Results of the experiments

Date	Dis.	Dir.	Tr	n(N)	r	a	Hc	U2 Test IC vs IE IC vs GE IE vs GE
1) 11-9-86	25.0	176°	IC	12(12)	0.92***	209°	0.768***	–
			IE	12(12)	0.78***	229°	0.473**	–
			GE	12(13)	0.89***	196°	0.838***	–
2) 12-9-86	31.0	327°	IC	12(12)	0.81***	259°	0.303	–
			IE	12(12)	0.63**	223°	− 0.150	–
			GE	12(12)	0.86***	233°	− 0.064	–
3) 18-9-86	40.4	161°	IC	12(13)	0.96***	181°	0.906***	*
			IE	12(12)	0.83***	229°	0.316	–
			GE	12(13)	0.72***	180°	0.684**	*
4) 19-9-86	54.6	336°	IC	12(13)	0.91***	312°	0.831***	***
			IE	12(12)	0.87***	207°	− 0.544	*
			GE	12(12)	0.98***	287°	0.640**	***
5) 30-9-86	40.4	161°	IC	12(12)	0.97***	176°	0.939***	***
			IE	12(13)	0.92***	224°	0.411*	–
			GE	12(13)	0.91***	175°	0.887***	***
6) 3-10-86	54.6	336°	IC	12(13)	0.83***	250°	0.064	–
			IE	12(15)	0.63**	254°	0.089	–
			GE	12(12)	0.83***	271°	0.354*	*
7) 7-10-86	105.3	326°	IC	11(14)	0.57*	284°	0.419*	–
			IE	12(12)	0.66**	286°	0.505**	–
			GE	12(13)	0.84***	297°	0.732***	–
8) 10-10-86	51.0	152°	IC	12(14)	0.71**	207°	0.412*	–
			IE	12(14)	0.65**	228°	0.162	–
			GE	12(12)	0.77***	199°	0.522**	–

Dis. = Home distance (km), Dir. = Home direction, Tr = Treatment (IC = Italian controls, IE and GE = Italian and German experimentals, respectively); n and (N) indicate the number of bearings and of birds actually released, respectively; r and a indicate the length and the direction of the mean vector, respectively, Hc = Homeward component. Significance by the Raleigh test (r), by the V test (Hc) and by the Watson U2 test is indicated by asterisks: *, ** and ***, $p < 0.05$, $p < 0.01$ and $p < 0.001$, respectively.

Unfortunately, German untreated controls (GC) were not available. One might speculate that the initial orientation of GE could have been poorer than that of (unavailable) GC. This hypothesis, however, is improbable considering that this hypothetical result would require a group of GC significantly better than IC, whereas it has been shown that German birds raised in Italy behave like local pigeons [12]. The present results indicate that German pigeons, in contrast to Italian ones, are not significantly affected by the magnetic treatment.

This suggests the existence of a genetic difference between the two bird stocks, which had not been revealed in previous experiments in which only untreated German and Italian pigeons, raised in Italy and in Germany, respectively, were compared to local pigeons [12].

1 We are grateful to Dr H. G. Wallraff who kindly supplied the German pigeons used in our experiments and gave useful suggestions.

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Announcements

Hildegard Doerenkamp and Gerhard Zbinden Foundation for Realistic Animal Protection in Scientific Research

Scientific Award 1988

A prize of DM 50000.– will be awarded for outstanding scientific contributions leading to the reduction of animal use in biomedical research. The specific topic for the year 1988 is: "Reduction of animal use in biomedical research by computer modelling."

Preference will be given to applications leading to a reduction of the use of large animals (dogs, cats, monkeys). Research in pharmacokinetics and drug metabolism is included in the topic.

The applications may consist of published or unpublished reports on computer use in all areas of biomedical research, provided that they are directly relevant to the topic of this year's prize.

Computer programs for simulation of animal experiments in teaching and research are also acceptable. No special application forms are required. The jury reserves the right to split the prize among not more than three applicants. Languages: English, German, French.

Deadline for submission is December 31, 1988. Applications should be sent to: Prof. G. Zbinden, Institute of Toxicology, Schorenstraße 16, CH-8603 Schwerzenbach/Switzerland.

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