Errata for *Bayesian Statistics the Fun Way* (updated to 6th printing)

Page 29: The line:

"So, using our die roll and coin toss example, the probability of rolling a number less than 6 or flipping a heads is:"

should now read:

"So, using our die roll and coin toss example, the probability of rolling a number equal to 6 or flipping a heads is:"

Page 41: In the y axis on Figure 4.2:

B(k; 10, 1/2)

should now read:

B(k; 10, 1/6)

and the caption for Figure 4.2 that reads:

"The probability of getting a 6 when rolling a six-sided die 10 times"

should now read:

"The probability of getting 6 k times when rolling a six-sided die 10 times"

Page 51: The line:

"What we get in the end is a function that describes the probability of each possible hypothesis for our true belief in the probability of getting two heads from the box . . ."

should now read:

"What we get in the end is a function that describes the probability of each possible hypothesis for our true belief in the probability of getting two coins from the box . . ."

Page 71: The equation:

numberOfRedStuds = P (yellow | red) × numberOfRedStuds = 1/5 × 20 = 4

should now read:

numberOfRedUnderYellow = P(yellow | red) × numberOfRedStuds = 1/5 × 20 = 4

Page 87: The equation:

Beta (20002,7401) = Beta (2 + 20000, 7400 + 1)

should now read:

Beta (20002,7441) = Beta (2 + 20000, 7440 + 1)

Page 88: The top label on Figure 9-3 that reads:

"Distribution of our prior belief Beta(2+20000,7400+1)"

should now read:

"Distribution of our posterior belief Beta(2+20000,7440+1)"

Page 105: In the last row of Table 11-1, under the "Difference from mean" column, –0.16 should now read –0.2.

and in the equation, a_1 and b_1 should instead be a_i and b_i (subscript 1 should be subscript i)

Page 106: In the second equation, 2.08 should now read 0.416.

Page 127: In the top code block, we deleted the second code line:

```
xs.all <- seq(0,1,by=0.0001)
```


Page 130: The reference to Figure 3-5 should instead read Figure 13-5.

Page 164: The line:

"The prior odds look like this:"

should now read:

"The probabilities look like this:"

and in the last equation, the fraction 223/370,000 should now read 245/370,000.

and the line:

"This result shows that H2 is about 1,659 times more likely than H1."

should now read:

"This result shows that H2 is about 1,510 times more likely than H1."

Page 224: The line:

"Since you've run half a mile, using this simple formula, we can figure out:"

should now read:

"Since you've run half an hour, using this simple formula, we can figure out:"

Page 234: The line:

"As expected, the probability of this is extremely low: about 1/32,000."

should now read:

"As expected, the probability of this is low: about 1/2,200."

Page 236: The line:

"Luckily we already did all this work earlier in the chapter, so we know that (A) = 4/1,000 and P(B) = 3/(100,000)."

should now read:

"Luckily we already did all this work earlier in the chapter, so we know that (A) = 8/100 and P(B) = 3/(100,000)."

Page 237: The line:

"Plugging in our numbers, we get an answer of 100,747/25,000,000 or 0.00403."

should now read:

"Plugging in our numbers, we get an answer of 800,276/10,000,000 or 0.0800276."

Page 242: In the last line of code on the page:

```
temp.sd <- my.sd(temp.data)
```

should now read:

```
temp.sd <- sd(temp.data)
```

Page 250: The second equation:

P (D | H2) = 0.63 × 0.55 × 0.49 = 0.170

should now read:

P (D | H2) = 0.94 x 0.83 x 0.49 = 0.382

And the line:

"This means that given the Bayes factor alone, vestibular schwannoma is a roughly two times better explanation than labyrinthitis. Now we have to look at the odds ratio:"

Should now read:

"This means that given the Bayes factor alone, vestibular schwannoma is a roughly four times better explanation than labyrinthitis. Now we have to look at the prior odds ratio:"

Page 251: The line:

"The end result is that labyrinthititis is only a slightly better explanation than vestibular schwannoma."

should now read:

"The end result is that vestibular schwannoma is only a slightly better explanation than labyrinthitis."

Page 254: In the top equation, the content should now read:

50 = 9/19 × BF BF = 950

and the second line of the first code block:

```
hypotheses <- seq(0,1,by=0.01)
```

should now read:

```
hypotheses <- seq(0,1,by=dx)
```