Assume a heuristic H is consistent. Let H be at some state **s**, and denote the action of reaching the closest goal node, **g**, by **A**. The conditions for consistency guarantee that H(s) cost(A) + H(g), where cost(A) is the actual cost of action A. But H(g) = 0 so H(s) cost(A). Thus the heuristic will always be less than or equal to the actual cost of reaching the goal, and this is valid for any point s. Therefore, H is admissible.

One example of a heuristic that is admissible but not consistent in the corner problem is a heuristic that computes the Manhattan distance to the closest corner that hasn't been reached yet. This is always less than or equal to the total cost, so the heuristic is admissible. However, it is not consistent when there are multiple unvisited corners. When you are a distance of 1 away from the closest corner, the heuristic evaluates to 1. Then when you move onto the corner, that corner is no longer unvisited so the heuristic evaluates to the distance to one of the remaining unvisited corners, which can be a distance *d* which is greater than 1 away. Thus, the heuristic jumped from 1 to d after a single movement with a cost of 1. Therefore, the heuristic is not admissible.