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In 1621, writing under the pseudonym ‘Democritus Junior’, the Oxford clergyman and author Robert Burton (1577-1640) produced what is perhaps the most famous early modern exploration of self, The Anatomy of Melancholy. At the centre of Burton’s discourse is a Renaissance commonplace: ‘Nosce teipsum’ – know thyself. But Burton’s call for self-knowledge comes in a particular form. Men, he writes,

... are sufficiently informed in all other worldly businesses as to make a good bargain, buy, and sell, to keep & make choice of good Hawk, Hound, Horse, etc. but for such matters as concern the knowledge of themselves, they are wholly ignorant and careless, they know not what this Body and Soul are, how combined, of what parts and faculties they consist, or how a Man differs from a Dog.

The final phrase here – ‘how a Man differs from a Dog’ – seems to be mere hyperbole: an extreme rendition of a casual human carelessness. But Burton’s claim is a familiar one. In the early modern period the description of many vices – heavy drinking, gluttony, lust and so on – were represented as having the power to transform humans into beasts. These representations would seem to play into a theological and moral conceptualisation of the world, rather than a ‘zoological’ one. We might think that ‘Atheistical dog’, for example, a recognisable insult in the period, is not a phrase implying real possibility of a species crossover. However, an analysis of early modern constructions of perception and the role of the passions, reveals something slightly different. Here it is possible to trace a logic in which humans can actually become animals through their actions. The starting point is often the brain, which, in the human, was understood to be the bodily seat of reason, the home of the capacity that distinguished man from dog. Such simple anatomical differentiation had its foundation in the classics – Aristotle, had proposed man as the ‘rational animal’. But in early modern discussions of perception and movement, an alternative reality emerges in which the oppositions human/animal and reasonable/unreasonable were never so clearly polarised. Instead there was a dangerous ‘grey area’ into which many, too many, so-called humans must be placed. In fact sometimes the difference between a man and a dog, as Burton said, is hard to find.

All animals, humans included, do not exist in a vacuum; they exist in the world, and have to make sense of that world in order to act within it. In early modern thought perception was understood to be a very bodily thing. The foundation of the ideas about the relationship with, and experience of, the external world was classical. Aristotle’s ideas came down to thinkers like Burton via medieval writers such as Avicenna and Albert the Great, who presented the brain as a clearly structured object, and in The Anatomy of Melancholy, Burton proposed that the brain, ‘a soft, marrowish, and white substance,’ was made up of ‘two parts, the fore and hinder part’. He stated that the fore part of the brain contained three ventricles, and the hinder part, one. The left and right of the three ventricles of the fore part were home to the common sense, while the middle,

... is a common concourse and cavity of them both; and hath two passages; the one to receive Phlegm, the other extends itself to the fourth ventricle, or the hinder part, in this they place Imagination.

Robert Burton (1577-1640), author of the compendium The Anatomy of Melancholy. The first edition appeared in 1621, but he continued to revise the text until his death.
This 'fourth creek,' or 'Cerebell' is 'the place where they say memory is seated'. The brain, then, is structured to access, translate, contemplate and recall the material world. It is the place where external forms enter the interior of the mind.

Burton and other early modern writers suggested that the physical world entered the brain through the mouth, the nose, and touch, the eyes and the ears. These various sensory forms made an impact first on the largest part of the brain's front ventricle, the 'common sense'. For Nicholas Coeffeteau, writing in 1620, it was in the common sense that the 'forms which are sent unto it from other senses' 'flow' into the brain. In 1631 Daniel Widdowes proposed that this faculty 'more fully distinguisheth sensible things'. To Widdowes, the common sense first brings outer forms into the mind, but does so only when those forms are present to the senses. It requires an external form to engage with: it needs the action of the senses to make its common sense.

But the common sense was also thought to have another function: it was where actual forms are translated into ideal forms. Coeffeteau noted that the common sense not only receives the forms which the other senses send unto it, but it also compares them, discerns them, and judgeth of them; the which the particular senses cannot do, for that they are limited and tied to their particular objects, and never exceed the bounds thereof.

The common sense, then, was where shape, texture, smell and so on are brought together to reform the representation of the whole external object in the mind. The eye on its own can only see, the nose, only smell: the common sense was thought to put the messages of all the individual senses together.

