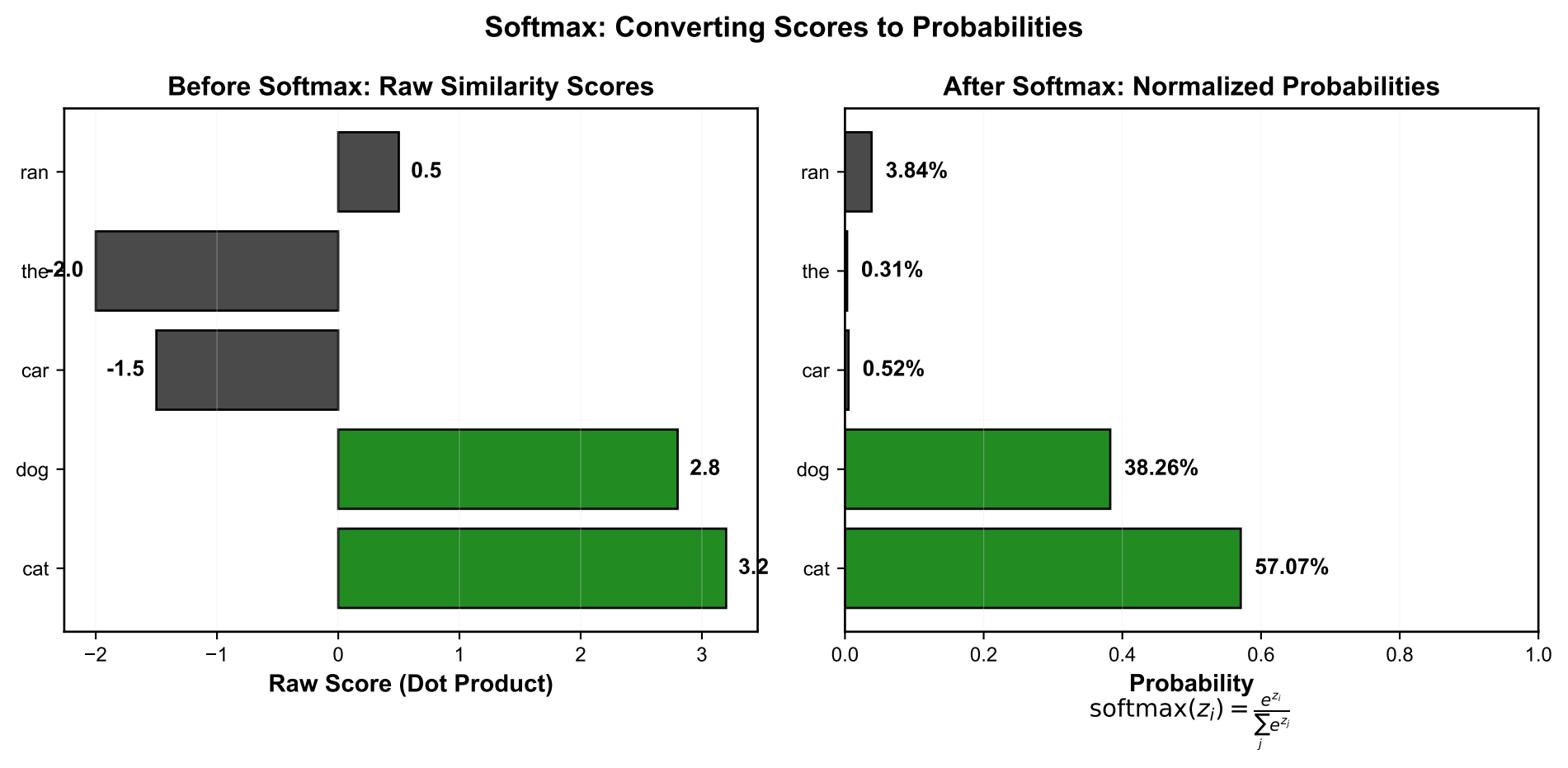
Softmax: Converting Scores to Probabilities
Before Softmax: Raw Similarity Scores
ran
the
car
dog
cat
0.5
-2.0
-1.5
2.8
3.2
−2
−1
0
1
2
3
Raw Score (Dot Product)
After Softmax: Normalized Probabilities
ran
the
car
dog
cat
3.84%
0.31%
0.52%
38.26%
57.07%
0.0
0.2
0.4
0.6
0.8
1.0
Probability
$\text{softmax}(z_i) = \frac{e^{z_i}}{\sum_j e^{z_j}}$