## What Ever Happened to Old-Fashioned Love?



Eugenics programs seem to be devised by those who consider themselves to embody traits upon which mate selection should have focused but who, due to one perceived misfortune or another, have either been rejected, jilted, or forced to settle for much less than their egocentric expectation of an intellectual peer with whom to procreate. My reasons for rejecting arguments for eugenics are based on quantitative rather than sentimental analyses. Although there are sometimes quantities presented in arguments *for* eugenics, these tend to have little or no relevance. There is, for example, *no* population size (however large) that spontaneously transforms *that* problem into one demanding eugenics as the solution, which is sometimes argued by proponents. It seems to me that only if our species were in danger of losing particular genes as may happen by random fluctuations in a *small* gene pool, could one justify the invasive imposition of selective reproduction constraints.

In animal breeding programs, many ethical issues are considerably diminished and there is typically unilateral acceptance of the criteria for quality. There are also undisputed performance metrics of demonstrably heritable characteristics which tend to be quantitative genetic factors, i. e., the *number* of a given type of gene present within a group acting as a single quantitative genetic factor correlates well with the measured performance. I find it easy to believe that general intelligence, g may be such a capability that correlates as a quantitative genetic factor. However, even when there is strong evidence to support a genetic basis for performance, there are inevitable problems with selective breeding programs.



In his fine article on pages 8 and 9 of *Gift of Fire* issue #105 Guy Fogleman described the wellknown *law of regression to the mean*. He indicated some of its widespread applicability beyond the application to repeated intelligence testing which was the primary topic of his article. He began, for example, by noting a classic application of the law to the field of quantitative genetics:

"In the 1880's, Francis Galton noticed that sons of tall men tended to be taller than average but generally not as tall as their fathers."

High performance tends ineluctably to *dissipate* in subsequent generations so that extreme selection pressures must be maintained to secure improvement, whereas poor performance tends to *improve* as a matter of course in the offspring of subsequent generations. The *mean* is a great attractor. These phenomena are very different than those associated with the law of entropy where everything continues to deteriorate *ad infinitum*. Proponents of eugenics sometimes imply erroneously that entropic considerations would result in the degeneration of human intelligence if there were no particular selection for it. That is false. Those that would be eliminated from the gene pool in a eugenics program based on performance evaluations are those that have the *law of the regression to the mean* working *for* them whereas those to whom one would give preference do not! After one generation, the net improvement would be negative! The same ruthless selection

and elimination process would have to be continually applied to the offspring of even premium breeders or there would be no substantial gains. And yet, with no such program in place, it is well known that a quite dramatic escalation in intelligence of the population as a whole has taken place over the last few decades.

There are always hazards with any selection criterion: If, for example, all the best thoroughbred mares had been bred to Secretariat for the six years that it took to assess metrics indicating that the triple crown winner was *not* a prepotent sire, the breed would have seriously deteriorated during his reign. In fact his offspring were way below par. He had a few excellent sons and a few more daughters, but in comparison to the average produce records of the mares bred to him, he was a *dog*. This was in spite of the fact that he himself scored as high as any runner on the demonstrable heritability metric. Like Secretariat, high scorers on essentially *any* metric may be genetic dead ends. A reason can always be excavated from the wreckage of any such unpredicted failure but an excuse at that point is of little merit.

Extreme capabilities happen where and when they will – *major* greatness is an exception to *all* rules. It is well known that optimum algorithmic procedures for finding a local maximum may altogether preclude progress toward a higher *global* maximum. Eugenics programs address such incremental local improvements that may preclude subsequent overall improvements that require more considerable generations because of linkage and other complex genetic considerations.

Thus, such programs might actually reduce man's ultimate intellectual potential. One should never accept a reduction in diversity for a minimal gain because that reduction reduces the probability of a subsequent major leap forward. Such processes would essentially eliminate unique genetic combinations before they ever occur for performance assessment.

The reduction in genetic diversity is one of the vulnerabilities that have resulted from man's control over the breeding programs of other species as well as his willful extinction programs. Let us at least protect our own species from becoming a dead end. Per chance g-genes – so like gold – are better protected for the bright future of our species by their natural wide dissemination in unexploited genetic ores. They are much more safely protected in this raw state than if they were to be strip mined, hammered and polished into long chains. Chains of gold will be smuggled, stolen, bartered, and sold, or placed in locked boxes where they may either be



by Fred Vaughan © mid 1950's after an image in a Mary Worth cartoon

ignored or irreplaceably destroyed en masse by those with no respect for such 'beauty'. Historical facts sadly support this line of reasoning where the intellectual elite of a society are the first slaughtered upon conquest... and... resorting to mere rhetoric here: "What ever happened to chemistry and taking a chance on old fashioned love?"