



In cases where households had both dogs and cats, they were included in the totals for both dog and cat owners, as shown in Tables 1 to 4, and their replies referring to their dogs or cats were tabulated accordingly. If their reply referred only to their dog or to their cat, the other animal was assigned to the 'no' category for question 3 and 'don't know' category for questions 5 to 7.

Statistical analysis was carried out using 2 x 2 contingency tables and the chi-squared test (Campbell, 1989). Probability values for two-tailed tests were used.

## RESULTS

### Pet Ownership

Out of 200 households surveyed, 132 (66%) had pets, a somewhat higher percentage than the U.S. national average of 58% (Jaegermann, 1992). Cats were the most common pet, followed by dogs. The figures were as follows:-

Cats	83	Horses	2
Dogs	69	Chickens	2
Birds (excl. chickens)	7	Rats	2
Rabbits	6	Hamster	1
Fish	6	Snake	1
Lizards	3		

Most of these households had one kind of pet: 49 had cats only, and 34 had dogs only; 28 had both dogs and cats, and 5 of these had other pets as well; 6 had cats and other pets (excluding dogs); 2 had dogs and other pets; 9 had only other pets.

These Santa Cruz households were unusual in that more had cats than dogs, whereas both nationally and in the state of California more households have dogs than cats. A slightly lower proportion of households had dogs (35%) than the U.S. national average of 37% (Jaegerman, 1992) and a higher proportion had cats (42%) than the national average of 31% (Jaegerman, 1992).

Table 1

### Replies to Questions 3 and 4

Have you or anyone in your household ever noticed your pet getting agitated before a family member has arrived home?

Numbers (and percentages) of dogs or cats

	Total	Yes	No
Dogs	69	31 (45%)	38 (55%)
Cats	83	26 (31%)	57 (69%)

How long before you/they arrive is your pet agitated?

Numbers (and percentages) of dogs or cats

	Total	0-5min	5-10min	10-20min	20+ min	Don't know
Dogs	31	15 (48%)	7 (23%)	5 (16%)	1 (3%)	3 (10%)
Cats	26	8 (31%)	3 (11%)	3 (11%)	3 (11%)	9 (35%)

### Dogs and Cats that Seem to Anticipate the Arrival of a Member of the Household

The majority of animals that appeared to anticipate their owner's arrival were dogs and cats, but there were three bird-owners in the study who claimed that their birds displayed such anticipatory behaviour. Data for dogs and cats in reply to Questions 3 and 4 are shown in Table 1.

A higher proportion of dogs than cats appear to anticipate arrivals. In this survey the figures were 45% and 31% respectively, but this difference was not statistically significant.

48% of the dog owners and 31% of the cat owners who reported that their pets anticipated arrivals said that the behaviour occurred less than five minutes beforehand. 19% of dog owners and 22% of cat owners who reported this phenomenon said that it occurred more than ten minutes before the household members' arrival.

The birds in the survey said to anticipate a household member's arrival were a parrot, parakeet and cockatoo. The cockatoo was said to respond between 5 and 10 minutes in advance, while the other two birds responded less than 5 minutes before the arrival.

### Pets that Seem to Respond to their Owners' Thoughts and Intentions

Many pet owners report that their animals seem to know when they are going out before they show any physical signs of doing so. Some also claim that their pets can actually respond directly to their thoughts or silent intentions (Sheldrake & Smart, 1997). Some refer to this type of communication as a form of 'telepathy', and some attribute it to a 'sixth sense'. Questions 5, 6 and 7 were asked to find out how common these impressions are, and the results are summarized in Table 2.

Table 2

### Replies to Questions 5, 6 and 7

Would you agree or disagree that your pet knows you are going out before you show any physical signs of doing so?

Numbers (and percentages) of pets

	Total	Agree	Disagree	Don't Know
Dogs	69	45 (65%)	10 (15%)	14 (20%)
Cats	83	31 (37%)	15 (18%)	37 (45%)

Would you agree or disagree that your pet responds to your own thoughts or silent commands?

Numbers (and percentages) of pets

	Total	Agree	Disagree	Don't Know
Dogs	69	32 (46%)	11 (16%)	26 (38%)
Cats	83	34 (41%)	12 (14%)	37 (45%)

**Would you agree or disagree that your pet is sometimes telepathic with you?**

Numbers (and percentages) of pets

	Total	Agree	Disagree	Don't Know
Dogs	69	29 (42%)	20 (29%)	20 (29%)
Cats	83	28 (34%)	16 (19%)	39 (47%)

Dog owners agreed more than cat owners (65% and 37% respectively) that their pet knows that they are going out before they show any physical signs of doing so. This difference was significant ( $p < 0.001$ ).

