

Frans de Waal and Evan Thompson
Interviewed by Jim Proctor

Primates, Monks and the Mind

The Case of Empathy

Jim Proctor: It's Monday, February 14th, Valentine's Day, 2005. I'm pleased to welcome Evan Thompson and Frans de Waal, who have joined us as distinguished guest scholars for a series of events in connection with a program sponsored by UC Santa Barbara titled New Visions of Nature, Science, and Religion.¹ The theme of their visit is 'Primates, Monks, and the Mind'.

What we're going to discuss this morning — empathy — is quite appropriate to Valentine's Day, and is one of many ways to bring primates, monks, and the mind together. I know that empathy has been important to both of you in your research. So we will explore possible overlap in the ways that someone interested in the relationship between phenomenology and neuroscience — or 'neurophenomenology' — and someone with a background in cognitive ethology come at the question of empathy.

I'd like to start by making sure we frame empathy in a common way. What would you say are the defining features of this capacity we're calling empathy?

Frans De Waal: At a very basic level, it is connecting with others, both emotionally and behaviourally. So, if you show a gesture or a facial expression, I may actually mimic it. There's evidence that people unconsciously mimic the facial expression of others, so that when you smile, I smile (Dimberg *et al.*, 2000). At the higher levels, of course, it is more of an emotional connection — I am affected by your emotions; if you're sad, that gives me some sadness. At even higher levels of empathy, I try to figure out what your situation is and I try to put myself in your shoes even sometimes when I've never been in this particular situation myself, but of course if I've been in the same situation that greatly facilitates my empathy with you. If you have been in an accident and I have been

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[1] See www.newvisions.ucsb.edu

in an accident that makes it easier for me to relate to your experiences.

And with regards to all these levels, I'm sure, there's an evolutionary reason why we distinguish them because probably it started with the simplest levels and then evolved in the primates and us to these far more complex levels.

Evan Thompson: I would say in the most general terms that we could think of empathy as the mental capacity, involving cognition and emotion, to understand another person's perspective, another person's thoughts and feelings. In my own work I've drawn on the way that empathy is discussed in the philosophical tradition of phenomenology, which distinguishes among a number of different aspects or types of empathy. The most basic, in a way the foundational or ground floor one, is a coupling or pairing between one's bodily being and the being of another. This can take various forms. There are various kinds of affective and motor resonances.

For example, if an infant starts crying in a nursery, other infants respond by crying. There are also the images that Frans was showing yesterday of yawning contagion in apes and humans (when someone yawns we start to yawn). There are all sorts of other motor mimics, where we imitate each other's motor behaviours in a spontaneous and unreflective way. So that sort of coupling or pairing is a ground floor; without it it's hard to see how the more developed forms of empathy could arise. A second, more developed aspect, could be described as involving some kind of imaginative transposition or movement to the place of another, so that you put yourself in someone else's shoes, imaginatively speaking. And then, third, this perspective-taking can become more complex in the sense that you don't simply put yourself in somebody else's shoes, but you put yourself in somebody else's shoes such that you comprehend how they see you. Here there's a kind of reiteration of empathy, so that you have an empathetic experience of someone else's empathetic experience of you.

I see this third aspect as very important for the development of a sense of personal self. I experience my being not from a closed, first-person singular perspective, but from an open and shared intersubjective perspective, where I have access to how you see me. Finally, a fourth aspect of empathy would be, I suppose, a specifically moral aspect, where we could say that empathy is a moral perception of someone else as a person. By 'person' I mean someone who has a some kind of moral standing who's deserving of concern and respect. Or even more generally, we could say that empathy is a moral perception of another being as a sentient being, as a being capable of suffering, and therefore deserving of moral consideration. So I would see empathy as encompassing all of those different aspects.

Proctor: It's interesting that, in defining empathy, both of you look at it at multiple levels — can we say at 'higher' levels building upon previous levels? That seems to tie into the ways you have studied empathy in your own work, Frans.

De Waal: I call it my 'Russian doll model' (de Waal, in press). To the biologist, a Russian doll is a satisfying plaything, especially if it has a historical dimension.

