

What the animals have to say: Conceptual frameworks, commonalities and tensions in professional Animal Psi research and lay animal psychic communication.

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Abstract

This paper examines themes in professional parapsychological animal psi (anpsi) research, early lay observers of animal behaviour (such as Edmund Selous) and the modern lay field of animal communication. Examining the discourse, metaphors and theories offered by these quite different perspectives permits some reflexivity on professional anpsi research in comparison to common sense approaches to animal psi. In comparing these domains a number of assumptions, orienting and generative metaphors are identified which allow some assessment of conceptual frameworks behind these attempts to understand animal psi. We examine the controversial nature of anecdotal evidence, the way anpsi is constructed including the use of evolutionary theory, the metaphors and models proposed. We also consider the practicalities of animal research, the process of relating to animals, and the role of debate and rhetoric in anpsi work.

Introduction

The findings of research into parapsychological phenomena such as extrasensory perception have remained controversial (Alcock, 1981, 2003), furiously debated and often met with staunch opposition and sometimes pure prejudice (Hebb, 1951). Critical comment and dialogue have occasionally shaped experimental research (Honorton, 1985; Hyman, 1985) but more characteristically, mainstream scientific acceptance of findings has been resistant. Very rarely, the mainstream offers what it considers as a pivotal study (Moulton & Kosslyn, 2008) to end any consideration of the issue and to confirm that psi does not exist. Parapsychologists have as a consequence sought paradigms in which to gather compelling evidence for psi (Parker & Brusewitz, 2003), aiming to maximize effects, identify facilitators and inhibitors of psi, reduce criticisms of bias and increase generalisability. As a consequence of this concern for methodological rigour it can be argued that parapsychology, aside from pursuing its own objectives, and in spite of its lack of acceptance, has provided methodological benefits for its mainstream sister discipline psychology (Watt, 2005).

The choice of research paradigms that a discipline allies itself with (particularly those with links to mainstream research areas) can be viewed as offering practical advantages as well as at the same

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time providing a measure of orthodox respectability for those disciplines still seen as somewhat on the “fringe”. Animal psi has provided such a domain in which to conduct research, drawing on mainstream understanding of animal behaviour, such as evolutionary theory. Although parapsychological work carried out in such a setting can achieve a veneer of respectability, in general, scientific acceptance of psi has remained marginal at best; on the other hand, public acceptance of parapsychological experiences remains at a high level (Happs, 1999), as evidenced, for instance, by the high number of lay publications on animal communication. Examining the differences between these perspectives provides insights into what is acceptable as an orthodox scientific approach and what this has to omit because of the framework in which it exists.

Parapsychology has developed with an explicit concern for an empirical approach and has for the most part become an experimental discipline. Like most scientific and social scientific disciplines it has borrowed methodological approaches from the natural sciences. From the perspective of the history and philosophy of science this might be seen as an indication of a maturing discipline and would constitute an obvious progression in terms of dealing with a controversial topic by minimising bias and subjective assessment. At the same time, from a more rhetorical view of science (see Gross, 1996) this might also be seen as a way for parapsychology to acquire respectability, much in the way that psychology followed the same path in attempting to attain status and prestige as a science, rather than as simply a social science (Danziger, 1994). According to Gross (1996) rhetoric is inevitably bound up in any scientific endeavour. The so-called “brute facts” of science mean nothing in themselves—the meaning is communicated by scientific discourse and this will at times involve rhetoric (Gross, 1996). In establishing any field, a good deal of rhetoric abounds; for instance, see Soyland (1994) on the rhetoric in psychology. In parapsychology, as Honorton (1993) found, the rhetoric of skeptics provides contradictory accounts of the relevance and achievements of parapsychology. Skeptics have often claimed that no progress has been made in replication of key studies but admit that in recent times the findings of parapsychology have reached the position where closer scrutiny and explanation is required. As Zingrone (2002) notes, organized skepticism, rather than providing open-minded questioning, has been more about reified belief and dogmatism that: “...amounts to faith in a particular mechanistic, reductionistic, compartmentalized worldview” p.5. This seems to be an extension of the kind of split in the sciences that Giddens (1986) has discussed. The natural sciences employ a technological relation to the world of “independently constituted phenomena”, while social sciences rely on observations of actors situated in much more variable contexts. This, if true, makes it difficult to discuss psi since, if it exists, it does not seem likely to fit into the kind of highly

categorized and more objectivistic framework characteristic of the natural sciences. However, parapsychologists working within this paradigm, more than not, adopt methods and approaches that are informed by the accepted objectivistic framework. The rationale for examining psi in nonhuman species seem obvious in this respect. From this perspective, there are clear benefits in an approach which permits the reduction of subjective bias and demand characteristics by using animals as participants. Also, evolutionary theory provides a respectable context for the generation of hypotheses and interpretation and in addition natural behaviours provide a salient locus for the operationalisation of simple variables.

There are obvious advantages in animal psi research for parapsychologists from the perspective of data collection, analysis and interpretation. From a lay perspective there has also been longstanding interest in anpsi, where animal abilities such as homing have often been hypothesized to have a paranormal basis. More recently, a range of animal communicators (e.g. Baumann Brunke, 2002; Smith 2004) have provided a different voice on phenomena that is interpreted as something akin to anpsi. These sources, in contrast to professional parapsychologists, are less concerned about validating claims and often use very different approaches to understanding ostensible animal communication which make a number of assumptions that would be unthinkable in the professional world of parapsychology. Interestingly, both lay and professional interest groups have shared concerns as well as diverse conceptualizations with different levels of conceptual rigour and linguistic description. These different interest groups might be more realistically viewed as a spectrum of contributors with different levels of expertise, different aims and expectations. From a parapsychological perspective, the researcher's parapsychological credentials are highly valued (see Morris, 1970) and this view assumes that the work of the lay researchers and animal communicators can be largely ignored, except as anecdotal evidence indicating possible questions which might be answered by future research using the rigorous methods of experimental science. The value of lay approaches, however, is to provide a contrasting position enabling an evaluation of professional anpsi research.

