

Menningarlæran í vísindaástøðiligum høpi

Tórshavn 5. august 2009

Evnið í fyrilestrinum

- Menningarlæran hefur fingið ómetaliga stóran týdning á samfelag og mentan vestanfyri tey seinastu 150 árin, men atfinningarnar móti læruni hava eisini verið nógv og harðar. Í hesum fyrilestrinum verða menningarlæran og tær atfinningar, sum hava verið settar fram ímóti henni, settar inn í eitt vísindaástøðiligt høpi, har nomið verður við tann heimspekiliga spurningin um, hvat vísindi yvirhøvur er fyri nakað.

Vísindini undir ákæru

- “Forhandlinger (millum vísindafólk ritstj.) om, hvad der skal tælle som bevis eller hvad der udgør en god vurdering, er hverken mere eller mindre uordnet end en diskussion mellem sagførere og politikere” (Latour og Woolgar, 1979)
- “videnskabelige sandheder er, dybest set, omfattende sociale aftaler om, hvad der er ‘virkeligt’, opnået gennem en typisk ‘videnskabelig proces’ af forhandlinger” (D. E. Chubin og E. J. Hacket, 1990)
- Vísindini mennast gjøgnum sosialar avtalur og innihaldið er m.a. heft at virðum og metingum hjá vísindaliga samfelagnum – Thomas Kuhn - 1962
- Lady Hope segði í 1915, at Darwin broytti stöðu, stutt áðrenn hann doyði.
- “Is the theory of evolution scientific? Not according to the eminent philosopher of science, Professor Karl Popper . . . "Darwinism is not a testable scientific theory," Popper says, “but a metaphysical research programme” (Russel Kranz).

Hvat eru vísindi fyri nakað - Darwin

- ”Jeg har arbejdet efter sande Baconske principper og uden nogen forudgående teori blot indsamlet materiale i massevis ved at bruge fortrykte spørgeskemaer, ved samtaler med dygtige opdrættere og ved omfattende læsning” (Darwin – í endurminningunum – útgivnar í 1958).
- “Graba regner saaledes f. Eks. at en Femtedel af Færøernes Tejster, der alle parres indbyrdes, dannes af en godt udpræget Varietet” (Darwin – í Uppruni Slaganna 1859).
- Vísindini skilja seg frá øðrum virksemi við empiriskari “verifikatióin”
- Eitt positivistiskt/induktívt demarkatiónskriterii fyri vísindi, sum neyvan heldur – heldur ikki til at lýsa arbeiðið hjá Darwin sjálvum.

Hvat eru vísindi fyri nakað - Popper

- Tað finst eingin “teorileys” rein fakta tilgongd til vísindi. Vísindini skilja seg frá óvísindaligum virksemi við at vera “falsifiserbar”.
- Neyðugt er at skilja ímillum:
 - “The Context of Discovery” og
 - “The Context of Justification”.
- Arbeiðsgongdin (vísindaliga testin) eigur at vera deduktiv:
 - Trupulleiki – Context of Discovery.
 - Almenn “teoretiskt” uppáhald um empiriska veruleikan (djørv git), sum útihýsa metafysiskum, tautologiskum og ógreiðum uppáhaldum.
 - Roynd at “falsifisera” teoretiska uppáhaldið – Context of Justification.
 - Teoriin fellur (t.e. verður mótprógvað) ella livur víðari (t.e. er ikki enn mótprógvað).

Hvat segði Popper um menningarlaruna

- “Darwinism is not a testable scientific theory but a metaphysical research programme” (Popper - Unended Quest - 1976).
- ”And yet, the theory is invaluable. I do not see how, without it, our knowledge could have grown as it has done since Darwin. In trying to explain experiments with bacteria which become adapted to, say, penicillin, it is quite clear that we are greatly helped by the theory of natural selection. Although it is metaphysical, it sheds much light upon very concrete and very practical researches. It allows us to study adaptation to a new environment (such as a penicillin-infested environment) in a rational way: it suggests the existence of a mechanism of adaptation, and it allows us even to study in detail the mechanism at work. And it is the only theory so far which does all that” (Popper - Unended Quest - 1976).