I own a doll that shows Russian President Vladimir Putin on the outside, within whom we find, in this order, Yeltsin, Gorbachev, Brezhnev, Krushchev, Stalin, and Lenin. Discovering a little Lenin and Stalin within Putin will hardly surprise most political analysts. The same is true for biological traits: the old always remains present in the new. This is relevant to the debate about the origins of empathy since psychologists tend to look at the world through different eyes than the biologist. Psychologists sometimes put our most advanced traits on a pedestal, ignoring or even denying simpler antecedents. They believe in saltatory change, at least in relation to our own species. This leads to unlikely origin stories, postulating discontinuities with respect to language, which is said to result from a brand new 'module' in the human brain (e.g. Pinker, 1994), or with respect to human cognition, which is viewed as having cultural origins (e.g. Tomasello, 1999). True, human capacities reach dizzying heights, such as when I understand that you understand that I understand, etcetera. But we are not born with what Evan would call 'reiterated empathy'. Biologists prefer bottom-up over top-down accounts, even though there is definitely room for the latter. Once higher order processes have come into existence, they begin to modify processes at the base.

At the core of the Russian doll of empathy we find basic perception-action mechanisms: the subject activates representations of the state he or she sees the object in (cf. Preston & de Waal, 2002). Around this inner doll, evolution has constructed outer layers of ever greater cognitive complexity, all the way up to theory-of-mind, such as when you have a full understanding of what someone else is thinking or going through.

But within all of those sophisticated outer layers, there remains at heart a very basic, involuntary process of state matching. If this process is knocked out or non-existent, this will disturb all the rest. For example, with autism, there was a time when people said autism is a disorder of theory-of-mind, that autistic children are unable to understand others (Baron-Cohen, 2000). But now people are looking at the basic level and saying that autism actually starts with deficiencies in basic emotional connectedness. Problems with theory-of-mind rather appear as a downstream event as a result of the Russian doll's core being disturbed.

Proctor: And in your work, Evan, can you elaborate a little on this notion of multiple levels and how that ties into the more phenomenological approach you've taken?

Thompson: Well, the aspects or levels of empathy as I just described them are clearly marked and differentiated by the phenomenological tradition in its discussions of empathy (Depraz, 1995; 2001; Stein, 1964; Thompson, 2001; 2005). What's interesting is that even if you're approaching empathy as a kind of experience, and you're analysing the experience on its own terms as an experience, which is what phenomenologists do, you're led to make the same kinds of differentiations that we see very much at play in ethology, developmental psychology, and affective-cognitive neuroscience. For example, Jean Decety (in press) has

recently proposed a model of empathy consisting of four major components: affective sharing based on perception-action coupling, self-other awareness, mental flexibility to adopt the perspective of another, and emotion regulation. His fourfold model corresponds quite closely to some of the major phenomenological aspects of empathy I described. I think this convergence of phenomenology and cognitive science corroborates the neurophenomenological approach to the mind and experience. I should say that ‘neuro’ is a little narrow, because this approach also encompasses ethology and developmental psychology. By ‘neurophenomenology’ I really mean an approach that’s both phenomenological and scientific. The point is that the same kinds of distinctions come up in both areas, so I take that to be a good sign.

Proctor: So what I’m hearing, again from different disciplinary points of departure, is a lot of overlap. I’d like to give you an opportunity to talk a little bit more about your own work and where it’s heading, framed not only in your specific disciplinary confines but at the broader transdisciplinary level of thinking about big questions related to empathy and how you have addressed them.

Perhaps it’s relevant in considering your response to think about the classic distinction between the known, the unknown, and the possibly unknowable (Gomory, 1995). That is, there could be some very important issues around empathy that have pretty much been resolved, and we’ll call them known. Perhaps in your own work you and your colleagues have substantiated them. There may also be very important questions coming up — again, broad, transdisciplinary questions — that are currently unknown. They may possibly be unknowable. I’d like to hear you identify those in the context of your own work and then we’ll get a little more speculative as we continue.

De Waal: My own constraint has been that in the science of animal behaviour, people don’t like to talk about emotions. Many of us have been trained in a very behaviourist perspective. You are allowed to talk about behaviour, but about behaviour only. What’s behind it remains unknowable, and so you are not allowed to even mention it. And so even though we all know, if you have a dog at home or if you work with primates like I do that animals can show very friendly and affectionate behaviour to each other or to us, the way we scientists describe it shouldn’t reveal anything of what may be behind it, such as ‘love’ or ‘loyalty’.

When I started talking about empathy in animals, there was resistance to that kind of terminology. My colleagues are much more comfortable with words like ‘altruism’, which they can objectively define. Altruistic behaviour is costly to yourself and beneficial to someone else. If you define it this way, you don’t need to talk about emotions. They feel more comfortable that way. As a result, we know extremely little about empathy in animals.