From the common sense, perception, in Burton's model, travelled through to the middle ventricle of the forepart of the brain - the imagination - where it became possible for an object to be contemplated in its absence (as in day-dreaming) and for the creation of compound images, things that have never been seen (such as what a human-dog crossbreed might look like). Finally, the perceived object could enter into the rear ventricle of the brain, the memory. There it would be stored for future reference.

So far, the capacities of the brain outlined here were shared by humans and animals. But, despite the similarities of the structure of humans' and animals' brains, a distinction was made based on the animal's relationship with time. According both to classical and early modern arguments, animals live only in the present. The sheep, so this argument goes, needs the wolf in front of its eyes to know from memo-

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_A man is what he eats?: Gluttony, from 'The Seven Deadly Sins' by Hieronymus Bosch._

*The History of Four-Footed Beasts* (1607) outlined the physical characteristics of dogs, and compared their humours with those of Man (describing those of dogs as hotter and drier).
Dissection of the brain from Vesalius' *De Humani Corporis Fabrica* (1543), showing the corpus callosum that links the two hemispheres of the brain.

ry that the wolf is to be judged as dangerous, whereas a human can recollect the intention of a wolf in its absence, and can feel fear on the basis of an imagined animal. As Gulielmus Gratarolus put it in 1562: humans can remember 'w'out ye presence of ye object', while 'with the presence of the object [such remembrance] is also found in brute Beasts'. The source of this distinction is Aristotle's *De memoria et reminiscencia*. Aristotle here distinguished between memory, as a form of perception that animals share with humans, and recollection, which is only available to humans, as it is 'a sort of reasoning'. This latter point is crucial, as this form of memory was not understood to be undertaken with the brain – a bodily organ. Rather, it was the property of the inorganic soul.

As Katherine Park and Eckhardt Kessler have shown (1988), there was a crucial difference between the 'organic' and the 'inorganic' soul in this period. Following ideas proposed in Aristotle's *De Anima*, the 'organic' soul is understood to be that bodily essence that allows, at a basic level, for nutrition, reproduction and growth, and on a higher level, perception and movement. Such activities come from the body: the liver was regarded as the centre of the basic functions, and the heart and the brain as homes to perception and movement. The organic soul was shared by humans and animals (and even plants had some of the basic aspects – nutrition, reproduction and growth). However, humans had something more than just the organic soul: they possessed the inorganic soul, that immaterial essence that gave a person access to will, intellect and intellectual memory. To say that a human being is a rational animal is to say that a human has an inorganic soul. Animals cannot reason, so this argument goes, not because they are stupid, but because they lack the essential quality required for the exercise of reason. Animals are stuck with the body, the organic, while humans can transcend their bodily frame and have access to the immaterial, the spiritual realm. By extension, animals are stuck in the present, whereas humans have access to the past and the future.

A diagram from G. Reisch *Margarita Mundi* (1504), showing the ventricles of the brain (the sites of fantasy, cognition, estimation and memory) and process of dreams (the annotations A-E showing the influences of cognition, dream, senses, stars, and soul) within the first ventricle.

This might appear to offer a clear dividing line between humans and animals, between man and dog, but further examination of the processes of perception and movement reveals a point at which the division breaks down; where humans become beasts in more than merely metaphorical terms. This can be found when the relationship between perception and action, between brain and body, is examined.

The 'Moving Faculty', for Burton, as for other contemporary writers, is housed in the heart and brain. According to Burton the moving faculty had two functions: appetite and motion. This appetite is housed with the common sense, and just as the common sense is situated in two ventricles, so appetite is 'divided into two powers, or inclinations, Concupis- cible or Irascible'. The former 'covets always pleasant and delightsome things, and abhors that which is distasteful, harsh, or unpleasant', while the latter avoids 'danger and indignation'. Writing twenty years before Burton, Thomas Wright had argued that the two inclinations could be termed more simply 'coveting and
invading appetites.

Passions, or affections that include fear, hate, love, hope and so on, that are grouped under the concupiscible and irascible appetites, are not spiritual but bodily. Burton makes this clear: 'The good affections are caused by some object of the same nature'. That is, an external object (or a memory, or imagined version of it) must be in place in order for passions to be aroused. Burton continues:

... and if present, [the objects] procure joy, which dilates the Heart, and preserves the body; If absent, they cause Hope, Love, Desire, Concupiscence.

