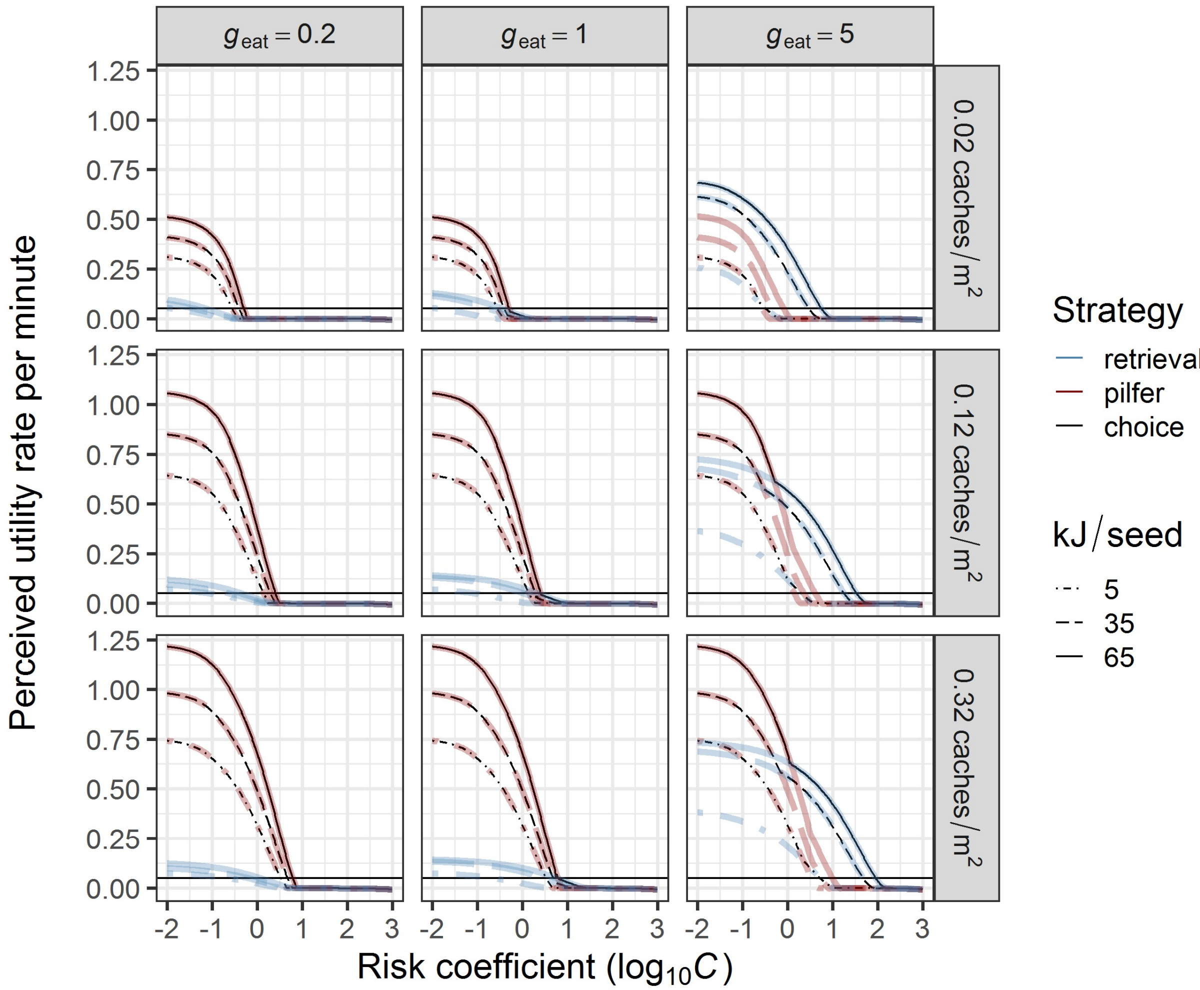

Figure S1. Optimal selection of foraging strategies as a function of the perceived riskiness of the foraging location (x-axis) , the value of cached seeds (line styles), cache density (rows), and forager condition (columns; hunger increases from left to right). Red lines show the maximum potential benefit of memory-based retrieval, and blue lines show the corresponding maximum potential benefit of pilferage. Black lines show the benefit achieved by a forager that is free to select its foraging strategy.