Some early experimental studies on empathy have been done. In one experiment, a monkey could pull a lever and by pulling the lever could get food for itself. Now, they started to couple the pulling of the lever with a shock to a neighbouring monkey. So you pull the lever, you shock your neighbour. Are you still

willing to do that in order to get food? And actually the monkeys are reluctant to do that, and some monkeys stopped doing it for many days and so they were literally starving themselves in order to avoid shocking somebody else. It is not the sort of experiment we would do nowadays, for ethical reasons, but it was done in the 1960s and turned out to be quite instructive (Masserman *et al.*, 1964).

If you watch primates, you see empathy reactions all the time. First documented by de Waal & van Roosmalen (1979), *consolation* is defined as friendly, reassuring contact directed by an uninvolved bystander at one of the combatants in a previous aggressive incident. For example, a chimpanzee goes over to the loser of a fight and gently puts an arm around his or her shoulders (see also de Waal & Aureli, 1996). There exist many more complex expressions of sympathy and helping, amply documented in the literature (see de Waal 1996, 1997). But other than a handful of studies on consolation in apes (monkeys do not seem to show the behaviour), there really is little else in the modern literature on animal empathy.

In the developmental literature, there is 25 years now of research on empathy in children, very interesting research which initially also was resisted but became well accepted (e.g. Zahn-Waxler & Radke-Yarrow, 1990; Eisenberg, 2000). And in the animal behaviour literature, it is a sort of struggle to get attention for it. Even though empathy responses are eminently measurable in both behaviour and physiology, there remains resistance to looking at it mainly because emotion is a dirty word in the study of animal behaviour. All of this will soon change, however, since neuroscience is coming up rapidly and is very much interested in emotions, including those of animals.

Proctor: So what I'm hearing you say is that you and your colleagues have taken what many considered unknowable and moved these questions into the realm of the unknown-but-potentially-knowable. And clearly you're learning more and more about these questions. Evan, do you find that in coming from your perspective there are similar broad issues, first of all thinking of what is now known, but then moving a little bit beyond to what is possibly knowable but not yet known, and what may be even a little more distant, possibly speculative?

Thompson: Speaking from my position as a philosopher, I would say that there are, particularly in the phenomenological literature, rather developed accounts of empathy as a kind of human experience. So that's in the realm of the philosophically known, or at any rate the phenomenologically known. Of course, philosophers overall don't like agreement as much as debate, and lots of questions remain, such as how to think about the relationship between empathy and morality. That question has been and continues to be a big issue in ethics and moral psychology. There are also all sorts of questions about empathy and 'theory of mind' (our ability to understand others as intentional agents) that are currently being debated in cognitive science. All this falls within the domain of the knowable, if not yet fully known.

In phenomenological philosophy, empathy is part of the much broader issue of

intersubjectivity, the experience of self and other and of social relations. We can think of empathy as the face-to-face or body-to-body aspect of intersubjectivity. What's particularly important here is the notion of embodiment or what phenomenologists call the 'lived body'. Now, with respect to classical phenomenology, what's remained largely unknown is the biological and empirical side of the story about embodiment. This part of the story is what Frans and others are bringing to the discussion. Their research enlarges considerably the known and the potentially knowable, because it enables us to link the phenomenological aspects of empathy to the biology of life and mind, which I think is a very important thing to do.

In the case of the unknown, at least from the perspective of cognitive science, we have the developmental possibilities of human empathy. These are basically uncharted by Western science and philosophy. But they have been extensively explored by other traditions of human knowledge, in particular by Asian traditions of contemplative experience and practice. For example, in my lecture yesterday and in my writings on empathy (Thompson, 2001; 2005), I've called attention to the role that contemplative practices of empathy, compassion, and what we would call emotion regulation play in the Buddhist tradition. The cultivation of compassion in this tradition is especially important. Compassion has to be rooted in empathy, in an understanding of the other's predicament as a sentient being, and then builds from there to cultivate loving kindness, concern for the welfare of others, and compassion, which is defined as the wish that others be relieved from suffering.