In these terms, sudden happiness – an expansion of the heart – can cause it to burst: one can truly die of joy. The passion is inseparable from its bodily source.

What follows from the arousal of passion is motion, for, as Burton notes:

... in vain were it otherwise to desire and to abhor, if we had not likewise power to prosecute or eschew, by moving the Body from place to place.

The 'efficient cause' of movement in man, he continues, is 'Reason, or his subordinate Phantasie, which apprehends this good or bad object.'

Thomas Wright presents this movement in slightly different terms:

Passions and sense are determined to one thing, and as soon as they perceive their object, sense presently receives it, and the passions love or hate it: but reason, after she perceiveth her object, she stands in deliberation, whether it be convenient she should accept it, or refuse it.

Once again, a difference between humans and animals appears here. An animal follows its passions (it has no choice as it has no reason) whereas a human can deliberate and decide whether to act or resist acting. Yet this process of deliberation is not as straightforward as Burton and Wright would seem to suggest. There was always a possibility that the passions could overwhelm reason; that, like an animal, a human could merely follow his or her desires.

A diagram of the layers of the head, from Magnus Hundt's Antropologium (1501), showing the three ventricles of the brain, with intellect at the centre.
argues, some reining in of the passions by the will but ultimately the will needs the passions ('it is unable to perform its functions without their aid') and can be overwhelmed by them: appetite, Joubert writes, 'often contradicts the will'. A reasonable human may work to control, to bridle desires; and such bridling is itself evidence of humans' reasonable nature.

Robert Burton was a Protestant thinker, and the denigration of humans in Protestant theology (Calvin regularly termed the human being a 'worm') fitted with the psychology he described:

Our concupiscence is originally bad, our Heart evil, the seat of our Affections captivates and enforceth our Will: So that in voluntary things we are averse from God and goodness, bad by Nature, by ignorance worse, by Art, Discipline, Custom, we get many bad Habits, suffering them to domineer and tyrannise over us, and the Devil is still ready at hand, with his evil suggestions, to tempt our depraved will to some ill-disposed action, to precipitate us to destruction.

One limit upon our innate evil is the word of God, the other is our reason, or what John Donne called God's 'viceroy in me'. But reason is often for Donne 'weak or untrue', and likewise Burton argues that it is, 'over born by Passion'. The image Burton uses is truly conventional: 'as so many wild horses run away with a chariot, and will not be curbed', so the will might be overwhelmed by the passions but must learn to restrain them.

But if restraint fails, or if restraint is not sought after at all, the effects are clear. Joubert terms a laugh that is purely bodily - that involves no moral or intellectual understanding - 'dog laughter'. Likewise, greed, a giving in to fleshly temptation, is a descent from human to animal. As Thomas Cogan wrote in *The Haven of Health* (1584):

Now, what a reproach is it, for man whom God hath created after his own likeness, and endued with reason, whereby he differeth from beasts, to be yet beastlike, to be moved by sense and serve his belly, to follow his appetite contrary to reason? for as much as by the very order of nature, reason ought to rule, & all appetites are to be bridled and subdued.

Eight years earlier, Thomas Newton had asked,

Who is he, that being thoroughly whittled in drink, doth not beastly rush into venerous lust, and filthy desires? For when the body is bumbasted with drink, and bellycheer, the privities and secret parts do swell, and have a marvellous desire to carnal coiture.

The word 'beastly' here appears a commonplace adjective, a description with some moral overtones, but there is a logic that makes beastliness not only the antithesis of godliness, but also a real possibility. Giving in to the desires of the body - to over-indulgence in food, alcohol, sex and so on - means that reason is being overwhelmed by passion, and if reason is overwhelmed and not used then that which separates human from animal is gone. Following this logic, as Burton was, it is in fact frequently hard to tell the difference between a man and a dog.

This failure to achieve human status, or the failure to maintain it once it had been achieved, was not only Burton's preoccupation, then. For John Baptista Nenna the destruction...
of the difference between humans and animals was a type of destruction of a bloodline; the end of a noble house. In his *Treatise of Nobility* he states:

True and perfect nobility of man, consisteth only in that part, which maketh man different from beasts; and that is reason, by the which he is called a reasonable creature, and the other [i.e. animal] unreasonable ... He then who leadeth this mortal life swerving from reason, is not to be accounted or called Noble, albeit that he descend of noble blood: For albeit he hath the outward shape of a man, being deprived of the most Noble part, which God hath given unto man (I mean reason) he remaineth without doubt to be reckoned amongst unreasonable creatures, and to be compared unto beasts: which being not partakers of reason, do lead their life according as their sense teacheth them.