More dog than cat owners (46% and 41% respectively) agreed that their pet responds to their own thoughts or silent commands, and more dog than cat owners also believed that their pet is sometimes telepathic with them (42% and 34% respectively). In neither of these cases were the differences between dogs and cats significant statistically.

One rat owner thought the rat was telepathic with him, and three bird owners thought that their birds responded to their thoughts: these birds were a parakeet, a canary and finches.

*Telepathic Connections with Pets in the Past*

Both pet owners and non-pet-owners were asked about telepathy with pets they have known in the past, and the results are summarized in Table 3. 49% of current pet owners and 31% of non-pet-owners said that they had known pets in the past that they considered to be telepathic. This difference was statistically significant ( $p < 0.02$ ).

Table 3  
Replies to Questions 8 and 9

**Would you agree or disagree that any of the pets you have known in the past were telepathic?**

Numbers (and percentages) of people

	Total	Agree	Disagree	Don't Know
Pets now	132	65 (49%)	29 (22%)	38 (29%)
No pets now	68	21 (31%)	7 (10%)	40 (59%)

**How frequently have you yourself had what you would consider to be a psychic experience?**

Numbers (and percentages) of people

	Total	Frequently	Sometimes	Never
All pet owners	132	12 (9%)	72 (55%)	48 (36%)
Dog owners	69	6 (9%)	37 (54%)	26 (38%)
Cat owners	83	7 (8%)	49 (59%)	27 (33%)
Non-pet-owners	68	6 (9%)	21 (31%)	41 (60%)

*The Respondents' Own Psychic Experience*

More than half (56%) the respondents said that they had had what they consider to be a psychic experience at some point in their lives (Table 3).

Slightly more cat than dog owners claimed to have had a psychic experience (67% and 63% respectively), but this difference was not significant statistically.

However, there was a very significant difference ( $p = 0.005$ ) between pet owners and non-pet-owners. Considerably more pet owners claimed to have had psychic experiences themselves than non-pet-owners, 64% as opposed to 40%.

In order to investigate further the significantly lower incidence of psychic experience among non-pet-owners, D.B. telephoned the same non-pet-owners again in November 1997, a year after the main survey was conducted, to ask if they had ever kept pets in the past. He was able to reach 54 out of the 68 non-pet-owners originally surveyed. Out of these, 41 (76%) said they had previously owned a cat or a dog, and of these 41, 17 (41%) were psychic. Of the 13 who had never owned a dog or cat, 4 (31%) were psychic. However, this difference was not statistically significant.

Table 4  
Comparison of the Responses of Psychic and Non-psychic Pet Owners to Questions 3, 5, 6, 7 and 8 about their Dogs or Cats

Numbers (and percentages) of people giving positive responses, and the statistical significance of differences between psychic and non-psychic owners.

	Psychic	Non-Psychic	Significance (p)
<b>A. DOGS</b>			
Totals	43	26	
Know when arriving	23 (53%)	8 (31%)	NS
Know when leaving	29 (67%)	16 (62%)	NS
Silent commands	23 (53%)	9 (35%)	NS
Telepathy	20 (47%)	9 (35%)	NS
Telepathy: past pets	25 (58%)	10 (38%)	NS
<b>B. CATS</b>			
Totals	56	27	
Know when arriving	18 (32%)	8 (30%)	NS
Know when leaving	22 (39%)	9 (33%)	NS
Silent commands	28 (50%)	6 (22%)	< 0.02
Telepathy	23 (41%)	5 (19%)	< 0.05
Telepathy: past pets	34 (61%)	9 (33%)	< 0.03

*Differences Between Psychic and Non-Psychic Owners' Responses*

We compared the answers about their pets given by dog and cat owners who said they had themselves had psychic experiences frequently or sometimes

('psychic owners') with the answers given by owners who said they had never had psychic experiences ('non-psychic owners'). For all questions, a higher proportion of psychic owners gave positive responses than non-psychic owners (Table 4). Although in most cases these differences were not statistically significant, when the combined data for dog and cat owners were analysed, the differences between psychic and non-psychic owners were statistically significant for questions 6, 7 and 8, relating to silent commands ( $p < 0.005$ ), telepathy ( $p < 0.03$ ) and telepathy with past pets ( $p < 0.03$ ), but not for questions 3 and 5, relating to the anticipation of arrivals and departures.