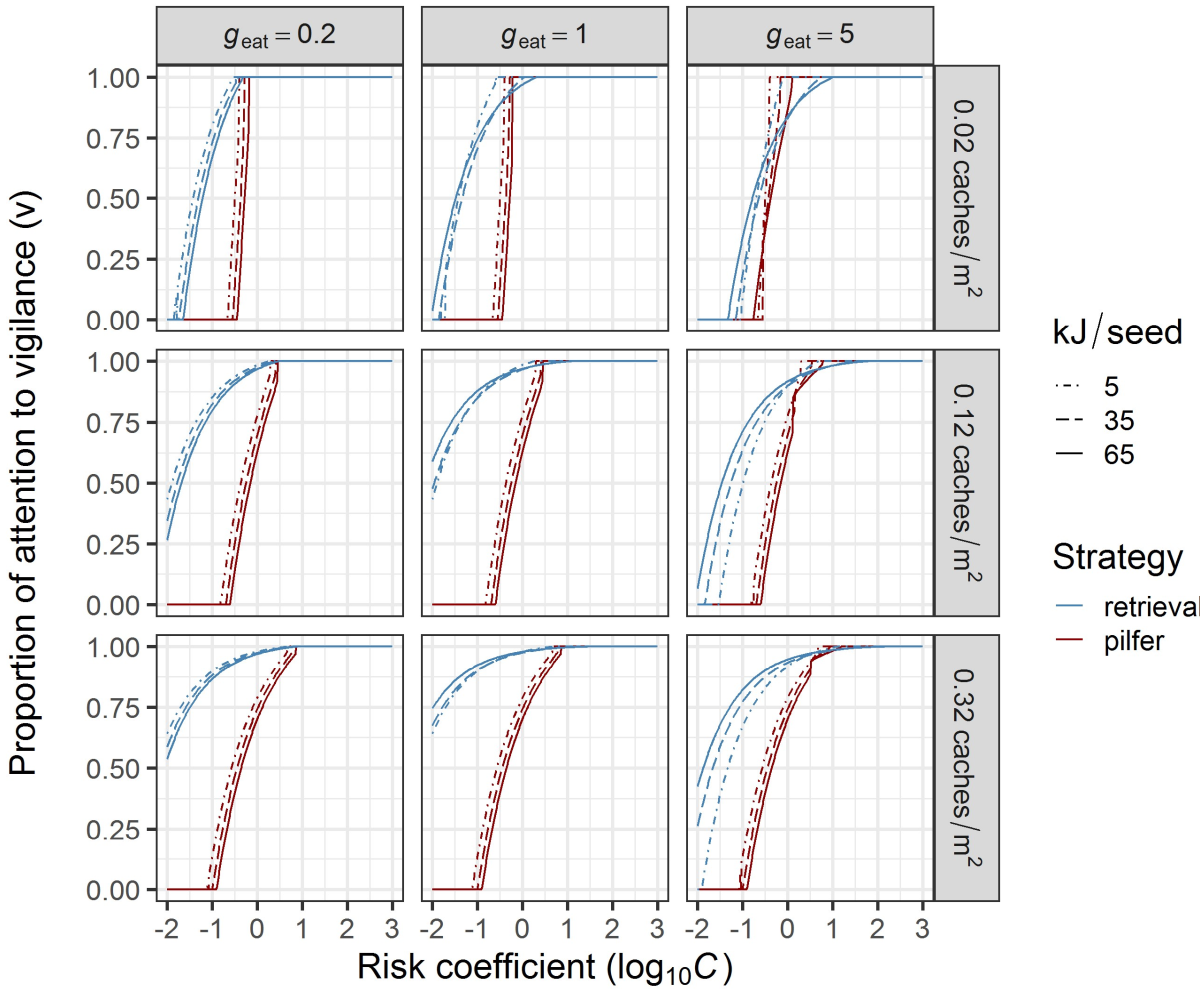

Figure S2. Allocation of attention to vigilance at optimal foraging rates for retrieval (blue) versus pilferage (red), as a function of the perceived riskiness of the foraging location (x-axis) , the value of cached seeds (line styles), cache density (rows), and forager condition (columns; hunger increases from left to right). Memory-based retrieval is more efficient and requires less attention than pilferage. As a result, foragers engaged in retrieval can exercise greater levels of vigilance than foragers engaged in pilfering. As foragers become hungrier (columns to the right), they also become more willing to forgo vigilance in order to obtain food.