Identifying perspectives

Three perspectives are examined here. Professional parapsychological research on animal psi which is predominantly experimental and laboratory based or sometimes carried out in the field; amateur fieldwork with a very specific origin in the work of Edmund Selous in the early 20th century, and the contemporary lay field of "animal communication". The professional parapsychological work is made up of a range of research efforts carried out by parapsychologists

mainly in the latter half of the 20th century. These adopt the usual kinds of experimental design concerns that are involved in most parapsychological studies. The lay observer work on birds carried out by Edmund Selous (1931) and reported in his book *Thought-Transference (or What?) in Birds* is in the classic tradition of the amateur scientist and presents a well observed and thoughtful account of bird flocking behaviour and how this might be seen as having its impetus in psi processes. Finally, and perhaps requiring more explanation than the previous two perspectives, we shall examine modern animal communication in the accounts of published animal communicators such as Penelope Smith (2004) and a range of communicators represented in Baumann-Brunke (2002).

This latter area of animal communication is quite a controversial one to explore and would normally be seen beyond the range of even a parapsychologist. For that precise reason it provides a comparison against which to examine professional parapsychological work. Professional parapsychology has had to tread a cautious path, emphasizing the orthodox approaches in science of experimentation and statistical analysis in order to provide evidence of psi. Professional parapsychology has to a certain extent had to leave more spontaneous experiences in the background and give little credence to experience and anecdote because these carry little weight in the practice of positivistic science. The animal communicators offer accounts which seem beyond what would be considered possible or indeed rational. For most parapsychologists these accounts are probably likely to be dismissed outright as imagination or even delusion. Of course, for many mainstream scientists the suggestion of psi in the context of laboratory experiments might lead to exactly the same judgements—everything is relative! These perspectives provide a gradient of acceptance, belief and credulity and allow us to examine the conceptual frameworks used in relation to anpsi, their commonalities and tensions.

Constructing Anpsi

Any field of study is embedded in a range of orienting or generative metaphors (Schon, 1993) which frame the phenomena under observation or provide a perspective in terms of other phenomena which are more understood and usually more concrete in nature. As means of further engagement with this topic we mention briefly some of the organizing frameworks within which anpsi has been understood in terms of holism, evolutionary theory and communication processes. Older perspectives on anomalous animal behaviour tend to adopt more spiritualistic connotations and seem quaint and naïve from the modern perspective in parapsychology, which like other scientific disciplines has developed more precisely defined, materialistic concepts often based on

technological metaphors². For instance, Maeterlink speaks of the “spirit of the hive” as the coordinating impulse behind the behaviour of the bees, Degener of the “hyperindividual group soul” and Freud of “common will” (Morris, 1970). These more spiritualistic terms were ways of trying to grasp holistic processes and borrowed from the knowledge and terminology of the times. Their replacement by more mechanistic functions drawing on technological developments in modern society has provided a range of metaphors, which although seeming to provide more clarity and conciseness, could actually deviate substantially from the aim of trying to conceptualise these processes. There has been a tendency to require more exacting terminology and phraseology which is more acceptable to modern mainstream science (see Zingrone, 2006 for an example in parapsychology). Weiss (1969), in observing this reductionistic problem in science where emphasis is placed on isolating individual parts, questions what is lost in not seeing a whole system as the ultimate image³.

In contrast to these older terms which are based upon common sense understandings or lay theories of the spirit and soul, the modern construction of animal and human behaviour in line with the development of the science of communication uses more evolutionary explanatory schemas. For example, sensing is viewed within a adaptive context (Morris, 1970), enabling animals to function well within their environmental niche. These adaptive behaviours can be employed in designing experimental procedures to investigate psi, providing a context for the operationalisation and measurement of variables. Evolutionary theory has been applied to a wide range of phenomena and has a good deal of mainstream scientific acceptance but has also been criticized on the grounds of producing “Just So” stories (Gould, 1997) where the theory assumes a good deal that cannot actually be evidenced because of the limitations of evolutionary theory itself.

There are clear, practical reasons for employing animals in psi tasks, based on the assumptions of evolutionary theory and the simpler arrangement of animal experiments in terms of design and recruitment. It is interesting to note however, that there are also other speculative assumptions expressed in this kind of work which assume, for instance, that humans exhibit more expressive psi (intentional “sending states”) than animals, who are assumed to demonstrate more receptive psi such as homing (Armstrong, 1996). This assumption does not seem supported by any particular

² It is worth noting that terms like ‘spirit’ were common in early scientific writing as a way of grappling with more subtle phenomena. For instance Newton’s early thoughts on gravity involved an “electric or elastic spirit” (quoted in English, 1999).

³ He also uses terms such as “fields” as alternate ways of expressing the more holistic side of dualism acknowledging that theories of communication has privileged the more reductionistic side of dualism with concise units of observation such as “particles”.

study and suggests that the position is influenced by the anthropomorphic positions of researchers. Interestingly, we shall see that the animal communicators assume completely the opposite, that animals are actively communicating all the time but that we do not have the means to hear them.

The terminology and conceptual frameworks in science have become more objectivistic, technological and reductionistic in recent times. In this move to a more mechanistic view of perception, assumptions are metaphorically transferred from other domains of experience and understanding, such as communication theory where information is seen as flowing along specific channels and the signal is seen as subject to deterioration and interference. Although communication theory relies on the physics of electromagnetic energy propagation, these types of schemas for understanding communication are ultimately based upon metaphorical projections from other types of exchange of physical materials experienced in day to day life. Reddy's (1993) examination of the conduit metaphor⁴ is useful here, providing a schema to explore the assumptions involved in these kinds of ideas and in the processes of perception and categorization generally. Reddy (1993) notes that the conduit metaphor implicit in communication theories omits the context in which communication takes place and is framed. This "frame conflict" like Kuhn's ideas of paradigms demonstrates that different frames provide different perspectives and can lead to communication errors. Communication as transmission largely relies on a simple view of the process of communication usually omitting the influence of the context of the communication. The deployment of attention and intention also remain difficult concepts to incorporate into these ideas, requiring a discussion of consciousness which is less easily parceled into clean limited categories.

