

FORMATION DES HYPOTHESES: UN 'GENERATEUR DE DIVERSITE'?

«it is only in deduction that there is no difference between a valid argument and a strong one»
(C.S. Peirce, ms 315, cit. Hintikka, 1999, p. 98)

1. La philosophie de la connaissance de Donald T. Campbell.

«I began my career as an 'evolutionary epistemologist' by applying selection theory to trial-and-error learning, incorporating gestalt models of problem solving... to visual perception ..., and to creative thought..., leaping to the dogmatic assumption that all instances of achieving fit of belief to referent required a blind-variation-and-selective-retention (BVSR) component, however direct or presumptive» (Campbell, 1990: 7). (cit. Wuketits, 2001, p. 172)

«A blind-variation-and-selective-retention process is fundamental to all inductive achievements, to all genuine increases in knowledge, to all increases in fit of system to environment» (Campbell, 'Evolutionary epistemology', in: Radnitsky & Bartley III, 1987, p. 56).

2. D'une épistémologie évolutionniste à une éthique évolutionniste

«...le grand problème humain, subordonner l'égoïsme à l'altruisme» (A. Comte, *Catéchisme positiviste*, 1852, Quatrième entretien: 'Ordre humain, d'abord social, puis moral').

«Les gènes tiennent la culture en laisse ... La morale n'a aucune fonction démontrable que celle d'assurer la permanence du matériel génétique humain» (E.O. Wilson, *On Human Nature*, Cambridge, Mass.: Harvard Univ. Press; tr.fr. *L'humaine nature. Essai de sociobiologie*, Paris: Stock, 1979; Chap. 7, 'Altruisme').

«For ethics, we have to make an unproven choice of values. I suggest human survival under humane conditions: we don't want humans under random-selected conditions (as many offspring as possible, most of them dying, earlier and earlier pregnancies, etc). We don't want human survival with fundamental species change. We probably don't want survival without cities and urbane life...» (Campbell, in: Callebaut, 1993, 439-440; cit. Wuketits, 2001, p. 183).

3. Excursion chez les logiciens: stratégie 'à la Sherlock Holmes' et «logique interrogative»

«In very many questions, the situation before us is this: We shall do better to abandon the whole attempt to learn the truth, however urgent may be our need of ascertaining it, unless we can trust to the human mind's having such a power of guessing right that before very many hypotheses shall have been tried, intelligent guessing may be expected to lead us to the one which will support all tests, leaving the vast majority of possible hypotheses unexamined. Of course, it will be understood that in the testing process itself there need be no such assumption to myterious guessing powers. It is only in selecting the hypothesis to be tested that we are to be guided by that assumption» (C.S. Peirce, *Collected Papers*, § 6.525; cit. Hintikka, 1999, p. 92).

«The ultimate aim of my enterprise is to uncover the logical structures, in a strict sense of the word 'logic', typically involved in scientific enterprise, not just in the justification of already obtained results but in the acquisition of new information» (J. Hintikka, 1999, Chap. 5, p. 115).

4. Enquête du côté des biologistes: controverse des 'mutations dirigées', et hypothèses actuelles sur la régulation de la mutagenèse.

«On peut dire, par métaphore, que la sélection naturelle recherche, à chaque instant et dans le monde entier, les variations les plus légères; elle repousse celles qui sont nuisibles, elle conserve et accumule celles qui sont utiles; elle travaille en silence, insensiblement, partout et toujours, dès que l'occasion s'en présente, pour améliorer tous les êtres organisés relativement à leurs conditions d'existence organiques et inorganiques» (Charles Darwin, 1859, Chap. XV).

«The task of the generator is to produce variety, new forms that have not existed previously, whereas the task of the test is to cut out the newly generated forms so that only those that are well fitted to the environment will survive.» (H.A. Simon, *The Sciences of the Artificial*, 1969, p. 52).

«Pure directed mutation, with its spooky foreknowledge, may be dead. But real mechanisms that produce the ghost of directed mutation could yet shake up biology.» (Tim Beardsley, *Scientific American*, 1997, Sep 1997).

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