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Of Science, Experience, and Obama

Wolf Schäfer

The American presidency is for global politics what the Nobel Prize is for science — you cannot aim higher. An early breakthrough and a long life may be required to score in the race for Nobel recognition. The time lag between appreciation, nomination, and award can reach fifty years and potential Nobelists must be alive for nomination.

Inexperience can be an asset and is not an obstacle to greatness. In 1905, a twenty-six-year-old conceived not only the special theory of relativity and the equivalence of matter and energy, but also explained Brownian motion and the particulate nature of light (for which he won the Nobel Prize in 1921).

Albert Einstein's *annus mirabilis* owed as much to his youth and relative inexperience as to his genius. Disciplinary knowledge, the forte of normal science, accumulates over time. Extraordinary science takes a fresh look at the whole. It creates a paradigm shift that occurs when someone perceives an all-too-familiar world anew.

Hillary Clinton and John McCain resemble normal science and disciplinary knowledge. Older than the median age of the recipients of the Physics Nobel Prize in the twentieth century — which was 51 years and has risen since the 1960s — and closer to the median age of the Literature Prize winners at 63, they personify incremental progress and institutional stability. Still, most scientists make their breakthrough discoveries when they are in their thirties (give or take a decade).

Since 1901, the Nobel Prize has sanctioned great science in physics, chemistry, physiology or medicine, and outstanding accomplishments in literature and peace. The Literature Prize tends to honor the work of a lifetime and the Peace Prize acknowledges a timely contribution, that is, an intervention with a relatively short half-life. Doris Lessing and Al Gore, the recipients of the Literature and Peace Prizes in 2007, mark both sides of this temporal spectrum. While global peace is elusive, world literature is enduring, and the universal laws of nature are comparatively eternal.

Waiting a decade or more for your Nobel in the sciences mirrors the greater longevity of a successful contribution; but you must be alive or you suffer the fate of Rosalind Franklin. In 1952, Franklin produced Photo 51, a momentous X-ray image of the helical structure of DNA. Yet she died in 1958, four years before Francis Crick, James Watson, and Maurice Wilkins won the big prize for their 1953 discovery of the double helix chain of DNA.

Not all Nobels are created equal. Some are more smashing than others and

form a minority like the few American presidents who have risen posthumously above their peers. Alas, no algorithm can determine greatness in advance. Waiting till the promising candidate has thoroughly matured in the eyes of posterity works for history but is not viable in politics. So what do the great scientific and cultural achievements teach us about the 2008 presidential election quandary in the United States?

Delivering historical change and reorienting a democratic country's history is not the prerogative of old hands; and liberating the United States with a new political vision and broad realignment of its collective will is not a matter of seniority. Occasionally, relative inexperience must be allowed to trump relative experience in politics as in science.

Global recognition in politics and history may take a long time. Historians settle for greatness in retrospect. Karl Marx was virtually unknown alive, but a powerful presence in his political and intellectual afterlife. Having passed away is not too bad for success in the arena of historical impact and political appreciation, however controversial. But what are the odds for becoming the number one world leader if you are comparatively young and inexperienced?

Clinton and McCain typify normal politics — Barack Obama represents extraordinary politics. Choosing Obama's movement over Clinton's and McCain's more predictable leadership means heading for a political paradigm shift that Obama is clearly articulating but history will not be able to assess before the present moment has long passed. Safe bets advance normal science, yet extraordinary science reorients the course of a field's history. Voting for the extraordinary in politics and adopting a revolutionary scientific theory are both inherently unsafe but bound to rise to the top of the agenda once in a while.