	0.017	0.017	0.017	0.017	0.012

Statistical significance: *** 0.1%; ** 1%; * 5% and are presented with robust standard errors.

Appendix 2: GLM Estimations for Trap, Bend and Odds Interaction

Panel Regression	Trap Bend 1	Coffin Trap Bend 1	Trap Dummy Bend 1	Trap Dummy Bend 2	Trap Dummy Odds
Track	-0.013**	-0.0144***	-0.012*	-0.006	-0.014***
	(0.005)	(0.004)	(0.005)	(0.005)	(0.004)
Race Grade	-0.018***	-0.007*	-0.020***	-0.024***	-0.006*
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Odds	0.128***	0.142***	0.120***	0.081***	0.145***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)
Trainer	-0.002***	-0.000**	-0.001***	-0.001***	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sire	0.000	0.000	0.000	0.000*	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sex	-0.126***	-0.046***	-0.126***	-0.049*	-0.037**
	(0.018)	(0.014)	(0.017)	(0.019)	(0.014)
Days Since Last Run	0.003***	0.002***	0.002***	0.003***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Trap-Bend1	0.054***	-	-	-	-
	(0.001)	-	-	-	-
Coffin Trap-Bend1	-	0.100***	-	-	-
	-	(0.004)	-	-	-
Trap 1	-	-	0.343***	0.634***	-
	-	-	(0.005)	(0.005)	-
Trap 2	-	-	0.352***	0.619***	-0.001
	-	-	(0.005)	(0.005)	(0.004)
Trap 3	-	-	0.386***	0.636***	0.004
	-	-	(0.005)	(0.005)	(0.005)
Trap 4	-	-	0.389***	0.640***	0.008
	-	-	(0.005)	(0.004)	(0.005)
Trap 5	-	-	0.350***	0.606***	-0.003
	-	-	(0.005)	(0.005)	(0.004)
Trap 6	-	-	0.350***	0.607***	-0.011
	-		(0.005)	(0.005)	(0.006)
Constant	2.567***	2.922***	2.021***	1.180***	2.949***
	(0.043)	(0.037)	(0.042)	(0.044)	(0.037)
Prizemoney (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Greyhound (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Going (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
N	78,625	78,625	78,625	78,625	78,625
VIF	2.82	2.60	2.39	2.39	2.94
Prob > chi^2	0.000	0.000	0.000	0.000	0.000
R^2	0.101	0.070	0.159	0.329	0.064

Statistical significance: *** 0.1%; ** 1%; * 5% and are presented with robust standard errors.

Appendix 3: Restricted Sample GLM Estimations for Trap, Coffin Trap & Trap Draw

Panel Regression	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Track	-0.011	-0.016*	-0.016*	-0.016*	-0.015*
	(0.007)	(0.008)	(0.008)	(0.008)	(0.008)
Race Grade	0.081***	0.093***	0.097***	0.096***	0.099***
	(0.018)	(0.019)	(0.019)	(0.019)	(0.019)
Odds	0.101***	0.100***	0.100***	0.100***	0.100***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Trainer	-	0.000	0.000	0.000	0.000
	-	(0.000)	(0.000)	(0.000)	(0.000)
Sire	-	-0.001	-0.001	-0.001	-0.001
	-	(0.000)	(0.000)	(0.000)	(0.000)
Sex	-	-	-0.110***	-0.110***	-0.112***
	-	-	(0.031)	(0.031)	(0.031)
Days Off	-	-	0.002**	0.002**	0.002**
	-	-	(0.001)	(0.00)	(0.001)
Trap	-	-	0.029***	-	-
	-	-	(0.008)	-	-
Coffin Trap	-	-	-	0.0923*	-
	-	-	-	(0.036)	-
Trap 1	-	-	-	-	-
	-	-	-	-	-
Trap 2	-	-	-	-	0.083
	-	-	-	-	(0.043)
Trap 3	-	-	-	-	0.098*
	-	-	-	-	(0.046)
Trap 4	-	-	-	-	0.192***
	-	-	-	-	(0.047)
Trap 5	-	-	-	-	0.182***
	-	-	-	-	(0.047)
Trap 6	-	-	-	-	0.117*
	-	-	-	-	(0.047)
Constant	2.832***	2.991***	2.861***	2.942***	2.923***
	(0.066)	(0.088)	(0.091)	(0.088)	(0.093)
Prizemoney (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Grade (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Going (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
N	15,787	15,787	15,787	15,787	15,692
VIF	2.05	3.35	3.43	2.96	2.79
Prob > chi^2	0.000	0.000	0.000	0.000	0.000
R^2	0.071	0.073	0.074	0.074	0.075

Statistical significance: *** 0.1%; ** 1%; * 5% and are presented with robust standard errors.

Appendix 4: Restricted Sample GLM Estimations for Trap, Bend and Odds Interaction

Panel Regression	Trap Bend 1	Coffin Trap Bend 1	Trap Dummy Bend 1	Trap Dummy Bend 2	Trap Dummy Odds
Track	-0.021*	-0.015*	-0.014	-0.004	-0.015*
	(0.008)	(0.008)	(0.008)	(0.007)	(0.008)
Race Grade	0.032	0.090***	0.031	-0.004	0.100***
	(0.020)	(0.019)	(0.018)	(0.016)	(0.019)
Odds	0.079***	0.098***	0.073***	0.044***	0.102***
	(0.004)	(0.005)	(0.004)	(0.003)	(0.007)
Trainer	0.000	0.000	-0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sire	-0.001*	-0.002	-0.001**	-0.001	-0.001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sex	-0.140***	-0.118***	-0.157***	-0.058	-0.108***
	(0.036)	(0.031)	(0.034)	(0.033)	(0.031)
Days Since Last Run	0.002***	0.002**	0.002***	0.003***	0.0019**
	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)
Trap-Bend1	0.063***	-	-	-	-
	(0.002)	-	-	-	-
Coffin Trap-Bend1	-	0.122***	-	-	-
	-	(0.009)	-	-	-
Trap 1	-	-	0.389***	0.673***	-
	-	-	(0.012)	(0.010)	-
Trap 2	-	-	0.412***	0.657***	-0.001
	-	-	(0.011)	(0.009)	(0.007)
Trap 3	-	-	0.459***	0.690***	-0.000
	-	-	(0.012)	(0.009)	(0.008)
Trap 4	-	-	0.458***	0.679***	0.008
	-	-	(0.011)	(0.008)	(0.008)
Trap 5	-	-	0.423***	0.667***	0.004
	-	-	(0.011)	(0.009)	(0.007)
Trap 6	-	-	0.413***	0.655***	-0.013
	-	-	(0.011)	(0.009)	(0.009)
Constant	2.559***	2.930***	1.902***	1.075***	2.933***
	(0.093)	(0.088)	(0.089)	(0.085)	(0.088)
Prizemoney (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
Grade	(Y)	(Y)	(Y)	(Y)	(Y)
Going (FE)	(Y)	(Y)	(Y)	(Y)	(Y)
N	15,692	15,692	15,692	15,692	15,692
VIF	3.16	2.95	2.64	2.64	3.51
Prob > chi^2	0.000	0.000	0.000	0.000	0.000
Pseudo R^2	0.141	0.083	0.216	0.424	0.074

Statistical significance: *** 0.1%; ** 1%; * 5% and are presented with robust standard errors.