The traditional Buddhist image for loving kindness is the mother-offspring relation, which, as Frans and other scientists have shown, is the core or seed of empathy in social animals like primates. Nevertheless, we simply don't know, from the perspective of current science and philosophy, what the full developmental possibilities of human empathy are. We also don't know the developmental possibilities for contemplative mental training, by which I mean practices that cultivate attentional stability and mental well-being. We don't know how such practices change or affect the way the brain works, and how they affect the physiological regulation of our whole body. We're beginning to see some evidence — for example, that mindfulness meditation enhances immune function (Davidson *et al.*, 2003), and that compassion meditation in long-term Buddhist practitioners is associated with dramatically different patterns of brain activity than in novices (Lutz *et al.*, 2004) — but really we know hardly anything in this area. We also don't know anything about the behavioural implications of these practices for everyday human social relations. I'd say all this is knowable, but at the moment unknown.

Finally, at the uncertain borderland between the potentially knowable and the unknowable is the whole issue of the nature of consciousness and its relationship to the brain and the body. This is, of course, a matter of huge debate in science and philosophy today. I'm not a 'Mysterian'; I don't think that the nature of consciousness is closed to human understanding. But I do think that understanding consciousness will require forms of investigation and scientific accounts that

have an irreducible phenomenological aspect. My own view is that it's not really going to be possible to make headway on this problem of understanding the nature of consciousness without drawing on empathy in two ways: One, I think it's not possible to study consciousness without making use of empathy. To recognize or acknowledge another being as conscious — whether it be a monkey, ape, dolphin, or human being — is already to rely on empathy. And in the case of research with human subjects, the whole intersubjective context of giving subjects instructions to follow, asking them to make reports describing their experience, and then interpreting those reports necessarily involves empathy. But I also suspect that consciousness — or perhaps we should rather say subjectivity — is saturated by empathy in the case of human beings and animals with complex social lives. One could even argue that empathy is in certain ways constitutive of consciousness (see Thompson, 2001; 2005).

De Waal: Can I ask you something about that? Would you then not predict that if our consciousness is sort of constructed from interaction with others, including empathic interactions, that Kaspar Hauser, or other children raised without human contact, or little human contact, that they have a different level of consciousness?

Thompson: Well, in developmental psychology there are models of levels of consciousness, starting from minimal consciousness and then including various recursive elaborations of minimal consciousness, such as self-consciousness and reflective consciousness (Zelazo, 2004). It seems reasonable to think that socially and empathetically deprived individuals would have deficits in consciousness at these recursively constructed levels. Of course, already in these individuals you have the natural history of their being social animals. But their development is such that there are various disorders having to do with self- and other-understanding in cognition and emotion. This would suggest that their particular forms of consciousness or subjectivity are different.

But a more fundamental point about consciousness is that it is in its very nature open to otherness, to what phenomenologists call 'alterity'. The tendency in philosophy since Descartes is to think of consciousness as a kind of closed, solipsistic sphere that is all 'I' with no reference to the other. You have to work out from this 'I' to get to the other. But phenomenologists argue that consciousness in the most fundamental sense of pre-reflective self-awareness already has as part of its structure a reference to otherness. Consciousness is in this way 'intersubjectively open' (see Zahavi, 1999; 2001).

De Waal: Yes, the tradition in the West is not like that. Because Rousseau and Descartes and so on believed in self sufficiency, and so the idea that we need to connect to become who we are, so to speak, is not a very Western thought, because we like individualism too much. We are each our own being, and we stand alone, basically.

Proctor: So that had a direct influence on philosophy, but what about primatology? Was there a kind of individualistic assumption about primates as well?

De Waal: In evolutionary biology, there's a very strong emphasis on the individual, which I consider a Western bias, even though most evolutionary biologists just look at it as a logical theoretical perspective. The bias is to look at individuals as competing with each other, and each one tries to get the best deal, and there's no reason for them to connect, because basically all I do when I connect with you is try to exploit you. I need to advance my own interests, and I don't care much about yours. And that's sort of the view within evolutionary biology in general.

Primatology was sort of an exception to all of that, because we had, very early on in the 1970s, people who developed a deep interest in social relationships. And that's because if you look at a group of primates, say baboons, you cannot miss that. They're grooming each other, they're fighting with each other, they're working out some sort of hierarchy, the juveniles play with each other. They obviously have friends and enemies; and it's very hard to overlook that there are social relationships. And so within primatology, social relationship became early on a concept of great importance. And it's only now that people who are studying other animals are catching up. They are finding that for hyenas, dolphins, or wolves, that concept can be very useful as well, because you can see it there, as well.