In contrast, the animal communication literature assumes psi exists without question and employs much simpler and vaguer explanations based around a sensing process which allows humans to:

"share awareness" with the animal. The human then makes an interpretation of the animal's thoughts or feelings. Animals may also pick up human thoughts and feelings and react accordingly. Animal Communication is a cross-species interpretation of thoughts, feelings and energies. It is based on the belief that all life operates in an inherent bio-energetic field of consciousness where thoughts and feelings exist. This consciousness is shared by all species and when specifically contacted can be interpreted by humans and other species. The process of "inter-species communication" requires the development and bridging of both the "left" and

⁴ Where information is assumed to be communicated literally without much need for interpretation or recognition of context because the words we use are linguistic vehicles for the concepts themselves. When these communications fail we assume "we have to try harder to get our thoughts across".

"right" brains as well as the unconscious or sub-conscious and conscious minds. Symmonds (2008). International Alliance for Animal Therapy and Healing web site.

A number of untested assumptions are made here which provide a sense of how animal psi is framed by animal communicators. The quasi-scientific terminology could be seen to communicate some sense of substance and validity. The use of scientific theories which have been popularized such as left-right brain capacities is an example of what Moscovici and Hewstone (1983) have documented as processes of lay adoption and simplification of scientific theories.

The relevance of anecdotal evidence

The issue of anecdotal evidence has been a concern for parapsychology since its inception. From a parapsychological view, anecdotal evidence can offer a field for exploration but cannot be deemed robust enough for scientific examination. The objectivist scientific programme has tried to distance the subjective aspects of human cognition as far as possible from more detached observations in the quest for objectivity. It is worth noting that while J. B. Rhine promoted parapsychology as an experimental discipline to the academic community, his wife Louisa, documented a large body of spontaneous experiences which were generally less discussed. Conventional experimental science places emphasis on replication under controlled conditions, something that is notoriously difficult with psychological and social science studies (see Giddens, 1986), never mind the spontaneous psychical experiences that are the roots of parapsychology. Parapsychology developed from the field of psychical research by adopting methods which were considered more robust and evidential, aiming to provide replicable statistical findings under controlled conditions (see Zingrone (2006) for Rhine's position on experimentation as proof against skepticism). Whether this has been successful or not is a moot point, but the aim of convincing the mainstream inevitably influenced the scientific tenor of the communication. Zingrone (2006) argues that Rhine, with the publication of *Extrasensory perception* in 1934, did not adopt the mode of scientific writing that was considered acceptable in psychology, unlike other authors such as Charles Stuart and J. Gaither Pratt⁵ who adhered to the norms in scientific expression and as a consequence were found more convincing by nonparapsychologists. Some of these communication errors that were noticeable in Rhine's *Extrasensory perception* were noticeably improved in *Extrasensory Perception after Sixty Years* published in 1940 (Zingrone, 2006). In spite of learning the lesson of adopting the right presentation, the ever increasing array of technological and sophisticated research methods and analysis that characterize modern parapsychology does not seem to have increased mainstream

⁵ These were among the co-authors with Rhine on *Extrasensory Perception after Sixty Years*.

acceptance of its findings.

Like parapsychology the field of animal behaviour, presents itself as an empirical endeavour within an orthodox objectivistic approach to science, and so needs to be seen to attach little relevance to anecdotal evidence. The field has however, faced criticism on the basis of ignoring the fact that anecdotal evidence is inevitably tied up with animal-human relationships (Mitchell, Thompson, and Miles, 1996). Research that has adopted more interpretative frameworks which depart from the ideals of hard science has been criticized for being too anthropomorphic (e.g. Kennedy, 1992). Researchers in the field of primatology have often been criticized for adopting an anthropomorphic approach but have countered that the kind of scientific expression permitted in the journals does not really communicate what it is like to work in close proximity to such animals (Rees, 2007). The feasibility of examining anecdotal evidence in relation to animal psi is clearly problematic if it is not acceptable in a less controversial area such as animal behaviour. There is clearly a balance to be struck here that is important for science generally. Animal observation to a certain extent shades into what might be considered anecdotal, in that observation is often an individual perceptual experience structured by previous experience and theoretical schemas, and it is of course impossible to understand any behaviour or event independent of an interpretational stance.

It is interesting to note that anecdotal evidence has at times been used as evidence of the extraordinary sensitivity of animals. For instance there are many reports of unusual animal behaviour in response to the onset of natural disasters; which as Ikeya (2004) notes, could of course, have important outcomes for predicting these events. Sheldrake (2005) reports on animals predicting natural disasters and air raids in WWII, and the fact that the Chinese authorities encouraged people to report unusual animal behaviour in order to predict earthquakes. Unusual animal behaviour prior to the Haicheng earthquake in 1975⁶ led to Chinese officials ordering the successful evacuation from the area, resulting in only small proportion of the population being injured or killed.

