Notes for 4/02/13:

“Man has no power of altering the absolute conditions of life. He cannot change the climate of any country....it is an error to speak of man tampering with nature” - Darwin

Agree vs disagree? Can’t we alter nature? Should this be interpreted in a less literal meaning?

-Global warming debate. Are we altering the ozone? Is it human involvement or natural? How much control do we really have?

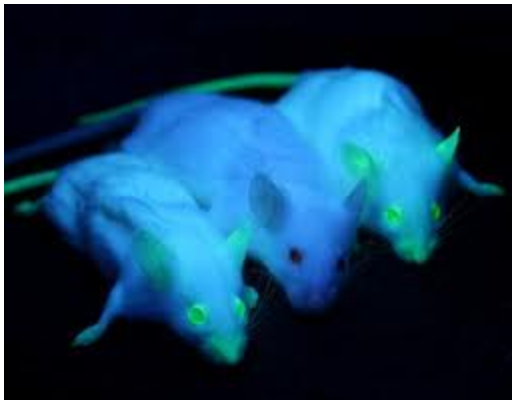
-Other animals influence nature as well. Regardless, there is something ‘different’ about humanity’s influence. Toxicity is prevalent.

-Do we alter nature enough to influence evolution? Do we have any effect on the big picture?

-The very existence of our natural problems (global warming, etc.) proves we DO have a prominent influence on nature.

Domestication vs evolution - can we only vary species within the parameters nature provides us?

Glowing mice:



Raymond Williams, 'Nature' (from KEYWORDS, 1983)

Nature is perhaps the most complex word in the language. It is relatively easy to distinguish three areas of meaning: (i) the essential quantity and character of something; (ii) the inherent force which directs either the world or human beings or both; (iii) the material world itself, taken as including or not including human beings. Yet it is evident that within (ii) and (iii), though the area of reference is broadly clear, precise meanings are variable and at times even opposed. The historical development of the word through these three senses is important, but it is also significant that all three senses, and the main variations and alternatives within the two most difficult of them, are still active and widespread in contemporary usage.

Nature comes from fw naturc, oF and natura, L, from a root in the past participle of nasci, L - to be born (from which also derive nation, native, innate, etc.). Its earliest sense, as in oF and L,

was (i), the essential character and quality of something. Nature is thus one of several important words, including culture, which began as descriptions of a quality or process, immediately defined by a specific reference, but later became independent nouns. The relevant L phrase for the developed meanings is natura rerum - the nature of things, which already in some L uses was shortened to natura - the constitution of the world. In English sense (i) is from C13, sense (ii) from C14, sense (iii) from C17, though there was an essential continuity and in senses (ii) and (iii) considerable overlap from C16. It is usually not difficult to distinguish (i) from (ii) and (iii); indeed it is often habitual and in effect not noticed in reading.

In a state of rude nature there is no such thing as a people . . . The idea of a people ... is wholly artificial; and made, like all other legal fictions, by common agreement. What the particular nature of that agreement was, is collected from the form into which the particular society has been cast.

Here, in Burke, there is a problem about the first use of nature, but no problem - indeed it hardly seems the same word - about the second (sense (i)) use. Nevertheless, the connection and distinction between senses (i), (ii) and (iii) have sometimes to be made very conscious. The common phrase human nature for example, which is often crucial in important kinds of argument, can contain, without clearly demonstrating it, any of the three main senses and indeed the main variations and alternatives. There is a relatively neutral use in sense (i): that it is an essential quality and characteristic of human beings to do something (though the something that is specified may of course be controversial). But in many uses the descriptive (and hence verifiable or falsifiable) character of sense (i) is less prominent than the very different kind of statement which depends on sense (ii), the directing inherent force, or one of the variants of sense (iii), a fixed property of the material world, in this case 'natural man'. What has also to be noticed in the relation between sense (i) and senses (ii) and (iii) is, more generally, that sense (i), by definition, is a specific singular - the nature of something, whereas senses (ii) and (iii), in almost all their uses, are abstract singulars - the nature of all things having become singular nature or Nature. The abstract singular is of course now conventional, but it has a precise history. Sense (ii) developed from sense (i), and became abstract, because what was being sought was a single universal 'essential quality or character'. This is structurally and historically cognate with the emergence of God from a god or the gods.

