Supplementary note on the generalized linear model (GLM) analysis on the merged 4 groups of behavioral data shown in Figure 2C.

To examine if BM preference is associated with imprinting depending on the T3 level, we plotted the individual BM preference score against the imprinting score after merging data obtained from these 4 groups (Figure 2C). We assumed full and null GLM (generalized linear models) as follow. These models had AIC (Akaike Information Criteria) ~ 559.8 (full model) and 552.9 (null model) respectively.

* Full model:

(*BM score*) = α0 +α1\*(*imprinting score*) + α2\*(*T3*) + α3\*(*imprinting score* x *T3*) [AIC = 559.8]

* Null model:

(BM score) = α0 [AIC = 552.9]

Here, the variables in the formula are defined as:

* (*imprinting score*) represents the integer values shown as “imprinting” in Figure 2.
* (*T3*) is LOW for 1-day:IOP and 4-days control, or it is HIGH for 1-day: control and 4-days:T3.
* (*imprinting score* x *T3*) denotes the interaction between the two variables.

Among the all possible combinations, the following two models showed the lowest AIC values. The other models had higher AIC values and not considered here.

1. (*BM score*) = α0 +α3\*(*imprinting score* x *T3*) [AIC=550.9]

Coefficient α3 was significant and the probability that α3 ≤ 0 was lower than *p* = 0.05.

1. (*BM score*) = α0 +α1\*(*imprinting score*) + α3\*(*imprinting score* x *T3*) [AIC = 550.9] Similarly, α1 was significant. On the other hand, α3 was not significant, and the probability that α3 ≤ 0 was higher than *p* = 0.05.

Considering that (*imprinting score*) implicitly includes (*T3*), we conclude that thyroid hormone sensitizes the induction of BM preference in a manner associated with the degree of imprinting.