There are other important issues to be examined here. The professionalisation of science and the status offered to scientists has led to a trust in objectivistic science and an equal mistrust of lay theory and observation (see Furnham, 1982). The distinction between lay and professional observers is an important consideration. In parapsychology, lay observers are involved in a fairly

⁶ There were numerous reports of animals showing unusual behaviour just prior to the earthquakes in Chengdu in China in 2008.

lively spontaneous case research field and sometimes psychics without an academic background in the field appropriate the title parapsychologist, so the field itself does not have the clear professional boundaries that other longer existent fields may have. The findings in the field of studies of social sciences indicates that professional scientists can learn from the practitioners (e.g. Collins and Pinch, 1998; Collins and Edwards, 2002). In common with much early science, amateur scientists in parapsychology provided important insights into a range of phenomena. Some of the early lay psi observers undertook very detailed and lengthy observations (probably investing more time in this than the professional animal researchers would be able to). For instance, Edmund Selous early in the 20th century undertook a dedicated observation of the behaviour of large flocks of birds and provided an eloquent account of their behaviour, with subtle reasoning about the mechanisms involved in their flocking; speculating that there is something akin to human ESP involved in mass coordinated movements. He observed, for instance, that large flocks would: "All at once the whole entire multitude rise simultaneously, or if not absolutely so, with one animating impulse..." Selous (1931) p5.

Animal communicators rely entirely upon anecdotal evidence. Baumann-Brunke (2002) presents her journey of acceptance of animal psychic communication and illustrates her transition from observer to participant. In these settings communication is usually dyadic with a human and an animal participant, with little room for corroboration by another communicator. Animal communicators can be trained and this might be seen as analogous to the way that mediums develop their abilities. Personal interpretation is required, often with visual images or emotions being central to the animal communication and requiring linguistic translation by the human participant. Animal communicators provide a service for pet owners with difficult relationships with their pets, often due to behavioural problems. Most initial communication seems to arise between the animal communicators and their own pets. There is as a consequence a high level of acceptance of anecdotal evidence in animal communication and very little, if any, testing of the validity of the communications.

Primitiveness, emotion and psi

Psi is often assumed to be a remnant of past forms of communication, and to be an adaptive and evolutionary factor (Broughton, 1988)⁷. This idea that psi has survival value is still very prominent

⁷ As already mentioned evolutionary schemas are widespread for a wide range of phenomena and currently hold a good deal of sway because of the perceived image of evolutionary theory as a high status theory with much support. However many of these evolutionary explanations are inevitably untestable and highly speculative (see for instance, Goldstein & Barklay (1999) on evolutionary theories for ADHD).

in arguments about animal psi (Johnson, 1982; Taylor, 2003; Sheldrake, 2005). Davis (1979), relying on evolutionary assumptions of development, designates anpsi as a primitive mode of communication. This idea has inevitable presentist tones, that assert that rational-analytic aspects of thought are more evolved and superior to more experiential thought processes, which is also reflected in recent models of cognition (e.g. Epstein, 1994).

Selous (1931, p.11) communicates this idea well and suggests that if psi exists, it may appear in other species as a “survival of and reversion to something more primitive than articulate utterance...” thus emphasizing the superiority of speech and human thought. He also notes that this is something that guarantees that psi is not just a religious assumption, presumably because it places the idea of anpsi within the framework of evolutionary and therefore biological mechanisms.

There are theories within parapsychological research that suggest that psi might be seen as an evolutionary remnant experienced by humans, perhaps, as “a region of consciousness below or behind thought” (Carpenter, 1912, p.79). As such psi may be characterized as more unconscious than conscious and more emotional than rational, this is a view which has also been explored in human studies with paradigms such as DMILS (see Braud, 1992). Other theories such as Stanford’s PMIR model (Stanford, 1974a, 1974b) drew on the same kind of framework in their assumption of environmental scanning for threats to survival as a means of optimizing the needs of the organism (see also Taylor, 2003). From this perspective, animals are assumed to be able to anticipate future stresses at an emotional level (Davis, 1979) and receive emotional information that is related to choice related information (Morris, 1977).

On a spectrum of consciousness, with logical problem solving being very conscious and volitional and automatic responses being more unconscious, psi is seen as an unconscious process in humans (Armstrong, 1996) and as a presensory process in non-humans (Rhine, 1951). This is also recognized to some degree in the more popular lay theoretical accounts of animal psi. Thoughts and feelings intrude in extrasensory communication with animals and feeling is central to this process. This assumption of psi being more emotional in character resonates with the early ideas of “telepathy”; literally, “feeling at a distance” and also seems to be borne out by research indicating that low arousal levels attained through physiological and relaxation lead to changes in consciousness that facilitate psi responses (Braud, 2002).

Lay theories of animal communication see the past as important as well but for very different

reasons. Human receptiveness of animal psi puts humans back into a harmonious relationship with nature. There is an assumption that humans have deviated a good deal from a balanced relationship with nature and non-human species. From this point of view, returning to a state where there is communication between species would provide benefits even at an ecological level. This position assumes, like many religious and mythological sources, that there was a prior golden age where there was interspecies communication.

Terms, metaphors and models

The language we use tells us a good deal about how we frame and structure knowledge. Conceptual metaphor theory has offered some useful insights in terms of recognizing that everyday thought is largely unconscious and relies on metaphor to concretise abstract ideas (Lakoff and Johnson, 1980, 1999). Unsurprisingly, the language used by scientists can reveal a good deal about the thinking that encapsulates their ideas (Gross, 1996). As uncomfortable as it might be for those who prefer objectivistic philosophies, scientific theories, like lay theories, are often drawn from metaphorical projections based on experiential gestalts (Brown, 2003). It is arguably impossible to escape our metaphors in understanding our world as lay or professional theorists. Cardena (1994) communicates this idea nicely: "...not only is there no pure scientific language, but experience (and our theoretical models of "reality") cannot be construed without recourse to metaphorical language" (p.163).

