

## Human Individuality in the Age of DNA Diagnosis

Robert Pollack

Science is the criticism of myth There would be no Darwin had there been no *Genesis*.

– W.B. YEATS

Among the many myths that we seem to be unable to escape, despite all the evidence of our science, is the notion that there once was, or once may be an ideal person. Life comes to us in species, from Plato and Aristotle until today, the notion of an ideal version of each species existing somewhere in the natural world, has underlain the view of life held by many otherwise sensible, modern people, some of them scientists and doctors.

Whether they liberally imagine the exemplar of a species to be an average of the individuals in it, or conservatively conjure up an abstract ideal to which all the individuals should aspire, hardly matters. In either case, they have made the same mistake. By considering the individual variations that distinguish one person from another to be deviations from an ideal, they ignore the existence of natural selection, a mindless mechanism that has been producing new species from old for the past four billion years, since life on this planet began.

Since the 1860s – the decade that saw the freeing of America's slaves, the liberation of Russia's serfs, and the publication of Darwin's *Origin of the Species* – natural selection has haunted the dreams of every romantic. It is an adequate and testable explanation for our origins that in one stroke eliminates the possibility of an ideal human, and that celebrates human individuality and the differences among us as essential to our birth, and to our continued viability as a species. Since that book was published, the evidence anyone has been able to accumulate remains consistent with its basic conclusions, especially as they apply to our own species. Natural selection can create new species only by choosing from among the individual, inherited variants born within every living species. This leaves a reasonable person with only one choice: to abandon the notion that an ideal person could ever be found or even described, or to abandon the astonishing, interlocking accumulation of evidence for our own emergence as a species by the operation of natural selection.

That choice was clear to Darwin himself, and it left him incapacitated by various psychosomatic illnesses for decades, until Wallace's competing manuscript obliged him to disgorge his own notes; Darwin never considered *Origin* a finished work, even when it sold out its first five printings.

In the past decade or so, the resistance of even the most sophisticated of Western societies to the realities of natural to a new problem at the intersect of medical and legal ethics: defining the propriety and the utility – if any – of DNA-based testing for inborn differences. The ethical presumption of medicine, extending to medical science, is the overriding desirability of creating and extending optimal lives for individuals, one individual at a time. DNA-testing may do this in some cases, but in many cases it accomplishes the opposite, by revealing a fact about a person's future fate, without offering anything for that person to do about it. In those cases it reduces the time of optimal life for that person, by revealing information that shrinks opportunity, destroys happiness, and threatens well-being and future medical care.

When this may happen, and no matter whether society as a whole would benefit from the information, the test would be an unethical event unless it were wholly voluntary and wholly confidential. But how to protect the privacy of such information? That is impossible, so long as insurance is predicated on informed risk, and so long as companies can legally ask for the information in order to set the membership of their various medically insured pools. Thus the first prerequisite of ethical application of DNA-testing, would be to make insurance a wholly-pooled enterprise. In other words, the demand for ethical DNA testing should spell the end of private insurance for health of life.

Beyond the immediate need to change the laws so that they either end insurance as we know it, or protect an individual's DNA from being analyzed as a requirement for insurance, is the need to clarify the meaning of these tests in biological terms. There is no "gene for" anything. To think so, is to confuse a complex and very long chain – the way the many genes of a person interact to make the body and the brain – with any link in that chain. Break any link, and the chain is broken: that is the meaning of a single-gene disease like Huntington's chorea. But when the chain is whole, that does not mean that any single link at risk is the sole source of all the brain-functions damaged when one such link is damaged. The existence of a "gene for Huntington's" failed brain function does imply the existence of a "gene for normal" brain function in anyone else.

Yet that is the presumptive meaning many people put to the test: they inherit one version of one gene and they are sick, another version of the same single gene and they have a normal brain.