#### *Differences Between Male and Female Respondents*

We compared the proportions of men and women who gave positive answers to the questions about their pets and themselves (Table 5). The greatest difference was in relation to telepathy with their pet, with 46% of women and 31% of men agreeing that their pet was sometimes telepathic with them. And 47% of women said they had sometimes or frequently had a psychic experience, compared with 35% of men. More men than women agreed that their pet anticipated their going out, 64% as opposed to 51%. But none of these differences was statistically significant at the  $p = 0.05$  level of probability.

Table 5

#### *Comparison of Male and Female Respondents*

Questions 3, 5, 6 and 7 were applicable only to current pet owners, but all respondents were asked Questions 8 and 9.

Numbers (and percentages) of people giving positive responses.

	Male	Female
Total numbers in survey	66	134
Total with pets	45 (68%)	87 (65%)
<i>Pet owners</i>		
Know when arriving	18 (40%)	39 (45%)
Know when leaving	29 (64%)	45 (52%)
Silent commands	20 (44%)	39 (45%)
Telepathy	14 (31%)	40 (46%)
<i>All respondents</i>		
Telepathy: past pets	23 (35%)	63 (38%)
Own psychic experience	31 (47%)	80 (60%)

## DISCUSSION

### *Comparison with the Survey in Greater Manchester*

This survey complements a previous study carried out in North-West England, at Ramsbottom, Greater Manchester (Sheldrake & Smart, 1997). The results of the two surveys are in remarkably good agreement.

Practically all the claims of unusual perceptiveness concerned dogs and cats. In both surveys a higher proportion of dogs than cats were said to anticipate the arrival of a member of the household. The percentage of dogs said to show this behaviour was almost identical: 46% in Ramsbottom and 45% in Santa Cruz. In Ramsbottom, only 14% of the cats were said to anticipate the return of a member of the household, whereas in Santa Cruz 31% were said to do so. This difference between the two locations was statistically significant ( $p = 0.01$ ).

The pattern of response to arrivals was very similar on both sides of the Atlantic. In Ramsbottom, the proportion of dogs said to anticipate the arrival of a member of the household 10 minutes or more in advance was 16%, compared with 19% in Santa Cruz. For cats these figures were 23% and 22% respectively. In both Ramsbottom and Santa Cruz, the only other animals said to show this anticipatory behaviour were birds: in Ramsbottom a cockatiel, and in Santa Cruz a parrot, a parakeet and a cockatoo.

There was also a remarkable similarity in the responses to the question "Would you agree or disagree that your pet knows you are going out before you show any physical signs of doing so?". In Ramsbottom 69% of dog owners agreed, and in Santa Cruz 65%. The proportion of cat owners that agreed was significantly lower in both locations: 32% in Ramsbottom and 37% in Santa Cruz.

In both Ramsbottom and Santa Cruz a higher proportion of dogs than cats were said to respond to their owners' thoughts or silent commands and to be telepathic with their owners.

In Ramsbottom and in Santa Cruz, around half the current pet owners said that some of the pets they had known in the past were telepathic (53% and 49% respectively). But more non-pet-owners in Ramsbottom than in California said that pets they had known in the past were telepathic (55% as opposed to 31%).

In Santa Cruz a higher proportion of pet owners claimed to have had a psychic experience themselves than in Ramsbottom (64% compared with 54%). The Santa Cruz figures are in general agreement with other random surveys of American adults, according to which between 60% (Haraldsson, 1985) and 75% (Gallup and Newport, 1991) claim to have had psychic experiences.

In Ramsbottom significantly more dog than cat owners claimed to have psychic experiences themselves. By contrast, in Santa Cruz more cat than dog owners claimed to have had such experiences, although this difference was not significant statistically.

In both surveys the proportion of households with dogs was similar: 35% in Santa Cruz and 31% in Ramsbottom. However, the proportion of households with cats was far higher in Santa Cruz, 42% compared with 24% in Ramsbottom.