The categorisation of the psi process in humans and animals typically involves the notion of some kind of signal being transmitted from a "sender", "agent", "emitter" or "issuer", with obvious active connotations, to a more passive "receiver" (it is interesting here that we also seem to have more terms for the active participants than we do for those that are passive, indicating something of a bias in our construction of psi perhaps). These ideas of psi as a signal rely on a range of exemplars in everyday life from physical contact, speech and radio transmissions (see Williams, 1996, Williams and Dutton, 1998, Williams, in press), and as already mentioned are arguably structured by Reddy's (1993) conduit metaphor. These ideas as well as being used professionally are regularly employed in lay theoretical speech where information is "picked up" or "caught" or "read". This construction assumes that information is passed from one organism to another. From the lay perspective, Smith (2004, p.30) similarly imagines that psi is very much like a broadcast; "The message floated around the planetary airwaves" or that communication is conceptualized as "a running current among us, so that we don't need to question each other or chitchat very much."

Braud (1994) explicates the transmission model with detail in the following quote:

In attempts to understand how consciousness can influence remote events, three classes of models have been proposed. In transmission models, it is suggested that remote influence or remote knowing is accomplished through some physical or quasi-physical force that carries information from one locus to another through some channel or medium in a manner analogous to mental radio: There is transmission and reception of information, intelligence, or energy. Such models have many difficulties. The mediating force has not been identified, nor has the "channel", nor do we know of mechanisms through which conscious content at the "source" can be coded into or modulated onto the "carrier" then decoded or demodulated from the carrier at the "destination". The process does not behave as other forms of transmission customarily behave with respect to physical factors such as distance, shields, screens, amplifiers, attenuators, the nature of the "target" or of the conveyed information (message content), or (perhaps most problematically) time. p.8

Older ideas as we have already noted relied upon less technological metaphors such as signals or transmission; for example, Coues (1886, p.123) asks what "subtile connection" is inherent in animal psi. Selous (1931, p.17) similarly sees a spontaneous impulse affecting the general body of the birds instantaneously, as though they had been one (or were bound by a subtle connection). Using the more vivid speculative terms of an earlier century he assumes that "...they must think collectively, all at the same time, or at least in streaks or patches—a square yard or so of idea, a flash out of so many brains." (Selous, 1931, p.19). Selous thinks that it is not difficult to imagine that each of the birds moving at once in a flock have some kind of connection where each is a part of the thinking of the whole: a state of "subliminal union through which they act as one" (Selous, 1931, p.70).

This way of seeing animal psi resonates with Braud's (1994) discussion of two other classes of models: the second class of model is that of "reorganization" where nothing is transmitted, but a resonance-like process occurs between target and source providing similar pattern or order. The third class of models might be described as "holonomic" or "correspondence" models where again there is no transmission but access is gained to information already distributed in a manner analogous to a hologram. These ideas share features with Jung's (1992) ideas of synchronicity and Bohm's (1980) implicate order. These models focus on the difficult idea of nonlocality and stress that information is not transmitted but is ultimately already potentially available.

Selous' terms are informative (it is evident that more modern commentators avoid these kinds of terms in an effort to be more precise and literal) and he struggles with terms to find an appropriate vehicle for his thoughts, for example:

If, however, they are knit together, through some projected mental atmosphere, so to call it, represented by actual connective substance of extreme tenuity—if, in fact, they are not really, but only apparently, separated, when thus congregated, then the thing is different. In that case it would be like the “eyes” in the peacock's tail, with the rest of the tail invisible. Nevertheless, each movement of the tail would be the movement of all the eyes together, which would alone be seen. Selous, 1931, p83-84.

Here, Selous offers two of the models which Braud describes, the first based around the notion of transmission through a tenuous substance and the second assuming that different apparently separate entities are actually fundamentally aspects of one whole.

In trying to make sense of this subtle connection he employs the new energetic metaphors of the time: “electrovitalised”, “thought flash”, “sudden contagion of energy”. Electricity remains a powerful metaphor, because it shares the invisibility of psi but demonstrates behaviours which we recognize as communicative (information carrying) and energetic (motivating). Selous clearly works through his analogy with care.

But if we suppose the whole mass of birds to be interconnected by something analogous to wires along which something that we may compare with electric current courses with varying degrees of intensity at this or that point of flock, but sometimes with a high degree of it over the whole flock...” (Selous, 1931, p.120).

In passing beyond the electrical metaphors he uses others which characterize this unified behaviour of flocks, including “thought transfusion”, and “mind pervasive manner”, assuming a different “flavour” of transmission using a more nonlocal or holonomic analogy to explain how the birds act “as if threaded together.

These models and metaphors of holism, are of course, difficult to handle in day to day experimentation without reviewing the complete model of reality we use and the assumptions about

experimental manipulation and controls which are the basis of orthodox or conventional experimental science. As Braud (1994) notes, these models also require some consideration of the nature of consciousness as beyond the brain and involving the inevitability of non-local effects. These considerations also add more difficulties to the research process and a strain on the conventional objectivistic paradigm in which psychology and science operates.

From the perspective of more popular accounts of animal communication these concerns receive less attention and metaphors of connection are more freely explored. Baumann Brunke (2002) for instance, adopts the evolutionary idea that human and animal psi is a remnant of the far past and suggests that successful human-animal communication is achieved by taking a journey back “home” to this previous (evidently more holistic and connected) golden age. The lay theoretical terms here show clear relations with the more professional terms mainly because the professional terms dealing with transmission metaphors have been borrowed from lay discourse. So for example, Nedda Wittles, a psychic who communicates with animals, recognizes that she “receive[s] in many forms: pictures, images, sounds, concepts, words, knowings, emotions, physical sensations.” Another communicator, Penelope Smith (2004, p.56) notes that “When I contacted the mother dog, she flashed me a picture”. The communicators are sure that this type of communication emphasizes “mind-to-mind connection” (Baumann-Brunke, 2002, p.17). Also according to Smith (2004) “Animal companions are capable of understanding our verbal abstractions by getting what’s behind them to what humans really mean. Their normal mode of communication is direct transmission of intention and feeling.” (Smith, 2004, p.8). Sometimes, the communications are elaborated in terms of the ubiquitous energy metaphors (Williams, Evans and Skinner, 2003; Williams 2008) to provide ways to put flesh on experiences which are difficult to frame: for instance, where “knots in the auric field” (Baumann-Brunke, 2002, p.13) of an animal are cleared and communicating to some animals requires “a downshift into a totally different energy level” (Baumann-Brunke, 2002, p22).