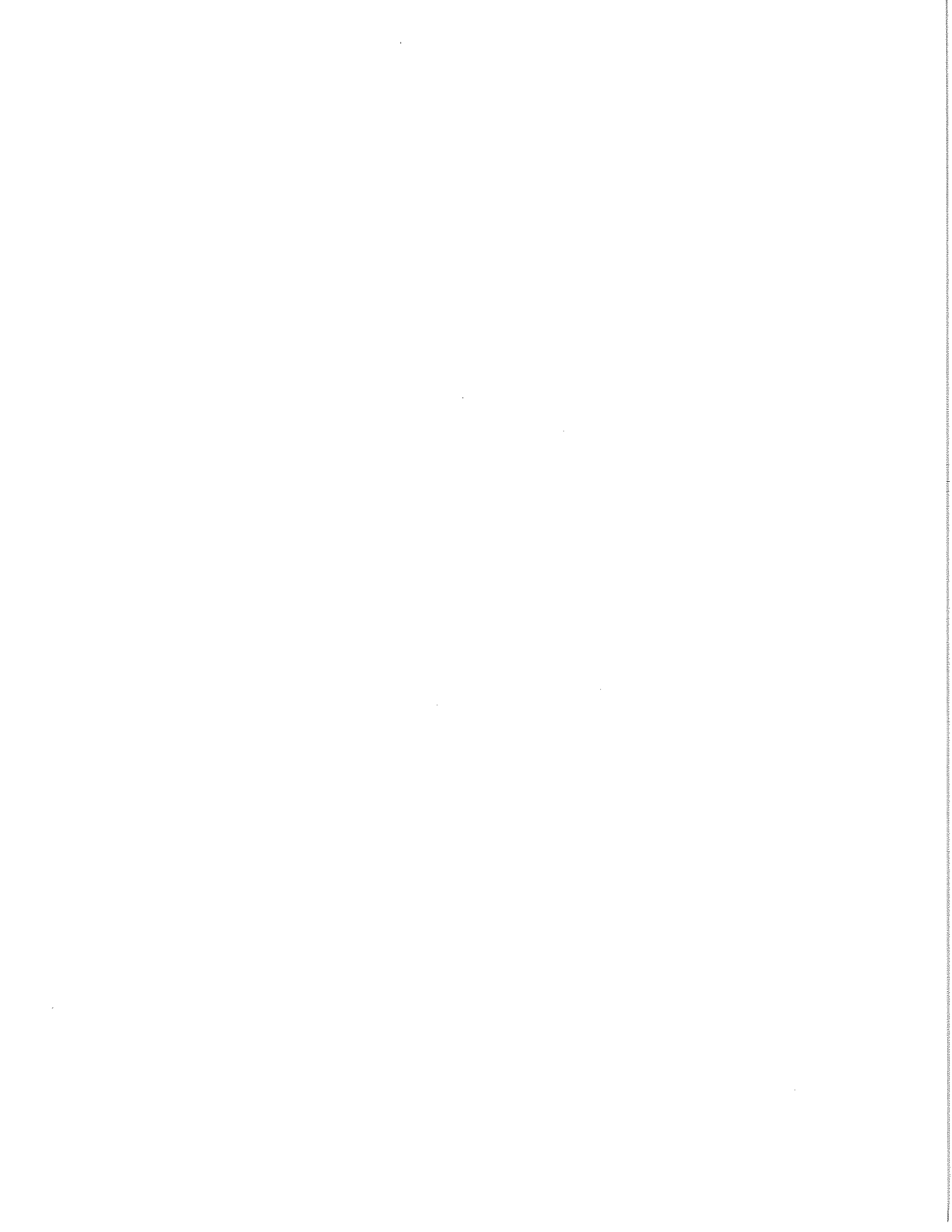
There of course the Platonic ideal peeks from behind the curtain of unspoken presumptions: "Normal brain" in that context can only mean singularly, ideally normal; variations can only be diseases. This is manifestly not so, and our species' grand triumph of robust variation – our astonishing outbred difference from person to person – is lost in the confusion.

The problem of what a DNA test means, gets even more sticky when the platonic ideal of Normal is applied not to DNA-based inheritance, but to a mimic of genetic inheritance, the passing down of habits of the mind from parent to child. Some single-gene diseases are inherited in a recessive pattern. This means that the difference shows itself only in people inheriting a damaged version of the gene from both their parents; persons receiving one functional copy from one parent are not effected by the presence of the non-functional version from the other person.

Genetic recessiveness has its mimic in the passage by parents to their children of experiences in their own family's past, experiences, they may not themselves show in their own lives. As psychoanalytic researchers have shown in abundant and depressing detail, sudden disaster for which there can be no planning, and no possible genetic content – near-death in a concentration camp for instance – can be passed on to a third or even fourth generation as a precise, reproducible series of social and clinical difficulties. These are not resolvable by DNA-data, but they are by solving the traumatism of the past, though psychoanalysis.

The two kinds of inheritance – familial and genetic-come together in the moment when a person learns that the family history of fear of a disease has been resolved in their own case by a DNA test. At that moment an "inherited" family history is derailed by new information that requires the entire family story to be re-understood: the psychic strains are likely to be as great whether the DNA data are "good" or "bad." The implication here is simple: not only should DNA-based diagnosis be voluntary, restricted, and private; it should also take place in a psychotherapeutic context, rather than a medical one.

When one examines the current American legal situation in these contexts, its absurd, backwards dysfunctionality becomes evident. While a psychoanalyst or psychologist may keep potent and therapeutically useful knowledge of a person's family-inherited past wholly confidential, no one can keep similar DNA-data – another form of potent knowledge of the past – from anyone else's scrutiny. Yet once it is known, DNA's news of the past cannot be disentangled from context in any one person's life. I conclude that there can be no ethical, clinically-sound reason to obtain either



form of information, unless both forms of revelation of the past are equally protected from abusive scrutiny. That is where the law should take us.