CAN ANIMALS DETECT WHEN THEIR OWNERS ARE RETURNING HOME? AN EXPERIMENTAL TEST OF THE 'PSYCHIC PET' PHENOMENON[1]

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[1]The authors would like to thank Jaytee, Pam Smart and her family, Rupert Sheldrake and Emma Greening for their co-operation and help with this study. Our thanks also to the Perrott-Warrick Fund for financing these experiments.

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Abstract

In his book, *Seven Experiments That Could Change The World*, Rupert Sheldrake suggested that the public carry out experiments to test whether pets can psychically detect when their owners are returning home. The first of these tests was undertaken by an Austrian television company and involved an owner in the Northwest of England (PS) and her dog (Jaytee). The test appeared remarkably successful and seemed to show Jaytee responding when PS set off to return home from a remote location. Rupert Sheldrake and PS kindly asked the authors if they would like to carry out their own investigation into Jaytee's abilities. This paper outlines various 'normal' explanations that might account for the phenomenon and presents an experimental design that minimised these possibilities. The paper then details the procedure and results of four experiments. Analysis of the data did not support the hypothesis that Jaytee could psychically detect when his owner was returning home. Finally, the paper discusses a possible reason for the difference in results of these studies and those carried out by the Austrian television company.

[2]The authors would like to thank Jaytee, Pam Smart and her family, Rupert Sheldrake and Emma Greening for their co-operation and help with this study. Our thanks also to the Perrott-Warrick Fund for financing these experiments.

Introduction

In his book, *Seven Experiments That Could Change The World*, Rupert Sheldrake (1994) urged the public to carry out experiments that tackle questions that are currently being ignored by the scientific establishment. To illustrate his argument Sheldrake outlined seven simple experiments that could be performed without access to specialist equipment or laboratory space. Each of them examined different types of anomalous phenomena, including, for example, how pigeons home, whether people can detect a distant stare and the possible reality of 'phantom' limbs. Sheldrake noted that these experiments:

> ...would take us far beyond the current frontiers of research. They could reveal much more of the world than science has yet dared to conceive. Any one of them, if successful, would open up bewildering new vistas. Taken together, they could revolutionise our understanding of nature and ourselves. (p. 1).

One of the experiments suggested by Sheldrake (RS) examined whether pets might be using psychic abilities to detect when their owners are returning home. RS stated that many individuals appear to have experienced this phenomenon, but that the evidence to date was purely anecdotal. RS urged the public to run experiments that tested their pets under more controlled conditions.

The first formal test of the 'psychic' pet phenomenon was carried out in November 1994 by an Austrian television company. Taking part in the study was PS (Jaytees owner) and her dog, Jaytee (a five year old terrier cross). PS, who lives with her parents, claimed that her parents had noticed that Jaytee seemed to sense when she started her journey home, and would go and sit in their porch until her return. The Austrian experiment used two film crews. One crew followed PS as she walked around her local town centre (in Ramsbottom, Northwest England). The second crew remained in her parent's house and continuously filmed Jaytee. After a few hours the crew accompanying PS decided to return home. At that moment Jaytee went to the porch area and remained there until PS arrived back. The results of the experiment received considerable attention from the media (e.g., Matthews, 1995).

In early 1995 RS kindly asked the first author if he would like to help investigate Jaytee's abilities. This paper describes four experiments carried out by the authors.

Possible normal explanations for the 'psychic pet' phenomenon

This section outlines possible normal explanations for the 'psychic pet' phenomenon and details the types of controls needed to minimise their occurrence during an experiment.

Responding to routine

Some pets may have learnt that their owners tend to return home at certain times on certain days. Any experiment should safeguard against this possibility by having the owner leave for home at a randomly selected time.

Sensory cueing from owner

Some pets might be able to pick up subtle sensory cues (e.g., visually, acoustically or by smell) from their returning owner. This problem can be overcome by having the owner return from a location which is sufficiently far away to eliminate such cues.

Sensory cueing from people remaining with the pet

Pets might also pick up subtle cues from other individuals who are aware of the time that their owner expects to return. To safeguard against this, no one who remains with the pet should know when the owner will return.

Selective memory

Some pets might carry out their 'signalling' behaviour at several different times during the day. The people with them might tend to selectively remember the one signal that corresponded with the owner's return and forget the incorrect ones. Any properly controlled experiment should overcome this problem by making a complete and accurate recording of the pet's behaviour.