Practicalities

One of the significant reasons for using animals as participants in psi experiments concerns a range of potential practical advantages. Amongst these must be the easier control of variables and avoidance of confounding variables attached to working with human participants (Green and Thorpe, 1993). In addition, working with animals obviates tendencies towards fraud since animals would generally have no motivations to mislead, although, of course, the potential of experimenter fraud cannot be ruled out in anpsi studies. Animal studies could afford a clearer biological locus for

psi and possibly a more convincing account of psi for skeptics. Interestingly, a contrasting position is held in the popular literature for instance Baumann-Brunke (2002, p.19) explains: “The jump from believing telepathy between humans is possible to believing telepathy between species is feasible is a tricky one for some. It requires not only viewing animals as intelligent, sentient beings [on a par with humans], but accepting that a flow of communication between humans and animals is possible”. According to Baumann-Brunke (2002, p.19), one animal communicator, “Carol [Gurney] feels that people talk with their animals all the time, though they don't necessarily recognize it.”

Rhine (1953, p.12) notes the importance of finding: “...a species that will enable us to work fast and under easily controlled conditions towards the objective of finding the essential nature of ESP”. Human experiments are time consuming compared to the time scales in which small animals exist. Animal responses are faster permitting increased data gathering in shorter collection periods. In addition, because some animals such as insects or protozoa have relatively rapid generative cycles this offers the possibility of selective breeding of individual animals with traits that seem to be psi conducive. For instance Chauvin (1986) noted that in experiments with mice, some individuals outperformed others and wondered whether cross breeding would produce similarly talented animals. Lepes (1992) exploring the possible psi capacity of the even faster living drosophila (fruit fly) also saw the possibilities of easy to repeat studies with better controls, rapid multiplication and selection. Another advantage is that with small animals housed in customized experimental quarters and in experiments with simple operationalisation of independent variables, there is the possibility of automating the experiment, reducing bias and experimenter influence and allowing for more rigorous protocols (Lepes and Argibary, 1994).

Although certain species have particular sets of behaviours seem amenable to experimental manipulations, these responses should be natural to the animal, and the possibility of awareness of previous learning influencing responses should also be considered. As in any animal study the inducement of reward and punishment is relatively easy to instantiate to motivate lability and control (Morris, 1970). The behaviour of various animals has been posited as suitable to be entrained by psi. Rhine (1953, p.14) proposes that “the most promising test is built on the retrieving capacity of the dog”. Sheldrake (2003) on the other hand sees great potential in using speaking animals such as parrots for tests, assuming that they are capable of greater diversity of responses compared to other domesticated species such as cats or dogs. Some natural tendencies, such as imprinting in birds also offer themselves to experimental psi testing (Green and Thorpe, 1993).

The selection of particular behaviours which might be psi-responsive has been another element of discussion in anpsi research. According to Davis (1979) emotional and somatic responses are more trustworthy, this obviously communicates the assumptions about the level at which psi is operational. Broughton (2006) notes how emotion plays a fundamental role in evolutionary responses such as fight or flight which humans share with virtually all vertebrates, and how this provides a framework for understanding needs based psi. Davis (1979) speaks explicitly about the “emotional anticipation of future stress” as a possible behaviour that might mediate psi.

While the professional literature on anpsi is concerned with the utility that animal experiments offer, the lay theoretical perspective is concerned more with the relationship between animals and humans. Discussion of how anomalous animal communication takes place is predominant: “The thought of the animal blends with your consciousness” “It has to become your own inner thought for that flash of a moment in order to get it. What happens is that we judge it as ours. We don't know how to tell the difference sometimes.” (Baumann-Brunke, 2002, p.20). These concerns about trying to ascertain what is internally and personally generated thought and what is ostensibly external and “sent” from another person are obviously important in any psi research and in improving psi test hit rates. Baumann-Brunke (2002, p.20) goes further to suggest “Part of the skill as a psychic is not simply receiving information, because data without some analysis or interpretation is not very useful”. This diverges from the stance of professional parapsychology which sees problems in identifying psi because of the possibility of too much interpretation, which reduces the ability of the participant to identify psi targets (Broughton, 2006). Baumann-Brunke also anticipates the professional parapsychologist's concern with the concomitants of psi, suggesting that the form of the psi communication depends on the personality of the receiver and sender.

Relating to animals

Science has had a history of difficulty in relating to animals. Indeed, “relating” is a term which is probably considered problematic in conventional science. Orthodox views of science have stressed the importance of dispassionate objectivity in scientists. This is however rarely achieved and even some scientists working at a molecular level seem to develop a relationship with their subject matter. For instance, Barbara McClintock in her work on genes developed a strong sense of relationship with the chromosomes she was studying (Fox-Keller, 1984). In animal research there have been strenuous efforts in laboratories using species such as chimpanzees or monkeys to avoid

naming them and therefore developing relationships⁸. The aim here is to avoid anthropomorphism, or seeing the animals in too human a framework. Eschewing relationships for assumed objectivity is likely to be a goal that is impossible to achieve and it seems more sensible to acknowledge that the relationships exist in spite of our efforts towards objectivity (Davis and Balfour, 1992).

Parapsychologists have also expressed concerns about their relationships with the experimental animals they work with. Schmidt (1970) proposed that unexpected psi-missing behaviour in cockroaches in a task to predict electric shocks might be a consequence of his role as experimenter and his dislike of the creatures. Other researchers hint at ambivalent feelings, for instance, Kennedy (1979/2007) mentions the “vicious rats” he employed in a PK test. It seems likely that psi interactions with non human species are likely to be characterized by emotions involving unconscious or low level cognitive activity if we remember that telepathy is feeling at a distance. Since they are partly unconscious and difficult to control, these feelings are likely to influence research, emphasising how relationships cannot really be avoided in these kinds of studies.

