

In his novel [Abbé Mouret's Transgression](#) (*La faute de l'abbé Mouret*, 1875), [Emile Zola](#) has a young priest, Serge Mouret, and a teenage girl, Albine, fall in love with each other without any understanding of what is happening to them. Neither of them knows anything about sex – they don't even seem to know that there is such a thing. So, Zola has a long and lyrical account of how paintings in the house they inhabit, and the luxuriance of nature around them slowly, help them discover what to do:

“It was the garden that had planned and willed it all: For weeks and weeks it had been favouring and encouraging their passion, and at last, on that supreme day, it had lured them to that spot, and now it became the Tempter whose every voice spoke of love. From the flower-beds, amid the fragrance of the languid blossoms, was wafted a soft sighing, which told of the weddings of the roses, the love-joys of the violets; and never before had the heliotropes sent forth so voluptuous a perfume. ... From the meadows came fuller notes, the million sighs of the sun-kissed grass, the multitudinous love-plaints of legions of living things, here and there softened by the refreshing caresses of the rivulets, on whose banks the very willows palpitated with desire. ... The grasshoppers grew faint with the passion of their chants; the butterflies scattered kisses with their beating wings. The amorous sparrows flew to their mates; the rivers rippled over the loves of the fishes; whilst in the depths of the forest the nightingales sent forth pearly, voluptuous notes, and the stags bellowed their love aloud. Reptiles and insects, every species of invisible life, every atom of matter, the earth itself joined in the great chorus. It was the chorus of love and of nature-the chorus of the whole wide world; and in the very sky the clouds were radiant with rapture, as to those two children Love revealed the Eternity of Life.”

Actually, the last sentence of the English version is not a translation of the French original – which is ‘hotter’ throughout – and replaces a couple of paragraphs that the English translator must have cut for the sake of public morality. Here they are:

“... Ce fut l'arbre qui confia à l'oreille d'Albine ce que les mères murmurent aux épousées, le soir des noces.

Albine se livra. Serge la posséda.

Et le jardin entier s'abîma avec le couple, dans un dernier cri de passion. Les troncs se ployèrent comme sous un grand vent ; les herbes laissèrent échapper un sanglot d'ivresse ; les fleurs, évanouies, les lèvres ouvertes, exhalèrent leur âme ; le ciel lui-même, tout embrasé d'un coucher d'astre, eut des nuages immobiles, des nuages pâmes, d'où tombait un ravissement surhumain. Et c'était une victoire pour les bêtes, les plantes, les choses, qui avaient voulu l'entrée de ces deux enfants dans l'éternité de la vie. Le parc applaudissait formidablement.”

But I am digressing.

What is puzzling is that Zola thought he had to invent a complex progression of suggestive events in the house and in the park – it goes on pages after pages – in order to explain how a male and a female attracted to one another would end up fornicating without any prior instruction. After all animals do it without instruction, human ancestors did it without instructions. I guess, Zola's idea – and everybody else's – must have been that when language and culture appear on the scene, instinct is just wiped out. Still, even without instinct, Serge and Albine were living in the country and should have witnessed plenty of animal fornication. Emile Zola, by the way, was the pope a literary

'Naturalism', showing how polysemous this word can be.

Just as to Zola and to his intended readers it may have seemed obviously true that uninstructed humans could not conceive of copulation, it seem clear to many that uninstructed young children if they are at all aware of death, are not equipped to think of it as the cessation of life and as a permanent thing. From Jean [Piaget](#) to Susan [Carey](#), psychologists have argued that some important conceptual change has to take place for children to understand death properly. Before that, they might confuse dead and inanimate, or think of death just as a form of deep sleep, or, in the case of people who they are told have died, they may think of death as a kind of departure, and so on.

A fortiori, non-human animals should not be expected to understand death. Philosophers have said so. For instance, Martin [Heidegger](#) writes - but he would, wouldn't he? -, "Mortals are they who can experience death as death. Animals cannot do so. But animals cannot speak either. The essential relation between death and language flashes up before us, but remains still unthought." (On the Way to Language 107-8).

More seriously, [Marc Hauser](#), to whom we owe much in our understanding of animal psychology, writes:

"I suggest that although animals have the mental tools to distinguish between living and nonliving things, to use object motion to generate expectations about behaviour, and to have emotional experiences about their interactions with the physical and psychological world, they lack the moral emotions or moral senses. They lack the capacity for empathy, sympathy, shame, guilt, and loyalty. The reason for this emotional hole in their lives is that they lack a fundamental mental tool: self awareness.... If my claim about self-awareness is correct, then animals must also lack a deep understanding of death. To understand death as a system of beliefs, as opposed to simply responding to dead things, individuals must have a sense of self-awareness"(Marc Hauser. 2000: [Wild Minds: What Animals Really Think](#)).

It is in the light of such considerations that apparently grieving behaviour among chimpanzees is so puzzling. In a [post](#) last November I presented striking anecdotal evidence published in the National Geographic Magazine that chimpanzees may grieve for their dead, an idea that to the old anthropologist in me is almost blasphemous (disclosure: I make it a rule to have at least one blasphemous thought every day before breakfast). Now in the April 27, 2010 issue of [Current Biology](#) (Vol. 20-8) two articles provide further and better evidence of chimps' attitude towards their dead. In "Pan thanatology," James R. Anderson, Alasdair Gillies, and Louise C. Lock describe

"the peaceful demise of an elderly female in the midst of her group. Group responses include pre-death care of the female, close inspection and testing for signs of life at the moment of death, male aggression towards the corpse, all-night attendance by the deceased's adult daughter, cleaning the corpse, and later avoidance of the place where death occurred. Without death-related symbols or rituals, chimpanzees show several behaviours that recall human responses to the death of a close relative."