And so individual recognition was first done by primatologists. Many jokes were made about it; we gave names to the animals: this is Suzy; this is Mike. That was considered too anthropomorphic, but the primatologist did it nonetheless. When Kinji Imanishi, the pioneer of this approach — who interestingly enough was not Western — visited USA campuses to explain his work, his audiences refused to believe that Japanese primatologists were able to recognize all those monkeys. They thought they were making this up (de Waal, 2001). Now, of course, everybody is doing it.

Connectivity between individuals was recognized early on in primatology. But we had the struggle against general evolutionary biology, which had this ultra-individualistic perspective and, you know, the selfish-gene perspective, which didn't really promote an interest in how societies are constructed out of shared interests. One example of this period was a famous paper by prominent evolutionary biologists about why it is that animals don't kill each other when they fight, which they indeed rarely do. Most of the time they work out something without killing each other. The only reason these biologists could come up with was that animals don't kill each other, because if they'd try their opponent would surely fight for its life. Trying to kill another is too dangerous, they said, resulting in injuries also to the one who does the killing. That's the only reason they could think of. And they worked that out with fancy mathematics, resulting in a very famous paper (Maynard-Smith & Price, 1973).

To me it was a very strange statement as in primate groups we often see fights

between unequal parties, such as a large against a small male. Even though the risk of injury to the larger male is absolutely minimal, there are still major inhibitions at work. In social animals there is much more going on than injury risk: these animals depend on each other, otherwise why would they even live in groups? It is this mutual dependency and the overlapping interests it produces that holds aggression in check (de Waal, 2000).

Mutual dependency was not part of evolutionary thought at the time, however.

Proctor: That's interesting. So what you're saying is that in the object domain of primatology, behaviourally you see tons of social relationships. It's obvious. But in attempts to explain the motivation behind those social relationships, if one invokes evolutionary biology, one comes back to —

De Waal: The individual.

Proctor: — a more individualistic set of hypotheses, which to you are not —

De Waal: If wolves live in groups, it's because that's the only way for them to bring down large prey, and they depend on each other. So for wolves, they cannot kick everybody out, because then they are going to be left alone. A lone wolf is not a good wolf. He's basically hunting mice, which is suboptimal prey for a wolf.

Proctor: I'm wondering, Evan, if the reason that this bias in thinking about consciousness has possibly taken longer to overcome within philosophy and psychology is because we're not studying wolves, or primates, or groups outside of ourselves. We're studying, effectively, ourselves, and we think of studying that almost always from the inside. And again, Descartes set this kind of template upon which we've subsequently laid, which can constrict our view and obscure the obviousness of the social relations we're enmeshed in. So you're trying, it seems, to remind us of the obvious, but it's more difficult for us to see that from the inside.

Thompson: I don't think the problem is that we're studying ourselves, or that we're studying ourselves from the inside. On the contrary, until very recently cognitive science tried to study the mind almost exclusively from the outside and gave basically no attention to phenomenology and the experience of cognition and emotion. Cognitive science grew out of the behaviourist reaction to introspectionist psychology, and introspectionist psychology was already taking a rather limited approach to consciousness. Certainly introspectionist psychology didn't in any way make thematic things like empathy or intersubjectivity. Behaviourism, of course, said that one wasn't supposed to talk about any internal processes at all, and certainly not anything having to do with experience and subjectivity.

Then when cognitive science came along in the form of the cognitive revolution, although you were allowed again to start talking about internal processes, there was still no interest in experience whatsoever. The model for talking about

internal processes was the computer. Here the guiding idea is that of an algorithm that is in principle independent of any material realization or embedding in a social context or anything having to do with emotion or development. Cognitive science has had to rediscover things like empathy and enculturation partly as a result of the breakdown of the computer model and having to confront its limits. There are many people who are still wedded to the computer model, but I think that the field now, as opposed to, say, thirty years ago, or even twenty years ago, is one in which the realization is becoming stronger that it's not going to be possible to understand human mental life without connecting it to sociality and emotion and embodiment.

De Waal: So that's a struggle very similar to my field. For example, recently a textbook was produced on *Cognition, Evolution, and Behavior* (Shettleworth, 1998) — big, like eight hundred pages — and I look in there and don't see any reference to 'empathy' or 'cooperation'. All I see is how animals solve individualistic problems. Like how long they remember where they have hidden nuts, or how do they learn to recognize predators. That sort of the thing. But the whole social domain, which we in primatology consider the ultimate domain for intelligence, because that's where we think higher intelligence in the primates started really evolving because it's so complex, is totally ignored. But the social problems are the complex ones, really. Knowing where the food is hidden is a little thing compared to who do you want to be friends with in particular situations.