Abstract Nature, the essential inherent force, was thus formed by the assumption of a single prime cause, even when it was counierposed, in controversy, to the more explicitly abstract singular cause or force God.

This has its effect as far as sense (iii), when reference to the whole material world, and therefore to a multiplicity of things and creatures, can carry an assumption of something common to all of them: either (a) the bare fact of their existence, which is neutral, or, at least as commonly, (b) the generalization of a common quality which is drawn upon for statements of the type, usually explicitly sense (iii), 'Nature shows us that . . .' This reduction of a multiplicity to a singularity, by the structure and history of the critical word, is then, curiously, compatible either with the assertion of a common quality, which the singular sense suits, or with the general or specific demonstration of differences, including the implicit or explicit denial of a common effective quality, which the singular form yet often

manages to contain.

Any full history of the uses of nature would be a history of a large part of human thought. (For an important outline, see Lovejoy.) But it is possible to indicate some of the critical uses and changes. There is, first, the very early and surprisingly persistent personification of singular Nature: Nature the goddess, 'nature herself. This singular personification is critically different from what are now called 'nature gods' or 'nature spirits': mythical personifications of particular natural forces. 'Nature herself is at one extreme a literal goddess, a universal directing power, and at another extreme (very difficult to distinguish from some non-religious singular uses) an amorphous but still all-powerful creative and shaping force. The associated 'Mother Nature' is at this end of the religious and mythical spectrum. There is then great complexity when this kind of singular religious or mythical abstraction has to coexist, as it were, with another singular all-powerful force, namel8y a monotheistic God. It was orthodox in medieval European beUef to use both singular absolutes but to define God as primary and Nature as his minister or deputy. But there was a recurrent tendency to see Nature in another way, as an absolute monarch.

It is obviously difficult to separate this from the goddess or the minister, but the concept was especially used to express a sense of fatalism rather than of providence. The emphasis was on the power of natural forces, and on the apparently arbitrary or capricious occasional exercise of these powers, with inevitable, often destructive effects on men.

As might be expected, in matters of such fundamental difficulty, the concept of nature was usually in practice much wider and more various than any of the specific definitions. There was then a practice of shifting use, as in Shakespeare's Lear:

Allow not nature more than nature needs,
Man's life's as cheap as beast's ...

. . . one daughter
Who redeems nature from the general curse
Which twain have brought her to.
That nature, which contemns its origin.
Cannot be border'd certain in itself. . .

. . . All shaking thunder
Crack nature's moulds, all germens spill at once,
That make ungrateful man . . .

. . . Hear, nature hear; dear goddess, hear . . .

In these examples there is a range of meanings: from nature as the primitive condition before human society; through the sense of an original innocence from which there has been a fall and a curse, requiring edemption; through the special sense of a quality of birth, as in the rootword;

through again a sense of the forms and moulds of nature which can yet, paradoxically, be destroyed by the natural force of thunder; to that simple and persistent form of the goddess, Nature herself. This complexity of meaning is possible in a dramatic rather than an expository mode. What can be seen as an uncertainly was also a tension: nature was at once innocent, unprovided, sure, unsure, fruitful, destructive, a pure force and tainted and cursed. The real complexity of natural processes has been rendered by a complexity within the singular term.

There was then, especially from eC17, a critical argument about the observation and understanding of nature. It could seem wrong to inquire into the workings of an absolute monarch, or of a minister of God. But a formula was arrived at: to understand the creation was to praise the reator, seeing absolute power through contingent works. In practice the formula became lip-service and was then forgotten. Paralleling political changes, nature was altered from an absolute to a constitutional monarch, with a new kind of emphasis on natural laws. Nature, in C18 and C19, was often in effect personified as a constitutional lawyer. The laws came from somewhere, and this was variously but often indifferently defined; most practical attention was given to interpreting and classifying the laws, making predictions from precedents, discovering or reviving forgotten statutes, and above all shaping new laws from new cases: nature not as an inherent and shaping force but as an accumulation and classification of cases.