In "Chimpanzee mothers at Bossou, Guinea carry the mummified remains of their dead infants" Dora Biro, Tatyana Humle, Kathelijne Koops, Claudia Sousa, Misato Hayashi and Tetsuro Matsuzawa write:

"In 1992, Matsuzawa reported the death of a 2.5-year-old chimpanzee (Jokro) at Bossou from a respiratory illness. The infant's mother (Jire) carried the corpse, mummified in

the weeks following death, for at least 27 days. She exhibited extensive care of the body, grooming it regularly, sharing her day- and night-nests with it, and showing distress whenever they became separated. The carrying of infants' corpses has been reported from a number of primate species, both in captivity and the wild – albeit usually lasting a few days only – suggesting a phylogenetic continuity for a behaviour that is poignant testament to the close mother-infant bond which extends across different primate taxa. In this report we recount two further infant deaths at Bossou, observed over a decade after the original episode but with striking similarities.”

One way to go, suggested in particular by Hauser, is to question not the evidence of grieving-like behaviour in chimpanzees and other animals, but its interpretation as grieving proper. And since it is not even clear what grieving proper is, I am quite tempted to go this way and to say, “Fascinating behaviour, but we just don't know how to interpret it.” In fact, I am not just tempted to do so, I do do so.

Still, there is a challenge here that may be worth attending to some more.

What is it that animals don't understand about death? For that matter, what is it that children don't understand? In a landmark paper, “Children's understanding of death as the cessation of agency: a test using sleep versus death” (Cognition, 2005, 96: 93-108 – available [here](#)), [H. Clark Barrett](#) and [Tanya Behne](#) argue:

“An important problem faced by children is discriminating between entities capable of goal directed action, i.e. intentional agents, and non-agents. In the case of discriminating between living and dead animals, including humans, this problem is particularly difficult, because of the large number of perceptual cues that living and dead animals share. However, there are potential costs of failing to discriminate between living and dead animals, including unnecessary vigilance and lost opportunities from failing to realize that an animal, such as an animal killed for food, is dead. This might have led to the evolution of mechanisms specifically for distinguishing between living and dead animals in terms of their ability to act. Here we test this hypothesis by examining patterns of inferences about sleeping and dead organisms by Shuar and German children between 3 and 5-years old. The results show that by age 4, causal cues to death block agency attributions to animals and people, whereas cues to sleep do not. The developmental trajectory of this pattern of inferences is identical across cultures, consistent with the hypothesis of a living/dead discrimination mechanism as a reliably developing part of core cognitive architecture”

But of course! What is important, in fact vitally important, to understand regarding the death of a potential prey or potential predator, or for that matter, of any agent one is interacting with, is that death is permanent cessation of agency. Not only children should understand this, but also other animals. In the case of social animals, cessation of agency in a conspecific they normally interact with should be well worth registering.

I don't know what emotional reaction, if any, we might expect, say, of a chimp when her child or a partner ceases being an agent, but if they understand death this way, simply this way, the question makes sense, and we should look to these ethological observations not to ask: Are they grieving like we do? – but: How are they coping with what they may well understand as a major change in their close social relationship?

Nothing there suggests that chimps understand death like we human adults do - and we don't all understand it in the same way anyhow. But wait, this understanding evidenced by Clark and Behne in 4-year-olds and that we have some reason to attribute to other animals, is it mistaken? Is it badly wanting? If so, how so? Maybe so much has been pegged on death in human culture that culturally informed adult notions of death are badly confused. For instance, if you believe in afterlife, then death is not exactly cessation of agency. If you posit like Heidegger that there is an "essential relation between death and language" you must conclude - and he did! - that animals don't die, they merely 'perish'. If you think, as Marc Hauser does, that a deep understanding of death has to be moral, then the death of, say, a pig and that of a human are events that differ not only in relevance to us, but in kind (unless, that is, you grant pigs a proper moral status - and I am not denying that what humans do with the death of another human is different in kind from what they do with the death of an animal).

Yes, the more I think of it, the more adult understandings of death seem to me typically confused, 'semi-propositional' if you like the term (*façon de parler*, nobody does), culturally rich, yes, but not something we should be proud inculcating our children. I know, prior to full inculcation, children show signs of confusion: They may believe that dead people have departed - but isn't this just partial understanding of the way adults speak of death? -, they may talk of death as something you recover from - but that is how you speak of death in children's games and now in video games: more confusing cultural input -, and they will say that an inanimate object is dead, and that is just confused. But still, it might be that most or all of the confusion comes from cultural input and that young children and non-human animals have an intuitive sense of death that is not particularly confused and that is indeed quite reasonable.

I am not sure about young children's intuitive understanding of sexual relationships. They may not have any yet, but I bet it would come to them quite intuitively with adolescence and opportunities and without instructions, as it did surely for our ancestors only 10,000 generations ago (or else we would not be here) and as it would have done for Serge Mouret and Albine if Zola had let them be. What happens however is that children are provided with rich cultural inputs in matters of sex as well as in matter of death, and thus develop expected forms of cultural confusion.