



Measures of

Athletes, actors, entrepreneurs and high-ranking politicians shape our definitions of male gender. Mark McGwire, Denzel Washington, Bill Gates and Bill Clinton. Heroes of summer and screen, the self-made billionaire and the self-destructive philanderer. This typology of our transmillennial culture marks only one measure of what it means to carry a Y as well as an X chromosome. Whether muscleman or nebbish, the male of the species fulfills a destiny shaped not just by batting average and bank balance but by genes, hormones and psyche.

Biology and psychology both confirm and deny the prevailing stereotypes. Statistically, men do live up to expectations as tough guys: killing and being killed, drinking, sleeping around and generally ignoring what ails them. Testosterone, the hormone that defines the essence of maleness, may foster life-threatening recklessness—and may also raise the risk of heart disease and stroke. If only the strong survive, then men are the weaker sex. Dying like a man in the U.S. means to expire, on average, six to seven years earlier than the opposite sex.

Fortunately, men have taken a few lessons from how the

other half lives. The influence of the women's movement—or in some cases a reaction to it—can be witnessed in the hundreds of college courses in men's studies and a burgeoning preoccupation with men's health issues. The campaign to combat prostate cancer is similar in scope to the fight against breast cancer. Intervention programs for domestic batterers and adolescent boys attempt to curtail the tough-guy swagger that can fracture families and lead to jail time.

It is assumed, of course, that radical change is possible and all to the good. Men's studies often focus on the protean nature of male identity and how

the infinitely mutable male persona can evolve from the John Wayne archetype to the more sensitive Alan Alda image.

Meanwhile the scientific literature has begun to paint a different portrait—one that demonstrates that postmodernist interpretations of gender may have well-defined limits. Biology, in fact, dictates much of who we are. Neuroscientists have begun to explore how sex hormones may lead to different wiring in the brains of boys and girls, engendering not just differing styles of play but fundamentally distinct modes of

Man

Hormones and bluster produce the hero, the cad and the shorter-lived of the sexes. Insights into both male psychology and biology may temper untoward behavior and enhance longevity

cognition. The aggression and risk-taking behavior that may be promoted by male hormones stem from selection pressures on men to procure the most mates, evolutionary psychologists assert.

Molecular biologists have traced the locus of maleness—the DNA software that programs the development of the testes, which make testosterone and other male hormones—to a gene on the Y chromosome. The Y proves to be a shrunken version of the female-defining X chromosome. Contrary to the Bible, man derives from woman.

Into this fray step the social scientists, whose investigations into men's habits and health suggest that genes cannot explain everything and that prevailing notions of modern maleness are fraught with nuance. Their research has shown that certain culturally influenced behaviors—such as avoiding one drink too many or finding a supportive spouse—may influence a

man's longevity more than his genetic heritage does. Even a predisposition to violence may depend on native culture: whether, for instance, you were brought up north or south of the Mason-Dixon Line. Sociological studies reveal diverging profiles for the modern father: men in two-parent families spend more time with children, but many of the divorced may not have seen a son's or daughter's face in at least a year.

In a perverse sense, the biological determinism that challenges social theorists may also lend them the last word. Some of the most caustic critics of science lambaste it for reducing humanity to a simple electrical and plumbing schematic of the body. Yet deciphering the underlying electrical potentials and fluid flows may finally allow men to be all that they can be, at least in the sexual department. The little blue pill called Viagra takes its power from Nobel-winning research into the

molecular signals that lead to an erection. Viagra represents the lure of age-warping identity change: it is the promise that men can indulge themselves as boys. And more novelties may be on the way. Studies of the byzantine complexity of skeletal muscle have revealed a growth factor that may restore the lost tone of sagging flesh. The discovery may provide a remedy for age-related muscle loss or the next illegal performance enhancer for buffed bodybuilders.

The reasons that men live shorter, more brutish existences than women may be rooted deep within biology and evolutionary history. Ultimately, wholesale transformation of character may be beyond the reach of any pill or injection. But an understanding of why men do what they do, combined with the power of these new technologies, may help narrow the longevity gap between men and women and lead to better lives for all.

—The Editors