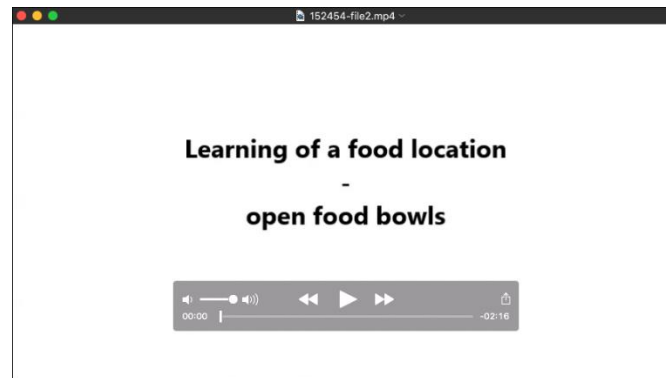


Supplementary material



Movie 1. The video shows the learning and testing phase of a memory test conducted with pigeons raised on a low- or high-quality food treatment. The birds had to learn one out of 18 possible food locations. The pigeon was released into the test area and allowed to feed the food from a randomly chosen open bowl. After a few minutes it was released into the test area again and this time had to remember the food location as all bowls were covered with lids. After 24 hours, the memory test was conducted. Food bowls were covered with lids and the number of lids opened until the bird found the rewarded bowl were counted as errors.

Table S1. Linear mixed model ANOVA for the number of errors made during memory tests of pigeons raised on a post-hatching low- or high-quality diet and for which the learning session occurred either in the morning or evening. Individual identity was a random effect. Model includes the food treatment of the biological parents (pre-hatching food treatment).

R² = 0.47		Testing errors	
Parameter	<i>F</i>	<i>p</i>	
Time of learning (morning or evening)	$F_{1,25.05} = 3.10$	0.09	
Sector (A, B or C)	$F_{2,44.92} = 11.79$	<.0001	
Food treatment (post-hatching)	$F_{1,21.62} = 8.08$	0.01	
Trial N° (first or second)	$F_{1,24.7} = 1.11$	0.32	
Sector * Food treatment (post-hatching)	$F_{2,44.53} = 7.48$	0.002	
Time of learning * Trial N°	$F_{1,20.54} = 3.66$	0.07	
Time of learning * Food treatment (post-hatching) * Trial N°	$F_{1,21.05} = 13.61$	0.001	
Food treatment (pre-hatching)	$F_{1,21.79} = 0.07$	0.79	