This was the decisive emergence of sense (iii): nature as the material world. But the emphasis on discoverable laws --

Nature and Nature's laws lay hid in night;
God said, Let Newton be! and all was light! (Pope)

-- led to a common identification of Nature with Reason: the object of observation with the mode of observation. This provided a basis for a significant variation, in which Nature was contrasted with what had been made of man, or what man had made of himself. A 'state of nature' could be contrasted - sometimes pessimistically but more often optimistically and even programmatically - with an existing state of society. The 'state of nature', and the newly personified idea of Nature, then played critical roles in arguments about, first, an obsolete or corrupt society, needing redemption and renewal, and, second, an ' artificial' or 'mechanical' society, which learning from Nature must cure. Broadly, these two phases were the Enlightenment and the Romantic movement. The senses can readily be distinguished, but there was often a good deal of overlapping.

The emphasis on law gave a philosophical basis for conceiving an ideal society. The emphasis on an inherent original power - a new version of the much older idea - gave a basis for actual regeneration, or, where regeneration seemed impossible or was too long delayed, an alternative source for belief in the goodness of life and of humanity, as counterweight or as solace against a harsh 'world'.

Each of these conceptions of Nature was significantly static: a set of laws - the constitution of the

world, or an inherent, universal, primary but also recurrent force - evident in the 'beauties of nature' and in the 'hearts of men', teaching a singular goodness. Each of these concepts, but especially the latter, has retained currency. Indeed one of the most powerful uses of nature, since 1C18, has been in this selective sense of
goodness and innocence. Nature has meant the 'countryside', the 'unspoiled places', plants and creatures other than man. The use is especially current in contrasts between town and country: nature is what
man has not made, though if he made it long enough ago - a hedgerow or a desert - it will usually be included as natural. Nature-lover and nature poetry date from this phase.

But there was one further powerful personification yet to come: nature as the goddess, the minister, the monarch, the lawyer or the source of original innocence was joined by nature the selective breeder: natural selection, and the 'ruthless' competition apparently inherent in it, were made the basis for seeing nature as both hisiorical and active. Nature still indeed had laws, but they were the laws of survival and extinction:
species rose and flourished, decayed and died. The extraordinary accumulation of knowledge about actual evolutionary processes, and about the highly variable relations between organisms and their environments
including other organisms, was again, astonishingly, generalized to a singular name. Nature was doing this and this to species. There was then an expansion of variable forms of the newly scientific generalization: 'Nature teaches . . .', 'Nature shows us that . . .' In the actual record what was taught or shown ranged from inherent and inevitable bitter competition to inherent mutuality or co-operation. Numerous natural examples could be selected to support any of these versions: aggression, property, parasitism, symbiosis, co-operation have all been demonstrated, justified and projected into social ideas by selective statements of this form, normally cast as dependent on a singular Nature even while the facts of variation and variability were bemg
collected and used.

The complexity of the word is hardly surprising, given the fundamental importance of the processes to which it refers. But since nature is a word which carries, over a very long period, many of the major variations of
human thought - often, in any particular use, only implicitly yet with powerful effect on the character of the argument - it is necessary to be especially aware of its difficulty.
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Humans are both nature and not nature.
We *can* compare natural selection and artificial selection.

- Natural selection took us from single-celled organisms to 'here.'
- Artificial selection hasn't done much, but hasn't had much time.
- Natural selection is a phenomena. Artificial selection is a goal. Natural selection still asserts its influence even within the confines of domestication.

I copied the text in above....

Will we ever run out of new species variations?
- Species perfection based on its environment.

WE'RE RUNNING OUT OF FISH!
http://www.fao.org/fishery/topic/426/en
http://www.globalchange.umich.edu/globalchange2/current/lectures/fisheries/fisheries.html

So rising temperatures from global warming are going to kill us all. "Global climate chaos."
-Methane bubbles from the ocean.
Sea Temperature rise:
http://ocean.nationalgeographic.com/ocean/critical-issues-sea-temperature-rise/

Perfect organism: a creature with high intelligence and complication able to evolve with the same variability and speed as bacteria.