However, in spite of the importance of relationships between experimenters and participants being shown to be an important influence on psi (e.g. Kennedy and Taddonio, 1976) there is little attention in anpsi to the issue of relationship except for these interpretations of possible confounds or the experimenter’s distaste for certain species. This is in spite of the relationships of experimenters and participants (and the relationships between participants) having been shown to be important factors in the results obtained in psi experiments (White, 1976a; White 1976b).

A good deal of the animal communication literature naturally has a writing and conceptual style that is very different from the professional parapsychology literature. Where the parapsychologists are naturally concerned with very specific categorization and definition, the animal communicators permit themselves a broad range of speculation including, from a conventional scientific view, very general and untestable assumptions. A narrative that appears in Baumann-Brunke’s book is that humans have departed from a state of mind in which all species had kinship. She quotes J Allen Boone on humans’ original experience of life:

Life to these ancients was an all-inclusive kinship in which nothing was meaningless, nothing unimportant, and from which nothing could be excluded”. “Every living thing was seen as a

⁸ The famous Russian physiologist Pavlov had a policy of fining his laboratory assistants if they succumbed to this kind of behaviour.

partner in a universal enterprise. Each had an individual contribution to make to the general good which it, and it alone, could supply.” Boone (1954, quoted by Baumann-Brunke, 2002, p.7)

This hypothesized golden age sits behind the assumption of a commonly shared language. Baumann-Brunke (2002, p.34) implicitly assumes we need to return to this state to recognize that “If there is a single message at the core of all animal communication, it is this: We are all one.” Her outlook suggests almost a reversal of the professional parapsychologists’ reasons for using animals in experiments because of a evolutionary remnant. For Baumann-Brunke, while psi might be seen as a primitive skill it also allows us to recognize that “animals are a gateway to a higher awareness of spirituality”. Similar ideas have been expressed by channelers who appeal for recognition of the ecologically disastrous behaviours displayed by modern humans (see Brown, 1997). Conversation with animals is intended to direct us back onto a more wholesome trajectory and help us to recognize our proper place in Nature.

The idea that animals connect us to Nature is also evident in Smith’s book:

When people divorce themselves from Nature, from the spiritual essence that flows through all of life, their relationships with their fellow creatures of different forms often assume the shallow character of owner and possession. When we connect as spirits and share each other’s worlds or unique expressions of life, there is no need for categories and hierarchies that divide us. (Smith, 2004 p.xii).

There is a certain air of new age spirituality and extreme holism in these examples of the animal communication literature. The tone is experiential and communication with animals is presented as an indication that we are living a more connected life:

When we do slow down and tune in, we become much more aware of the nature around us: the behavior, habits, feelings, energies, and spirit or essence of other species in our environment. As we continue to spend time in a quiet, receptive mode with other species, we may get images, impressions, thoughts, messages, feelings and energies in different forms, which we have to learn to interpret or understand. (Smith, 2004 p.xii).

As pointed out in the discussion of practicalities, above, in experimental parapsychology animals

might be seen as a convenient context in which to test for psi. The animals are exploited for their simple behaviours and the malleability of these in relation to recording instances of psi. There is an assumption, as with other disciplines that study animals, that the human-animal relationship is unimportant or is at least controlled for experimentally. From the animal communication literature there is almost an ethnomethodological concern to see the animal on its own level (even though this is somewhat romanticized) rather than the more intrusive techniques used in traditional scientific approaches.

Debate, argument or rhetoric

It can be seen from the different perspectives offered by the parapsychological and animal communication literature that there are a range of assumptions operating in the thinking of these different parties. These relate to the abilities of animals, their roles in relation to anpsi and the question of judging whether these kinds of phenomena are real or not, or explicable through normal sensory channels. The question also arises of where and who is well positioned to examine, discuss and communicate these ideas more widely in popular writing and the media.

Some of the parapsychologists have explicitly stressed the value of animal experiments because they would have more face validity and present stronger evidence. Field studies offer less control but are inevitably more ecologically valid. One such study worth brief examination is that by Sheldrake and Smart (1998) which examined the behaviour of Smart's dog Jaytee who seemed to be able to predict when she was returning home. This example has its origins in anecdotal evidence and informal observations of Jaytee, but Sheldrake and Smart applied more experimental protocols to assess if the anecdotal behaviour remained under more controlled conditions.

Sheldrake publishes his work on parapsychological topics in books aimed at the general public. His choices of topics to investigate tend, also because of this orientation, to attract the interests of the media. This media interest also seemed to pique the interest of more skeptical parapsychologists such as Wiseman, Smith and Milton (1998) who examined Sheldrake's findings and went on to conduct their own experiments on the dog Jaytee. Sheldrake's studies could be seen as problematical since he involves the public as untrained data gatherers, basing research on anecdotal evidence and also because he is trained as a biologist and not as a parapsychologist.⁹

⁹ Remember that Morris (1970) asserted that the pedigree of the researcher was important, with parapsychologists being seen as the optimal experimenters.

Wiseman, Smith and Milton's (1998) experiments deviated considerably from the procedures devised by Sheldrake and Smart (1998). Very specific randomisation techniques and time-windows were used to define a successful response by the dog with the large part of the data outside of these observation periods remaining unanalysed. This seems reasonable from the parapsychological point of view as we have seen already that animal studies were considered valuable because relatively simple behaviours could be operationally defined in quite specific terms. In actual fact, these diverged quite strongly from Sheldrake's own definitions and presumably, also from the animal's observed behaviour as communicated by the owner. Considering the importance of rhetoric in science we must not forget that exactness can exude a certain persuasive tone to a scientific communication (see Soyland, 1994). However, these kinds of specific measures need to be sophisticated enough to reflect the complexity of the animals' natural behaviour.