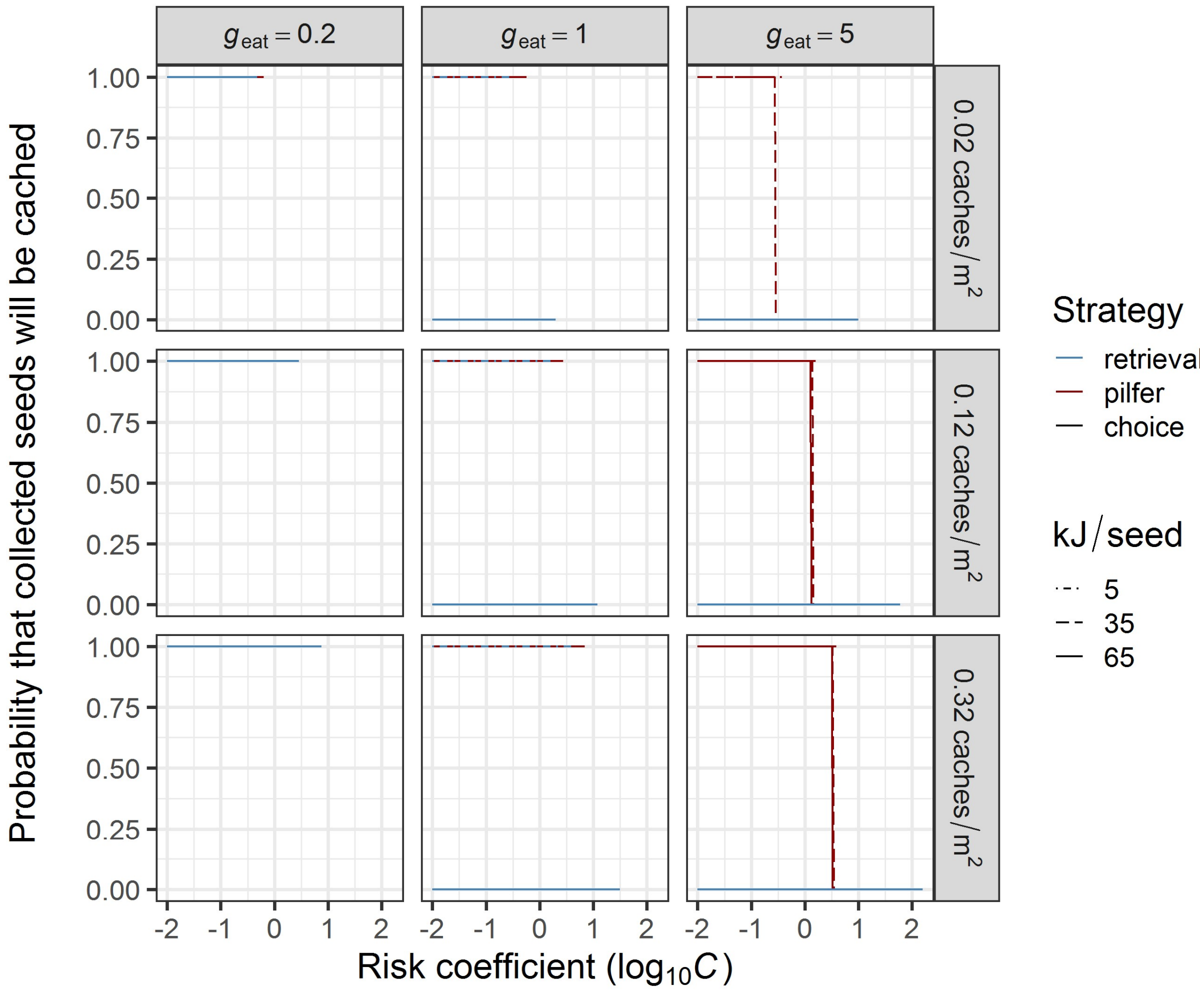

Figure S3. Allocation of seeds to caching versus consumption at optimal foraging rates for retrieval (blue) versus pilferage (red), as a function of the perceived riskiness of the foraging location (x-axis) , the value of cached seeds (line styles), cache density (rows), and forager condition (columns; hunger increases from left to right). Lines show the proportion of foraged seeds that will be cached versus eaten at the optimal foraging rate under a given set of conditions. Because seed allocation becomes unstable when foraging yields approach zero, lines are truncated where the net utility in Figure 1 of the main text drops below 1×10^{-6}.

In the leftmost column, satiated foragers always cache their harvest. This is true of retrievers as well as foragers despite the fact that $0.1 = g_{[\text{own,recach,kJ}]} < g_{[\text{own,eat,kJ}]} = 0.2$ because caching a seed takes less time than eating it, allowing larger numbers of seeds to be collected. As $g_{[i,\text{eat,kJ}]}$ increases to 1, indicating that eating a seed provides equivalent benefit to establishing a new cache, retrievers begin to consume seeds, but pilferers continue to cache them. Finally, in the rightmost column, hungry pilferers begin to consume seeds as vigilance requirements reduce the number of seeds that they can collect to the point at which the greater utility gain from eating a seed exceeds the efficiency advantage of caching.