



Breath by Pippa Skotnes

WEEK 4: INTENTIONALITY

STEP 4.5: THE ETHICS OF OUR INSTINCTS – THE GOOD, THE BAD AND THE BRAIN

THE GOOD, THE BAD AND THE BRAIN

The design principle that underpins human physiology, like that all of living things, is enhancement of reproductive success. This applies to the human brain. Since the brain is the organ of the mind, the human mind too must in some fundamental sense be designed to maximise our chances of surviving to reproduce. The influence of such principles is expressed in stereotyped tendencies called *instincts*. Instincts exert a compulsive influence over mental life and behaviour precisely because they are so important for reproductive success. That is how they came to be inborn in the first place. If mice had to *learn* to avoid cats, that would be the end of mice.

There is plenty of evidence to demonstrate the existence of instincts in us humans too. Embedded deep within our brainstems is a 525-million-year-old structure (called the periaqueductal grey) that we share with all other vertebrates. It generates the brute pleasures and pains of consciousness, and accordingly impels us to approach and withdraw from the things that evoke those feelings. Above the brainstem, in the limbic system, at least seven further (more elaborate) instincts have been identified. These are about 200 million years old. One of them makes us curiously explore environments. Another helps us identify things that satisfy our nutritional and sexual appetites. Another makes us avoid dangerous things. Another makes us irritable and aggressive when frustrated. Another makes us keep close to loved ones. Another makes us care for our young. Another makes us compete in the social hierarchy. Of course, we humans, with our less-than-one-million-year-old huge prefrontal lobes, can *inhibit* these compulsive tendencies, but that does not mean they disappear and have no influence on our behaviour. They have a massive impact on behaviour. The reason we tend to deny this is because we humans suppress our instinctual emotions. This makes us unaware of their ongoing influence. Humans are comically out of touch with their instincts. They really think they are making it up as they go along. But voluntary action is not arbitrary action. I am able to suppress my inclination to hit my boss when he insults me, and choose instead to resign and start my own company; but that does not mean my entrepreneurial ‘free will’ is unrelated to good, old-fashioned, primate dominance behaviour.

All of this poses huge ethical questions, which deserve a moment’s reflection from all of us. If the design principle that underpins behaviour is the biological principle of reproductive success, does this imply that it is good, in the ethical sense, to survive and to reproduce? There is abundant evidence to

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suggest that our ethical values do indeed have their *deepest roots* in the instinctual tendencies enumerated above. The roots of ethics, on this view, consist in 'doing your biological duty'.

Consider, for example, the need for maternal care. There is much evidence that attachment is facilitated in mammalian females by the neuropeptide oxytocin during sexual intercourse, even more so via prolactin and progesterone during pregnancy, and even more so during childbirth. The effect is felt for years thereafter by both mother and child. After the initial bond is established, they become literally addicted to each other via the influence of mu opioids. As a result, they come to feel that it is 'good' to be together and 'bad' to be separated. Nobody has to teach a mother how to react if her toddler is lost in a public place; she feels *panic* ('separation distress'), she *cries out* ('distress vocalisations'), she frantically *searches* for it ('reunion-seeking'), etc. These are mammalian instincts. Inherent in such responses is a set of deep-seated values: it is 'bad' to separate mothers from their young, it is 'good' for mothers to care for their offspring; it is 'right' to keep them safe and secure, etc. These values are so deeply rooted that we do not stop to ask where they came from. We assume that it is just how things are. But the reason that this is 'how things are' is the biological principle of reproductive success. The evolutionary forces that impel mothers and babies to attach is that it is in their biological interest to do so; and this is ultimately due to the principle that *it is good to survive and reproduce*. That it is why evolution ensured that it *feels* good to be safe and secure, and bad to be lost and abandoned. That is also why it feels good to copulate. Copulation is absolutely essential to reproductive success – that is why it feels especially good. The good feeling associated with such things is what motivates us to do them (and vice-versa).

This brings us to the nub of the ethical question I have posed: is it good and right, in the ethical sense, to survive and reproduce, and more to the point, is it bad and wrong not to do so? Is it far-fetched to assume that these biological imperatives are the source of proclamations by the Catholic Church, for example, to the effect that contraception is morally wrong (i.e., sex for the sheer pleasure of it) and likewise homosexuality?

The can of worms this opens is too complex to address in one go. I will provide just two pointers. The first is the distinction between evolutionary forces themselves, which operate objectively at the species level, and the way they are communicated at the level of the individual organism. They are communicated to us in the form of *feelings*, that is to say, *subjectively*. To illustrate: when a mouse flees a cat, it does so because it feels subjective fear, not because it objectively thinks "unless I run now I will not survive to reproduce". Likewise, when a person is sexually attracted to another person that it is because they feel desire, not because they think "if I shag him/her now I will enhance my reproductive success". This gap between the objective biological mechanism and the subjective psychological inclination creates a space in which social coercion may occur. This introduces additional factors into the equation that ultimately determines behaviour.

A second, related consideration is the fact that human prefrontal lobes, which inhibit our instinctual affects and interpose thinking between instincts and actions ('free will') create artificial systems of rules. These include ethical systems designed to cope with circumstances that have only arisen in the past few thousand years, for which we have no instinctual preparation. Perhaps the most important of these arose from the domestication of animals and planting of crops, which resulted in us living in far larger than hunter-gatherer-sized groups. This introduced all sorts of complications for which we were utterly unprepared, biologically speaking. Thank heavens therefore for the prefrontal lobes, which

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thought up all the artifices of civilisation, which enable us to get along (more or less) in cities, countries and international unions.

But we should never over-estimate the power of these recent little inventions in comparison to that of our ancient instincts. Here lies the root of our hypocrisy, of the gap between what we profess and what we do – another uniquely human trait.



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