Multiple guesses

Some pets might carry out a wide variety of behaviours (e.g., going to the window, going to the door, laying on a doorstep) throughout the day and people with them might choose which behaviour 'signalled' the owner's return *after* the owner has come home. To prevent this, the behaviour that the pet is claimed to make when it signals the owner's return should be clearly stated before the start of an experiment. Likewise, some owners may have a variety of possible times to which their pets might respond (the time they thought of going home, the time they set off, the time they started their car etc.) and choose a relevant instance once they discover the time that their pet 'signalled' their return. To prevent this, the owner's behaviour

or intention that allegedly causes the pet to signal their return should also be clearly determined before the start of the experiment.

Misremembering

The person remaining with the pet may misremember when the pet made its signal behaviour such that the inaccurate memory matches the time at which the owner set off to return home. Similarily, some owners may forget exactly when they started to return home and misremember their departure time to match when their pet's signalling behaviour occurred. To prevent this, both owner and pet should be carefully monitored during the experiment to determine exactly when they carried out the relevant behaviours.

Selective matching

Animal behaviour is often very ambiguous and open to interpretation. It is thus possible that people attempting to judge when a pet made the appropriate 'signalling' behaviour might be biased if they are aware of the time at which the owner started to return home. For this reason anyone attempting to judge the record of the pet's behaviour and decide when (s)he made the appropriate signal was made should not know when the owner started to return home.

Initial experimental design

The authors worked with PS and RS to construct an experimental procedure that minimised each of the problems outlined above. This procedure was employed in the first two experiments and slightly modified in the third and fourth.

The authors first set a maximum length for each experiment (e.g., three hours) which was then be broken down into a number of trials (e.g., eighteen trials, each lasting ten minutes).

Before the start of each experiment the experimenters synchronised their watches with each another and with the clocks within the two videocameras being used in the study. Approximately thirty minutes before the start of the experiment PS and the second author (MS) left PS's parent's home (referred to as 'home') and drive to a remote location. Each location was between fifteen and thirty minutes' drive away from home, thus minimising the possibility of Jaytee sensing the first ten minutes of PS's return journey by any normal channels of communication. In addition, because it seemed possible that Jaytee might have learnt to associate the sound of PS's car with her return, and that he might be able to detect

sounds made by the car over very long distances, MS and PS traveled to and from the remote location in the authors' car.

Once at the remote location and shortly before the start of the experimental session, MS accessed the random number generator on a calculator (Casio fx-120) to select one of the trials. The time at which the selected trial started constituted the time at which MS and PS left the remote location and started to return home. PS noted that she was uncertain whether it was her intention to leave or actual leaving behaviour that caused Jaytee to react. For this reason we agreed that there would only be a few seconds' gap between PS finding out that she had to return home and her starting her journey. MS videoed PS from the moment they left the remote location (using a video camera that stamped the time on the video tape) to ensure that her leaving time was properly recorded.

RW remained at PS's home with PS's parents and none were aware of the time at which PS intended to return.

Throughout the experiment Jaytee's behaviour was continuously videotaped by RW, providing a complete and accurate record of his behaviour during the study. PS stated that Jaytee signalled her return by going to a glass porch at home. PS also noted that Jaytee might go to the porch for another reason, such as seeing a cat outside, but that his actual 'signal' would be obvious as there would be no other reason for him going to the porch.

After each experiment had been completed, a judge (who was blind to the time at which PS left the remote location) watched the videotape of Jaytee and noted the time at which he first 'signalled' that PS was returning home. The experiment was considered a success if Jaytee's signal occurred during the ten minute block randomly selected by MS.

The following schedule illustrates how this experimental protocol might work in practice:
1) The experimenters decide that the experimental session will be three hours long, run between 14.00-17.00 and consist of eighteen ten minute trials.
2) At 13.30, MS and PS leave home and travel to a remote location.
3) At the remote location, MS randomly selects a number between 1 and 18 (e.g., 6) which corresponds to the time at which PS and MS are to start to return home (14.50).

4) RW continuously films Jaytee's behaviour from the start of the experimental session (14.00) until PS and MS return (at approximately 15.30).
5) At the chosen time, MS tells PS that it is time to return home and they begin their journey.
6) A blind judge reviews the videotape and of Jaytee decides at what time Jaytee first 'signalled' PS's return.
7) The experiment is considered successful if Jaytee's reaction occurred within the selected time block (i.e., between 14.50 and 14.59).

Experiment One (12th June 1995)

The experiment was scheduled to last a maximum of three hours (19.10 to 22.10) and was split into eighteen trials, each lasting ten minutes. At approximately 18.30 MS and PS left home and drove to a public house on the outskirts of Bolton, approximately 8 miles from PS's home. MS randomly selected the number 12, which corresponded to a leaving time of 21.00.