Popper broytir stöðu 1

- “ ... I shall speak always of today's theory - that is Darwin's own theory of natural selection supported by the Mendelian theory of heredity, by the theory of the mutation and recombination of genes in a gene pool, and by the decoded genetic code. This is an immensely impressive and powerful theory (Popper – Dialectica - 1978).
- The claim that it completely explains evolution is of course a bold claim, and very far from being established. All scientific theories are conjectures, even those that have successfully passed many severe and varied tests. The Mendelian underpinning of modern Darwinism has been well tested, and so has the theory of evolution which says that all terrestrial life has evolved from a few primitive unicellular organisms, possibly even from one single organism” (Popper – Dialectica – 1978).

Popper broytir stöðu 2

- “ ... I have in the past described the theory as 'almost tautological', and I have tried to explain how the theory of natural selection could be untestable (as is a tautology) and yet of great scientific interest. My solution was that the doctrine of natural selection is a most successful metaphysical research programme. It raises detailed problems in many fields, and it tells us what we would expect of an acceptable solution of these problems (Popper – Dialectica - 1978).
- I still believe that natural selection works in this way as a research programme. Nevertheless, I have changed my mind about the testability and the logical status of the theory of natural selection; and I am glad to have an opportunity to make a recantation. My recantation may, I hope, contribute a little to the understanding of the status of natural selection” (Popper – Dialectica - 1978).

Menningarlæran – sett upp sum logisk skipan við hypotesum og deduktiónum

■ Hypotesa:

- Einhvør plantu- og djórapopulatióin økist geometriskt (talið á individum økist skjótari enn føðigrundarlagið - Malthus).
- Arvaligir munir eru millum limirnar í populatióinini, sum hava týdning fyri yvirlivilsis- og reproduktióin-møguleikarnar (arvalæran hjá Mendel).
- Nýggir arvaligir eginleikar koma áhaldandi fram innan populatióinina, óheft av sjálvari úrvalsgongdini.

● Deduktióin:

- Tað fer fram ein áhaldandi bardagi millum limirnar í tí vaksandi populatióinini (struggle for existence).
- Tað fer fram náttúrligt úrval av teimum, sum hava teir best egnaðu eginleikarnar (natural selection).
- Tað fer fram organisk menning.

Intelligent design

- “Is intelligent design falsifiable? Is Darwinism falsifiable? Yes to the first question, no to the second. Intelligent design is eminently falsifiable. Specified complexity in general and irreducible complexity in biology are within the theory of intelligent design the key markers of intelligent agency. If it could be shown that biological systems like the bacterial flagellum that are wonderfully complex, elegant, and integrated could have been formed by a gradual Darwinian process (which by definition is non-telic), then intelligent design would be falsified on the general grounds that one doesn't invoke intelligent causes when purely natural causes will do. In that case Occam's razor finishes off intelligent design quite nicely” (Dembski, 2001.)

Menningarlæran og intelligent design

- Tað ber illa til at testa/falsifisera hugskotið um intelligent design (talan er um eitt óspesifiserað metafysiskt uppáhald).
- Uppáhald hjá intelligent design fólkunum eru falsifiseraði (m.a. irreduserbarur kompleksitetur) – negativ próvførsla.
- Menningarlæran er falsifiserbar (men er ikki enn falsifiserað):
 - Kunstigt úrval (mikroevolútióin).
 - Genetiskt samanfall millum apur og menniskju (makroevolútióin).
 - Hartil kemur, at fossilt tilfar í hópatali stuðlar undir – verifiserar - menningarlæruna (makroevolútióin).

Endi – tveir logiskir feilir

- Tað ber ikki til at slutta frá einum deskriptivum uppáhaldi, t.d. tey best egnaðu yvirliva, til eitt normativt uppáhald, t.d. tey best egnaðu eiga at yvirliva – t.e. frá “er” til “eigur” (tann naturalistiski feilslutningurin).
- “Det er ret og slet en logisk fejlslutning at gå fra den observation, at videnskaben er en social proces, til den konklusion, at slutproduktet, vore videnskabelige teorier, er hvad de er på grund af de sociale og historiske processer, som er på spil i denne proces” Steven Weinberg – Den Store Teori – 1992 (tann genetiski feilslutningurin).