### *Comparison of Cats and Dogs*

In both surveys, dogs were reported to be more sensitive or responsive to their owner's departures and arrivals than cats. This is in general agreement with the fact that dog owners tend to have closer relationships with their pets than cat owners (e.g. Albert & Anderson, 1997), and cats tend to be less sociable

and more independent than dogs (Hart, 1995). Likewise, in both surveys dogs were said to be more responsive than cats to their owners' thoughts and silent commands than cats, and also to be more telepathic with their owners.

### *Pet Ownership and Psychic Experience*

One of the most surprising features of this survey was the large difference between what pet owners and non-pet-owners said about their own psychic experience. 64% of pet owners said they had had psychical experiences themselves; whereas only 40% of people without pets said so. This difference was statistically significant at the  $p = 0.005$  level.

There was a similar but less pronounced pattern among non-pet-owners: 17 out of 41 (41%) of those who had kept pets in the past were psychic, compared with 4 out of 13 (31%) who had never kept pets. This difference was not statistically significant.

Why should pet owners appear to be more psychic than non-pet-owners? Here are three possibilities:-

1 Living with animals can bring out a psychic awareness in people, an awareness that might otherwise be latent or unrecognized.

2 People who think of themselves as psychic are more likely to keep pets.

3 This difference may not be real, but an artefact of the surveying process. Perhaps pet and non-pet-owners think of themselves as psychic to about the same extent, but the way the question was asked in this survey may have put off non-pet-owners from admitting it. This could have happened because pet owners were asked this question after answering a series of questions about their pets. This may have made them more open to answering a personal question. Non-pet-owners, by contrast, were asked about their own psychic experience much sooner, and may have been less prepared to speak about such a personal matter to a stranger.

Some light is shed on this possibility by the results of another survey recently carried out in London, where there was practically no difference between the replies of pet owners and non-pet-owners: 39% of pet owners said they had had a psychical experience themselves, compared with 38% of non-pet-owners (Sheldrake, Turney and Lawlor, 1998). This shows that argument 3 is not very strong, because in London pet and non-pet-owners seemed equally prepared (or unprepared) to affirm that they had had psychical experiences, in spite of the presence or absence of preceding questions about present pets.

Although the London data did not confirm the difference found in Santa Cruz between current pet owners and non-pet-owners in their psychic experience, they showed a striking difference between non-pet-owners who had kept pets in the past and those who had never kept pets. Those who had never kept pets were significantly less psychic than those who had. A similar, but less pronounced, pattern was found in Santa Cruz.

If further research reveals that there are indeed differences in psychic experience between people who have kept pets compared with those who have not, then it will be important to devise ways of distinguishing between possibilities 1 and 2 above.

### *The Reliability of People's Reports*

All surveys raise questions of reliability. In this study a possible source of bias may stem from a tendency for pet owners to exaggerate their pets' abilities, owing to their emotional attachment to their animals. Conversely, people who pay relatively little attention to their animals may not observe them closely enough to be aware of their responses.

Interestingly, as in Ramsbottom, a higher proportion of psychic pet owners claimed that their pets were psychic than non-psychic owners (Table 4). The owners' own experience and beliefs about psychic phenomena could well have biased their observations and responses, with psychic owners tending to exaggerate their pets' psychic powers and non-psychic owners tending to disregard them. Nevertheless, a considerable proportion of non-psychic owners reported that their pets were uncannily perceptive, with 31% claiming that their dogs anticipated the return of a member of the household, and 35% claiming that their dogs were sometimes telepathic with them.

We do not know how much these and other forms of bias influenced our data. What is evident, however, is that many pet owners report that their animals appear to possess seemingly unexplained abilities.

### *The Need for Experimental Investigations*

The results of this survey do not necessarily imply the existence of a 'sixth sense' or psychic abilities in animals. But they certainly show that many pet owners believe that their animals show such abilities, and the results are suggestive enough to justify further research. Some of the seemingly mysterious phenomena discussed in this paper may ultimately be explicable in terms of the impressive sensory range of cats and dogs, combined with subtle cues of which their owners are unaware. However, some of their perceptive behaviour may be due to influences at present unknown to science. Experimental investigations are needed to tease apart these possibilities.

In the case of a dog that appears to anticipate his owner's arrival, preliminary experiments have already shown that this response does not seem to be explicable in terms of routine, the sounds of familiar vehicles or other auditory cues, or knowledge by the people at home when the owner will return (Sheldrake & Smart, 1998). These investigations are continuing.

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