Results

Table 1 shows all of the times that Jaytee visited the porch during the test, the length of each visit and possible cause of his visit.

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Table 1 here

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Table 1 shows that Jaytee made 13 trips to the porch during the experimental session. PS and MS left the remote location at 21.00 and so, to be successful, Jaytee had to respond between 21.00 and 21.09. In fact, the first occasion on which Jaytee inexplicably visited the porch occurred at 19.57. As a result, the experiment was considered unsuccessful.

When reviewing RW's videotape PS correctly remarked that Jaytee only stayed at the porch for a fairly brief period of time during his 19.57 visit (53 seconds) and that a better indicator of his signal might be him remaining there for a longer period of time. There were three occasions when Jaytee stayed at the porch for more than 2 minutes (20.09, 20.58, 21.04) and two of these were close to the departure time of 21.00. For this reason the authors decided that any future study should not take the *first* time that he inexplicably went to the porch as his 'signal' but instead, the first time that he inexplicably visited the porch *for more than two*

minutes . In addition, PS noted that there were many distractions outside the porch and these may have caused Jaytee to pay an unusually high number of visits to the porch, resulting in some unusually 'noisy' data. It was hoped that this problem could be minimised by running the next experiment in the afternoon rather than early evening.

Experiment Two (13th June, 1995)

This second experiment differed from the first experiment in three ways. First, the authors were concerned that Jaytee might now associate the sound of their car with PS's return and so arranged to have MS and PS leave in the authors' car but return by taxi. Second, Jaytee's signal was to be considered to be the first time that he inexplicably visited the porch for more than two minutes. Third, the experiment was run during the afternoon rather than early evening. The experimental session was scheduled to last a maximum of three hours (12.48 to 15.48) and was split into eighteen trials, each lasting ten minutes. At approximately 12.15 MS and PS drove to Bury town centre, approximately 5.5 miles from PS's home. MS randomly selected the number 10, which corresponded to a return time of 14.18.

Results

Table 2 shows that Jaytee made 12 trips to the porch during the experimental session. PS and MS left the remote location at 14.18 and so to be successful, Jaytee needed to respond between 14.18 and 14.27. In fact, the first occasion on which Jaytee inexplicably visited the porch and for more than 2 minutes occurred at 13.59. As a result, Experiment Two was also considered unsuccessful.

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When watching RW's videotape PS remarked that Jaytee may have been disrupted by the local fish van arriving at almost exactly the same time as she left the remote location. In addition, PS noted that the many distractions outside the porch had again caused Jaytee to provide 'noisy' data. Because of these problems the authors agreed to abort the studies until the winter, in the hope that there would be fewer distractions outside the house then and that Jaytee would be better able to concentrate on signalling PS's return.

Experiment Three (4th December 1995)

This experiment differed from the previous ones in several ways. First, because the time available for the study was limited, the experiment lasted only two hours (20.30 to 22.30) and consisted of twenty trials, each lasting six minutes. Second, the return time was located in the middle, rather than at the start, of the trial (i.e., if a trial ran between 21.00 and 21.06 the return time would be 20.03). This allowed for the possibility of Jaytee responding slightly before PS started to return home. Third, MS and PS returned from the remote location in the authors' car as it seemed unlikely that Jaytee would be able to associate PS's return with the sound of a car that he had heard six months before. Fourth, the randomisation procedure was carried out by the third author (JM), who was located away from the remote site and could thus use a more sophisticated procedure. This method involved flipping a coin five times (heads = 1, tails = 0) to generate a five-digit binary number that was then translated into base ten. This number was used to select a row (0 to 31) on page 1 of the Rand Corporation (1955) random number tables. The 50 digits in the row were treated as 25 two-digit numbers and JM read along the row until she discovered one in the range of 01 to 20. This was the target number.

At approximately 19.00 MS and PS left home and drove to a public house near the centre of Bury (approximately 5.5 miles from PS's home). MS then telephoned JM who had randomly selected the number 12, which corresponded to a leaving time of 21.39.

Results

Table 3 shows that Jaytee made 4 separate trips to the porch during the experimental session. PS and MS left the remote location at 21.39 and so, to be successful, Jaytee needed to respond between 21.36 and 21.42. In fact, the first occasion on which Jaytee inexplicably visited the porch for more than 2 minutes occurred at 21.31. As a result, the experiment was considered unsuccessful. However, when watching RW's videotape PS remarked that the trial was more successful than the previous two trials as Jaytee was at the porch throughout her journey home.