There was some acrimony over these sets of studies and their "replications" and most of it played out in front of the media with assertions that the phenomena had been debunked. Sheldrake (1999) argued that the full data gathered by Wiseman et al. actually bore a considerable likeness to his own; after consultation with Wiseman, Sheldrake adjusted the way the data was presented but even so this seemed to confirm the same kinds of behaviour already observed by Sheldrake. This data was not mentioned in the *British Journal of Psychology* paper (Wiseman, et al. 1998) even though Sheldrake had suggested that it might be included.

The other aspect of these studies that bears some consideration is the use of the media. Wiseman et al. (1998) reported again that their work generated considerable media interest. This is a strange thing to be concerned about in a scientific paper but makes more sense when we consider that Wiseman has undertaken a number of high profile media experiments in the past and has played a prominent role as a media skeptic. The media release from the British Psychological Society led to a range of high profile news stories which all emphasized the debunking of the phenomenon on the basis of one very limited study.

Zingrone (no date) examines these particular studies in some detail and is forced:

... to assume that critics and skeptics have no difficulty designing experiments so as to ensure that confirmatory evidence, if it has the bad taste to appear, can be rhetorically ignored.

(Zingrone, no date)

The data from Sheldrake's study was reanalyzed by Radin (2002) and a statistical arms race seemed to be in the offing when Jaytee's waiting behaviour seemed to be significantly related to geomagnetic fluctuations. Again it is interesting that these accounts appeal to assumptions that measured physical phenomena are more real and in the realm of physics, the "hardest" science of course. Correlations between the dog's behaviour and these physical phenomena provide a higher level of impact than that available in terms of simple observation or statistical probability alone. Observing the positions of the different parties provides some final examples of the difficulties of dealing with psi even when it is animal psi, which might be assumed to be more simply demonstrated and amply evidenced than human psi. It also provides a good context in which to see professional parapsychology's rejection on the basis of a number of the themes we have discussed in this paper, as well as the role of media skepticism in debunking such studies.

Conclusions

A number of themes have been examined in this paper which samples a range of approaches, conceptual frameworks and theoretical assumptions involved in examining animal psi from both a professional-parapsychological as well as lay-theoretical animal communication stance. These themes are intended to provide opportunities to examine the differences between the two approaches and the assumptions involved in these. They also reflect upon how parapsychology as a science positions itself as a marginal discipline and permits room for examination of the rhetoric involved in the communication of its activities.

Parapsychological research (and anpsi research in particular) is committed to a technological or mechanistic view of science, which to be fair, is largely to be expected, since this is how mainstream science positions itself. Skepticism often develops an extreme version of this view, as Zingrone (2002) has noted. The problem with this view of science is that it limits the kind of phenomena that are acceptable for investigation. Phenomena from this perspective should be easily categorized, replicable, objective and of course submitted readily to quantification. Psi does not seem to easily offer itself to these criteria. Faced with a similar situation, the behaviourists in psychology found it more convenient to throw out the concept of mind rather than suffer the inevitable difficulties of squeezing the phenomena into an experimental and quantitative mode of investigation.

Interestingly, there may be gender differences in preferences for a more technological or mechanistic and a more holistic science. One of the most striking issues which came out of this survey of the literature is the male/female balance. The experimenters are exclusively male in this broad sample of papers and books while the animal communicators are exclusively female. This is not to say that all males follow the professional experimental path or that all females are positive towards the assumptions of animal communication, but at the very least it suggests there is possibly a perspectival bias in relation to gender. We know from the literature that in the past males tended to gravitate towards working in science and technological disciplines and females in contrast, were more oriented towards the arts (Acker and Oatley, 1993). Encouraging more females into science, and attempts to move beyond the stereotype of science being a male activity, may be altering the balance but it is likely that there are generally different perceptions natural to the two genders which generate these different perspectives.

Different methodologies characterise professional anpsi and animal communication work. Traditionally, parapsychology has been largely characterized by formal experimentation; whereas animal communication almost takes on a narrative approach more akin to methods used in the humanities. These have different philosophies which inform them and all too often, as we see in the field of psychology, the quantitativists and the qualitativists find it difficult to find common ground or value each others' methods. Braud and Anderson (1998) brought a refreshing and challenging perspective to this question by raising the notion of integral inquiry where both quantitative and qualitative approaches are valuable and are used depending upon the requirements of the research question. In their view, research questions can even be informed by dreams, something that would largely be unthinkable from an orthodox empirical scientific viewpoint.

In examining professional parapsychological anpsi work alongside lay animal communication, the contrast in approaches becomes more apparent. Professional anpsi research is concerned with the specific utilitarian details of animal life which can act as hooks on which to hang psi theories (predominantly evolutionary ones). Animal communication approaches are much more concerned with understanding the story of the particular animal in focus and how the relationships between humans and animals are formed and maintained. This tells us something about how parapsychology as a science is practiced; following orthodox science it values use over relationship. The mythologising¹⁰ of animal psi in animal communication literature seems almost a

¹⁰ At times it seems as if the kinds of conceptual systems employed by shamanic cultures such as North American Indian tribes, where animals could be spiritual guides, are alive and well in the thinking of the animal communicators.

compensatory irrationality, balancing the rational, utilitarian, mechanistic approach of professional parapsychology.

Science, as a human activity, is also sometimes a rhetorical activity. To a researcher immersed in the technological/mechanistic metaphor of science this would no doubt seem a ridiculous assertion worth very little attention. From a mainstream science perspective, this assertion seems beyond the pale. Yet acknowledging the rhetorical nature of scientific practice provides a check on how science is conducted and communicated and reassesses the distance between professional and lay theory. This can only be helpful in times where institutionalized science may have begun to "... outgrow its function as an epistemic enterprise" (Fuller, 1997, p.284).

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