The original problem is below. Since they all agree with Bob and Dave's statements we know that none of them have red or yellow on their back. Thus each must have either blue or green or orange. In fact 2 of the colors must be used twice since there are at most 2 pieces of each color. So each person who sees exactly one pair of persons with the same color must be part of the second pair. This means that Earl sees two pairs with the same color, thus Earl must be the only person with his color. Since Earl can see both blue and green we know that he does not have these colors on his back. Therefore the piece of paper on his back is orange.

Paper Trail

Al, Bob, Carl, Dave, and Earl walk into a room where an attendant attaches one piece of colored paper to each person's back without the person seeing the paper. The attendant then leaves the room with the remaining paper. The attendant started with 2 red, 2 yellow, 2 blue, 2 green, and 2 orange pieces of paper.

Al says: I can't see the paper on my back but I can see everyone else's paper.

Bob, Carl, Dave, and Earl agree.

Bob says: I can’t see any red paper.

Al, Carl, Dave, and Earl agree.

Carl says: I can see exactly one pair of persons with the same color of paper

Al, Bob, and Dave agree.

Earl disagrees.

Dave says: I can’t see any yellow paper.

Al, Bob, Carl, and Earl agree.

Earl says: I can see both blue and green paper.

Al, Bob, Carl, and Dave agree.

What color is the paper on Earl’s back?