Self-knowledge, what Burton felt was lacking in many men, required judgement, discernment, qualities housed in the inorganic soul. A lack of self-knowledge, in these terms, revealed an absence of the inorganic, and showed the human to be all body, like a beast. Even, for Nenna, nobility of blood could not counter this. Beastly status, it would seem, was equally available to all.

But it is not only in following the desires of the body rather than the deliberation of the mind that early modern humans found their status compromised. Ill health was regarded as evidence of a moral failing on the part of the individual. As the cultural historian Michael Schoenfeldt has noted, 'health assumed the role of a moral imperative'. The individual is 'the agent rather than the victim of his or her health,' and can be blamed 'for the illness that arbitrarily afflicts him or her'. That is, illness is a marker of immorality; individuals are not helpless in the face of disease, rather they are perceived to create the situation in which those diseases appear. According to Thomas Cogan,

... mean and temperate diet ... is more commendable than all the delicate fare in the world, and ought of the godly to be esteemed as a thing that best contenteth nature, and preserveth health.

By implication, intemperance (giving in to one's passions) not only endangers health, but ill health also reveals one's intemperance: it is a vicious circle.

Illness in this interpretation exhibits the individual's failing as a human being. If excessive indulgence in fleshly pleasure is evidence of the overwhelming of reason by
the passions, and the passions are the product of the body's (as opposed to the mind's) relationship with the external world, then giving in to the passions reveals a human who lacks that which makes him human in the first place. Greed, in this reading, is immoral, and it dehumanises: and that last term is to be taken literally. When Robert Burton writes that he wants to enable his (not so) human readers to be able to tell the difference between a man and a dog, we should take him literally.

The logic works in the other direction, however. There is one place where we can see the creation of a human who is truly distinct from an animal. We look neither to theology, nor to psychology to find this, rather we look at horse-training manuals. Where the image of the rampant passions overwhelming reason had been, since Plato, that of the uncontrollable chariot, so rule over horses in a very different discourse also speaks of the establishment of the status of humanity.

The Fall was understood to be the moment when human status was originally compromised. It was when, as William Perkins put it in his *Exposition of the Symbole* (1595), humans became ‘deformed children of wrath’. The Fall simultaneously caused the animals who had, in Paradise, been tame, to become wild. John Moore wrote that with the Fall humans ‘procured ... the disobedience of all the creatures towards himself. Hereof comes the fierceness of lions, bears, tigers, wolves and all the wild beasts.’ Just as Adam was afflicted with the sweat of labour, and Eve with the pain of childbirth, so all humans were blighted with the enmity of animals.

This theological discussion finds its way into texts that seem to us far from religious in their interest. In *The Perfection of Horsemanship* (1609), for example, Nicholas Morgan noted that after the Fall man ‘lost all obedience, which by original creation was subject unto him, & ... now the obedience of all creatures must be attained by Art, and this same preserved in vigour by use and practice’. Horseriding, for Morgan, is an emblem of successful human domination, and it replicates the relationship with animals that was held by Adam before the exit from Eden. To ride a horse, in these terms, is to return to a perfect natural order. In fact, training — making an unreasonable creature act as if reasonable (no more than this as if could be expected) — was by logical extension a display of the humanity of the rider. Exercising control over a ‘lower animal’ really did give evidence of control over the self.

Such a construction of the training and riding of horses allows for, almost calls upon, some of the terrifyingly cruel training methods used in the period. The training manuals reveal not only early modern humanity’s sense of animals’ lack of moral value (inflicting pain upon them is pedagogically useful, and not something to worry about), but also, in the image of the use of whip and chain, a vicious human desire to regain the stability of self-knowledge. Nowadays cruelty to animals is often perceived as a failing in the human protagonist. In the early modern period such cruelty had another meaning: ironically, a well-trained horse could speak volumes about the truly human nature of its owner.

**FOR FURTHER READING**


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