Thompson: I think in cognitive science and also in philosophy the view that is still in some ways prevalent, although it's changing, is that the individual mind is in the head, that is, that my mental capacities, my cognitive capacities, are locatable within the confines of my skull. But clearly for social animals, and especially for social animals like us, where we have the powerful impact of language and culture and enculturated development, intelligence and cognitive capacities are distributed among individuals in groups, and depend on various kinds of artifacts and symbolic technologies and resources. So the idea that cognition is distributed and has its own social or collective level of organization that needs to be analysed in its own right is something that cognitive scientists and philosophers are getting increasingly interested in.

Proctor: I'd be interested in your perspective on this notion of a distributed intelligence.

De Waal: I never think about it that way, but animal culture is becoming a hot area, in the sense that there are studies showing that, for example, one chimpanzee group in the field cracks nuts with stones, and there is another chimpanzee group that has nuts and stones available but is not doing anything with it (Whiten *et al.*, 1999; de Waal, 2001; McGrew, 2004). And so we have these cultural differences in habits, in skills, in behaviour, which makes indeed that a group of chimpanzees has a collective knowledge, and a young chimpanzee growing up in a group like that absorbs all that knowledge. And we are at the moment at the

very beginning stages of our understanding of that, and so people are interested in how is knowledge or behaviour being transmitted. But it's the same sort of idea, where in the old days, when I was a student, we looked at animals, we were interested in what we called species-specific behaviour. So what is the typical behaviour of a baboon? What is the typical behaviour of a dog? But now we're getting interested in these group specific behaviours, which relate very much to that issue of a collective mindset and shared knowledge in a group. So there's the same potential of exploring these issues, even though it's at a much simpler stage than in humans. But that's also the attractive part, because in order to understand how collective knowledge operates in humans maybe we need to first study these simpler systems.

Proctor: To what extent are there significant interactions among inter-specific groups, so that there are heterogeneous groups? And how does that raise questions about how groups of specific species perceive the other and engage with them?

De Waal: You mean other species?

Proctor: Yes.

De Waal: Well there are some mixed species. Mutualisms. So, for example, ants exploit aphids.

Because one species may be better at detecting predators, and the other species benefits from that. Monkeys who associate with another species recognize the alarm calls (Zuberbühler, 2000). And so, yes, we do have some transmission going on between different species. Of course, there's also many hostile relationships between species, which are maybe less relevant, but there are plenty of those, as well.

Proctor: Well, I think they are relevant, and perhaps I'll turn to that. I'd like to throw in what to me is the hard problem of empathy, which is the reality of what you could call the challenges of outgroup empathy. Or we could say the decided selectivity of empathy. I'll just give us one example here. The recent *Science and Theology News* I'm looking at from February 2005 speaks of a 'Wave of generosity', subtitled 'Tsunami relief response stretches bounds of selfish-gene theory'.² We know that there was a massive wave of giving, but now less than two months after the tsunami we don't hear a whole lot about it. And in fact what we do hear, coming out on the BBC just this morning,³ was a very important claim that 'Africa loses aid to tsunami victims....The UN's World Food Programme says countries in Southern Africa suffering after several years of drought have been particularly badly hit' by a big drop in funding, which has been directly attributed to the tsunami efforts. Now the tsunami is one of many examples we can give of the outpouring of human empathy in a way that is admirable, but yet

[2] See www.stnews.org/archives/2005_february

[3] See http://news.bbc.co.uk/go/pr/fr/-/2/hi/programmes/file_on_4/4258443.stm

still raises questions about its boundaries. How do we take the research tools that we have coming out of neurophenomenology and cognitive psychology and think about this very hard question within empathy?

De Waal: Well, you know, in biology we would usually argue that morality and empathy clearly evolved as an in-group phenomenon. There is no reason, unless you have a stake in another group somehow, to care about another group. You might have a stake if you interbreed, for example. And so for example bonobo groups, a close relative of the chimpanzee, there is a lot of sexual mingling between bonobo groups, meaning that in the other groups live relatives of you because you may have fathered children there, or your own daughters have moved over there, and that puts limits on hostility between groups. You cannot wipe out groups in which your relatives live because from an evolutionary perspective that's counterproductive.