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Table 3 here

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Experiment Four (5th December, 1995)

This experiment differed from the previous one in two ways. First, the experiment took place at PS's sister's home, rather than at that of her parents. PS pointed out that in this house Jaytee would visit the window, rather than the porch area, to 'signal' her return. Second, the experimental session lasted three hours (9.45 to 12.45) and consisted of eighteen trials, each lasting ten minutes. In all other ways the study was identical to the previous experiment (i.e., the return time was located in the middle of the trial, the same randomisation process was used and MS and PS returned in the authors' car).

At approximately 8.45 MS and PS left home and drove to the centre of Bolton (approximately 11 miles from PS's sister's home). MS then telephoned JM who had randomly selected the number 7, which corresponded to a leaving time of 10.45.

Results

Table 4 shows that Jaytee made 8 separate trips to the window during the experimental session. PS and MS left the remote location at 10.45 and so Jaytee needed to respond between 10.40 and 10.50. In fact, there was no occasion on which Jaytee inexplicably visited the window for more than 2 minutes and so this experiment cannot be considered a success.

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Table 4 here

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However, the first time at which Jaytee went to the window for no apparent reason was within the target trial (10.44) and the videotape showed that he may have had to leave the window because he felt ill; he promptly went to the garden and vomitted. After the trial PS noted that JT does not normally signal his response by staying at the window in her sister's house, in part because he has to balance on the back of a sofa to look out of the window. This observation was also made by PS's sister when she was talking to RW during the trial but is inconsistent with Jaytee having remained at the window for two lengthy periods of 300 and 210 seconds during the experiment.

Discussion

This paper has described four experiments designed to test the 'psychic pet' phenomenon. In all four experiments Jaytee failed to accurately detect when PS set off to return home.

There is a striking difference between the results of these experiments and those of the study (described earlier) carried out by the Austrian television company. The frequency of Jaytee's visits to the porch during our experiments suggests that the Austrian test can only be properly evaluated by examining the footage of Jaytee's behaviour prior to PS's return. Sheldake (1997), after several attempt to obtain this footage from the company, was recently informed that it has been lost and so such an evaluation is not possible.

What is clear from our experiments is that the mechanisms that we discussed earlier in the paper by which a pet might appear to be psychic without actually being so are quite plausible and that without safeguards to rule them out, a more informal study than ours could lead to a false conclusion. We recommend that any future investigations into the 'psychic pet' phenomenon take similar precautions.

References

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Time	Duration of visit (in seconds)	Possible reason
19.24	57	Car pulls up
19.30	38	Person walks past
19.41	51	People outside
19.57	**53**	**No obvious reason**
20.09	134	No obvious reason
20.37	27	Two dogs walk past
20.38	37	Watching other dogs
20.58	221	Car pulls up, dog walks past, car leaves
21.04	394	Car pulls up
21.15	15	No obvious reason
21.16	76	Car passes window
21.17	10	People walk by window
21.20	40	PS and MS return

Table 1: Times that Jaytee visited the porch during the test, the length of each visit and possible cause of visit for Experiment One. Time of Jaytee's signal shown in bold.

Time	Duration of visit (in seconds)	Possible reason for visit
13.06	52	No obvious reason
13.14	20	No obvious reason
13.19	44	Car pulls away from window
13.40	46	Woman leaves car
13.52	41	Person walks past window
13.59	**140**	**No obvious reason**
14.08	140	Car pulls away
14.15	8	No obvious reason
14.16	169	Fish delivery van outside window
14.20	70	PS's father returns from fish van

14.24	205	Woman walks past, car pulls away from window
14.29	89	PS and MS return

Table 2 : Times that Jaytee visited the porch during the test, the length of each visit and possible cause of visit for Experiment Two. Time of Jaytee's signal shown in bold.

Time	**Duration of visit (in seconds)**	**Possible reason for visit**
21.02	27	No obvious reason
21.06	87	No obvious reason
21.31	**633**	**No obvious reason**
21.42	600	No obvious reason

Table 3: Times that Jaytee visited the porch during the test, the length of each visit and possible cause of visit for Experiment Three. Time of Jaytee's signal shown in bold.

Time	**Duration of visit (in seconds)**	**Possible reason for visit**
10.12	300	Car outside house
10.18	20	Van outside house
10.19	94	Postman arrives
10.30	210	Car arrives outside house
10.44	10	No obvious reason (Jaytee then leaves window and is sick)
10.55	113	Dustbin men arrive in street
10.57	20	Dustmen arrive outside house
11.11	30	PS and MS arrive home

Table 4: Times that Jaytee visited the window during the test, the length of each visit and possible cause of visit for Experiment Four.