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"Letter to the Editor"–Memoirs of the Faculty of Science, Kyoto University

February 26, 1969

Dear Sir :

We want to draw your attention to a series of coincidences which came to our attention after reading the recent publication by T. Oishi and M. Kato entitled "Pineal Organ as a Possible Photoreceptor in the Photoperiodic Testicular Response in Japanese Quail", Mem. Faculty of Science, Kyoto Univ. Series Biol. 2 : 12-18, 1968.

We desire to cite pertinent data from two other publications which show

TABLE 1

Reference	Treatment	Photoperiod	Age	Testes wt. (mg) ±S.E.
1	Sham-operated*	LL	95	1352±31
3	None	LL	mature**	1352 ***
1	Sham-operated*	8L-16D	95	421±159
3	None	8L-16D	mature	421 ***
1	Sham-operated*+LC-RIH	8L-16D	95	1005±58
m 3	None+LC-RIH	8L-16D	mature**	1005 ***
1	Sham-operated*+LC-GIH	8L-16D	95	475±97
3	None+LC-GIH	8L-16D	mature**	475 ***
1	None	LL	81	1396±112
2	None	LL	120	1396±112
1	None	LL	95	1328±144
2	None	LL	136	1328±144
1	None	8L-16D	95	152±45
2	None	8L-16D	136	152±45

* Sham-operated for pinealectomy.
** Mature birds + 49 days on experiment.
*** No S.E. given.

Reference 1 - T. Oishi and M. Kato. Pineal organ as a possible photoreceptor in photoperiodic testicular response in Japanese Quail. Mem. of the Faculty of Science, Kyoto Univ., series of Biology **2** : 12-18, 1968.

〃 2 - T. Oishi, T. Konishi and M. Kato. Investigation of photorecepting mechanism to control the gonadal development in Japanese quail. Environ. Cont. in Biol. **3** : 27-30, 1966.

〃 3 - M. Kato, Y. Kato and T. Oishi. Radioluminous paints as activator of photoreceptor systems studied with swallow-tail butterfly and quail. Proc. Japan Academy **43** : 220-223, 1967.

the same mean testes weights and in some cases the same mean ± standard errors. These data are summarized in Table 1.

As one can see, there are no less than seven groups of animals which have testes weights identical to testicular weight reported in previous experiments and with one exception for animals having received similar treatment. In three cases the mean testes weights *and* the standard errors are identical.

One might assume that Oishi and Kato pooled data from experiments previously reported with data obtained in the new experiments. This, of course, would mean that the treatments reported in the most recent publication were not imposed on contemporary groups. However, this assumption proves to be incorrect since in a previous publication (listed in our Table 1) the animals were controls and no statement is made concerning sham-operations, whereas in the most recent publication the animals with identical mean testes weights were sham-pinealectomized.

The lower part of Table 1 which reports 3 sets of identical means and standard errors offers great difficulties also because the ages, which are clearly stated in both publications, differ by 5 to 6 weeks so that no pooling of data can be assumed.

The probability of finding the same means testes weight for two groups of five quail are remote, of finding identical means for several pairs of experimental groups is decidedly smaller, and then of finding identical means and standard errors in several pairs of groups in the same laboratory, treated similarly, but of different ages, is extremely remote. Once in a million would hardly suffice to express the probability of a single such occurrence and once in 10^{18} is perhaps even more of a conservative estimate to attach to this fantastic coincidence.

In our considered opinion it is in the interest of science that a question be raised seeking more information as to the occurrence of these coincidences. The workers who have reported these data may then have the opportunity to explain these two series of highly unlikely events.

Sincerely yours,

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Dear Dr. A. van Tienhoven : Thanks very much for your kind and friendly attentions to the paper published by T. Oishi and M. Kato entitled " Pineal organ

as a possible photoreceptor in the photoperiodic Testicular Response in Japanese Quail", Mem. Faculty of Science, Kyoto Univ. Series Biol. 2 : 12-18, 1968. The authors accepted your attentions with great thanks and found mistakes in the Table 1. On the first 4 sets, first of all, sham-operated is correct, but we neglected to use this representation in the paper (3), because only we wanted to recommend the useful " Radioluminous Paints " for the studies of photobiology in it. Next, 95 or mature should be replaced with 136. On the 3 sets in the lower part of Table 1, same works have to be done as follows, 81 → 120 and 95 → 136. We regret to say that our attentions given to the published paper and our original work-book were not careful. This carless manner was a reason why we had to have thoughtless mistakes. However, we believe these tendencies could be identical with the results, as shown in Table 1, in any age of birds insofar as they reached to the maturation. Thanks very much.

November 27, 1969

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