But apart from such constraints, empathy and morality are best looked at as in-group phenomena. It's a stretch to apply them to outgroups. That is a fragile effort from an evolutionary perspective. It doesn't mean we, modern humans, shouldn't work on that, but it is not going to be easy. The more mingling you get between races and ethnic groups and nationalities, the more it becomes possible to extend the circles of morality, because then it begins to fit the mould of our behaviour.

And so there is this debate going on: where should we spend our money, and what can we do about poverty in the world, which is very much a debate along these lines because the poverty is high in places different from us. And helping far-away places doesn't come naturally to us. So for example, the tsunami aid that you mentioned was very substantial from Sweden and Norway, which makes a lot of sense because there were many Scandinavians on vacation in Thailand, present on the scene, and so it's sort of interesting that some countries were willing to give more because they were somehow connected with it. This means that the more the world becomes interconnected like that, the more there will be a tendency to help out others.

Proctor: What about this, Evan?

Thompson: What your question actually makes me think of is a need, I think, to be a little bit careful in how we think about empathy. Empathy involves different aspects, as I was mentioning before, and some are basic affective and motor resonances and mimics, and some are cognitive perspective-taking abilities. These aspects can come apart in various ways, in ways that do not further the moral aims of empathy. The extreme case of this is, say, a torturer, who is able to inhibit or compartmentalize the affective resonance with the other, or the motor mimicry with the other, but still has the cognitive abilities in place to understand the predicament of the other, and in that way is actually an effective torturer in manipulating other individuals. So empathy is tricky, and empathy can go awry in those ways. I think that points to two important things. One is that empathy may be a precondition for entry into the moral or ethical domain, but the moral or

ethical domain is not reducible to empathy. You may need empathy to be able to enter into the sphere where you can contemplate the importance of justice or fairness or respect for another. It may be that you can't really know what respect for another means unless you're capable of some empathetic understanding of them as beings deserving of respect. But that doesn't mean that justice, fairness, and respect for another are reducible to empathy. They have standing in their own right, and that's an important point not to lose sight of. And then, secondly, empathy in the sense of a cognitive understanding of the predicament of another can become decoupled from things like compassion and loving-kindness. You need empathy for these, but they also have to be fostered in their own right. Of course, in the case of complicated social policy matters like tsunami relief and aid to Africa there are all sorts of other considerations that enter into the picture.

Proctor: Well, your responses suggest that even the way I framed the question had a presumption — the presumption that there can be some sort of unlimited empathy or unbounded empathy, and that doesn't generally exist —

De Waal: Not really —

Proctor: Evan, you're talking about empathy being an important precondition, but not a sufficient condition. One thinks about certain theories of justice and the need to add that to what comes out of an empathic understanding. And Frans, you're talking about where empathy comes from, and that perhaps it doesn't make a lot of sense to think about empathy in this universalistic sense, where we care equally about any thing or any being.

De Waal: I don't think we can afford that, in the sense that you need to think about yourself and your immediate family first. Let's say, in an extreme case, let's say that I'm the father of a large family in a poor neighbourhood. And I find some bread, and instead of bringing the bread back to my own family, I give it to the first family I encounter, who is also hungry. I don't think my family would accept that. They would consider that I have done them injustice by doing that. And so there are all sorts of other considerations, and I believe strongly that empathy is like a circle that builds out, and so you have obligations to the inner circles first and foremost (de Waal, 1996).

We live now in very wealthy places, where we can afford to start looking beyond the borders. We have it so good, let's give beyond it. That doesn't mean we have to neglect ourselves and our immediate families, but I think we have so much that we can start doing that. That's why this whole issue of universal morality is coming along, because we are in a situation where we can afford doing that. And so that's what I meant when I said it's a fragile effort. If, let's say, the whole economy is wiped out in this country tomorrow by some disaster, then we're not going to send help to other countries, I'm sure. So, current help is based on the fact that we have it so good.

Proctor: That's interesting. You're offering a material notion of well-being at the inner circles that leads then, perhaps, to the ability to reach out to outer circles. But we know that our notion of material well-being has a strong cultural component too — what it takes to make my family comfortable to the point where I feel like I have a spare twenty dollars, or a hundred dollars, and I can donate it, or I can take my time and get involved beyond the concerns of my children. So I can see some complications in how that expanding-circle theory suggests that people start with what appears to be a very strongly-rooted biological capacity for empathy in the inner circles, and consider those circles to be satisfied to the point that they can move on.