What about machines? Consciousness?

We'll start searching for other forms of fossil fuels after oil runs dry.
Nature vs 'human' nature. 'I firmly believe there's gonna be a big die-off."
Environmental sustainability is also economic sustainability.

North Korea best Korea?

Ray Kurzweil and his creepiness:
http://en.wikipedia.org/wiki/Ray_Kurzweil
http://en.wikipedia.org/wiki/Futures_studies
Green Car Exhaust System:

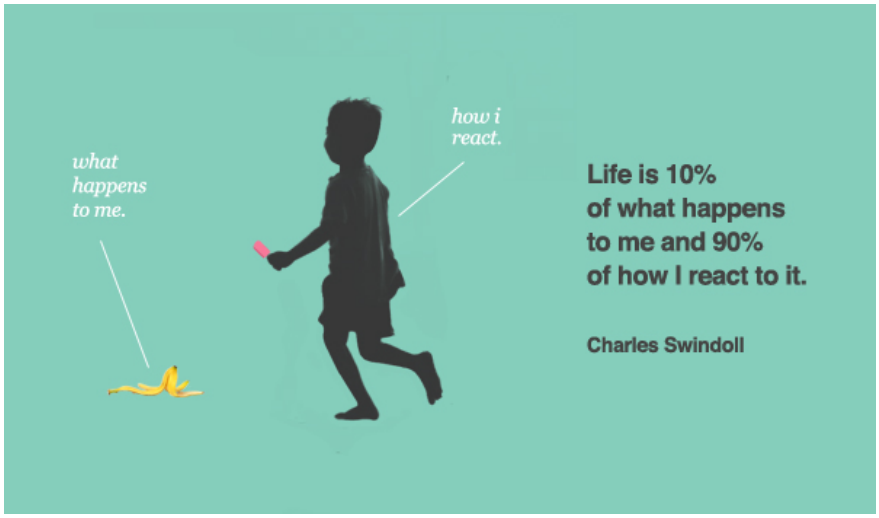
http://contest.techbriefs.com/component/content/article/2928

wanna know more about climate change??

What is the 'turning point' from supernatural creator to reproductive science?

- The idea of 'something' from the mother and 'something' from the father blended together. As good as we're going to get in that timeframe.
- The creator could have 'predestined' evolution, and extrapolated it through the first organism. Is this belief bad? Should we just all sleep in? Life is pointless anyway....
- Is Darwin's shout-out to Creationism an attempt to reconcile his faith with his discoveries?

How much is the "divine agent" and how much is free-will choice?



Thomas Kuhn's scientific revolutions:
http://en.wikipedia.org/wiki/The_Structure_of_Scientific_Revolutions

http://philosophy.wisc.edu/forster/220/kuhn.htm

Reindeer people as an example of a paradigm shift.

Old: "Flies on an injured reindeer leg are evil. That's why the leg is injured."
Young: "The leg is injured, therefore flies are attracted to it."

The Roots of Domestication

Domas: home

Domestication doesn't actually guarantee a lack of nomadism.
Agriculture is a better indication of this.
"Paradise is always milk and honey" - Kessler, *Goat Song*

Two aspects:

1. Biological imperatives
2. Cultural relationships

Domesticates used to live side-by-side with early domesticators.
Animal protection regulation not a product of legitimate animal cruelty. Used only to protect pets elevated to a status closer to human.

Should animal interest groups push for advocacy and across-the-board change, or active work toward small-time animal welfare?

Activists may use extremes to create space for a middle ground.
Erica contends that agriculture and technological advances *can* be healthy for the planet.
"**Every day in countries around the world, animals are fighting for their lives. They are enslaved, beaten, and kept in chains to make them perform for humans' "entertainment"; they are mutilated and confined to tiny cages so that we can kill them and eat them; they are burned, blinded, poisoned, and cut up alive in the name of "science"; they are electrocuted, strangled, and skinned alive so that people can parade around in their coats; and worse"**

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