Evan, how do you understand this conundrum, where many would say, 'I'm taking care of what I have to' — my family, my job, and so on? To a certain extent that's undeniable, in fact defensible, but one can also say: 'I think you've got quite a buffer there, I think things are not that bad.' What about the kinds of work in contemplative traditions on how one builds compassion in the broader sense?

Thompson: It's true that certain contemplative traditions try to develop a universalistic ethos of compassion or love. The idea of universal love is central in Christianity, of course. In Mahayana Buddhism, one speaks of compassion for all sentient beings. But in practical terms that ethos of compassion has to start from a cultivation of a sense of well-being for oneself, so that one is effective and ready to aid others. Another example is Confucian philosophy, which talks about benevolence or humaneness starting in the family and then radiating increasingly outwards to other social relations. The contemporary Confucian philosopher, Tu Wei-ming, has written about this in his books (Tu, 1985). These traditions are all different in various ways, but my point is that even in these contexts the radiating, circular model may still hold. I find it very difficult to imagine that framework not being in place in one way or another.

I think maybe the difference for us — by 'us' I mean modern, pluralistic societies — is that we have the possibility of making room for different kinds of practices of empathy and compassion. For example, I think we need to give a strong place in our society to people who cultivate advanced contemplative states of empathy and compassion. We should foster them so they're able to bring the benefits of that kind of mental training to those of us who lead more ordinary lives. Having individuals with that kind of skill present in and respected by our society, and having those skills developed as part of our education, could have all sorts of benefits. Traditionally that kind of advanced mental training has taken place in a monastic context, but I'm not convinced that it must or that monastic institutions are the best way for our society to pursue this. I think there are many strategies and possibilities that can be pursued, and that it doesn't have to be monolithic.

Proctor: We're coming to the close of our interview here, and I wonder where we are in thinking about the overlap from your two scholarly traditions in

moving forward in understanding empathy. You have your research trajectories, I think, fairly well carved out. What are the areas of overlap that are important? Of course I'm speaking to you as individuals who have done a lot of work in many traditions, who publish in philosophy as well as psychology, who think about neuroscience as well as philosophy, and so you're open to these sorts of overlap. But where does philosophy help the very concrete empirical questions that, Frans, you are asking, and where do the empirical studies help the very large, perhaps fairly abstract, conceptual, and phenomenological questions that, Evan, you are asking?

De Waal: Well, I think philosophy is not monolithic, so — in fact there's no two philosophers who completely —

Thompson: Who can agree on anything!

De Waal: I cannot say that science is monolithic, but in science we have rules of evidence that we can sort of agree on. So when I look at philosophy I see strands of philosophy that I totally disagree with. For example, the Kantian perspective on morality has always bothered me because it is a very top-down, cognitive type of perspective, and so I was very glad to discover that there are very different ways of thinking about these things. When I started working on the evolution of morality, I was glad to discover authors in philosophy, such as the Scottish Enlightenment, with more emphasis on the building blocks of morality, including the role of the emotions. Neuroscience is also developing an interest in those issues, and if you put people in a fMRI scanner and ask them moral questions, we know now that these moral dilemmas you present to people activate very ancient parts of the brain (Greene & Haidt, 2002). So it's not all frontal lobe-type high-level Kantian thinking that's going on. The basic emotions are involved in this kind of decision making, so I see in the work of Evan and philosophers like that, I see a connection, sort of support for the view that things must have started simple at the basic emotional level and have been building up on top of that, so I see a lot of continuity there.

Proctor: How about from your end, Evan? Again, I know that your work is already quite integrated, but the thrust of your work is philosophical —

Thompson: I'm trying to think of the most general way to characterize it, but for me what I find inspirational or motivating is to recover something that was lost in philosophy since Descartes, and that is the connection of the mind to life in the broadest sense, that is, to our being living beings, biological organisms that are social and intersubjective animals, and so on. I'm very captivated by the idea that we can have an enriched and deeper understanding of life when these phenomenological ideas about empathy lead us towards recovering aspects of our existence as bodily beings, and that we can then look to science to give us a rich account of how our bodily existence is an expression of the natural history of life as well as our enculturated form of development. I see this approach as

emphasizing the continuity of life and mind, and I think this approach can be extended into areas of contemplative experience. From the point of view of certain contemplative traditions, there may be resistance to or disagreement with this embodied perspective, and that's an open question, something for dialogue. In any case, for me the motivation in the most general terms is the understanding of life in this broad biological and phenomenological sense.

Proctor: Well, thank you again, Evan Thompson and Frans de Waal.

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