

Jack Halpern (1925-2018) **A Remembrance**

by

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My name is Grant Delbert Venerable II. While I was born and raised in California, I now live in retirement in the Atlanta suburbs teaching intro chemistry part-time at Georgia Military College in Fayetteville. Jack Halpern was my dissertation advisor from 1967 to March 1970. Our research project carried out with radiation chemist Edwin J. Hart at the Argonne National Laboratory suggests that my remarks at least touch on the history of modern science. I first met up with Professor Halpern in Fall 1965 upon my arrival from UCLA to begin graduate studies in a cohort of 55 classmates. Our project was on the *Pulse Radiolysis of Transition Metal Complexes in Aqueous Solutions*.

Scientific advances arise through a nexus of connections. When the speed of forming such connections reaches a critical point, complex systems go into chaotic drive often leading to radically unexpected developments. This occurs in the social and cultural realm as well as the natural sciences. The University of Chicago has long been an incubator of walking nexus points of creative chaos spawning major developments across the illusory divides between discrete disciplines. My Argonne advisor Ed Hart was co-discoverer of the hydrated electron in 1962, the year that Jack Halpern arrived at Chicago and found himself in the mixed company of contrarian achievers ranging from natural scientists to philosophical thinkers Ricoeur, Tillich, Eliadé, Bethke-Elshtain, and others. As a leader as well a precocious outlier in chemical kinetics, Jack Halpern transmitted to me the vision and the courage to press the envelope of my radiation chemical studies and beyond into my career.

The odyssey began long before our arrivals here. For me it began before my father's 1932 graduation in engineering from Caltech, the institutional creation of the University of Chicago and M.I.T. The admission to Caltech of Grant Venerable, Sr., the Institute's first student of African descent, occurred in the turbulent 1920s when eugenics was endemic in California corporate culture. But his entrance on the watch of physicist Robert Millikan and astronomer George Ellery Hale led to a set of new, intergroup understandings and a larger crucible of walking nexus points of diverse human origins. The extremes of eugenics were extinguished in Pasadena through the catalytic presence of a handful of professors and students of Jewish, Asian, and African heritage, notably physicists Paul Epstein and Albert Einstein, my father, and a young chemist named Saul Winstein. Saul was the father of my late UCLA classmate and Chicago physics professor, Bruce Winstein—and the father-in-law of a future Caltech Nobel Laureate, physicist Kip Thorne. We discern here an allegory of how congenial intergroup relations is the true starting point of scientific achievement.

My mentoring by two other walking nexus points—Willard Libby at UCLA and his Manhattan project colleague Joseph J. Katz—led to the unusual arrangement between the Chemistry Department and the Argonne, whereby Jack Halpern agreed to be my dissertation advisor. Jack proved to be an ideal teacher and research director. As one steeped in Talmudic tradition, he was good at asking basic questions over and over again until resolution occurred. And that is how we

identified the microsecond-lifetime “pentacyanocobalt I” complex after my many late-night experiments at the 15-Mev LINAC.

My work with Jack Halpern had significance from both a scientific and sociocultural perspective. His understated perceptiveness and subtle counsel allowed me to be open with my anxieties about race discrimination, poverty, the Vietnam war, political assassinations, and other societal events that affected me and my cohort classmates during the chaotic 1960s. Jack’s heritage from Poland to North America availed me a sound context for reaching a keener awareness of my own dual “wave-particle identity” as a member of both a minority group and society’s majority group. As the twelfth in sequence, I was following the same academic path as a succession of African American Lives that *mattered* to this University; as chemists, we were but a small subset of a larger cadre of students, primarily from the South, who had earned advanced degrees on the Quadrangles since 1891. But I was imbued with a Talmudic basis for critical thinking under the mentorship of one whose contributions to the chemical field are renowned. And Jack Halpern’s life and heritage mattered to me more than I could have known then, as he guided me through defining moments that led to my eclectic life journey—as a professor in the university systems of California, a systems scientist in Silicon Valley, and fifteen years a provost capped by nine years at Lincoln University of Pennsylvania.

But finally, Jack, just between the two of us as you look down from your new laboratory suite somewhere beyond space-time: *Thank you* for graciously welcoming my father to lunch at the Athenaeum during your Sabbatical stay at Caltech one-half century ago. Thanks for choosing your wonderfully supportive secretary Lorene Richardson (who just passed away at 89). And thanks for our path crossings and the memories of you as dynamic teacher and walking nexus point in our time.



Lf to Rt: GDVII, Edwin J. Hart, Jack Halpern (back to camera)
Discussing pulse radiolysis data. Photo taken in Argonne
National Laboratory office of E.J. Hart, Fall 1969



GDVII presenting his oil-on-canvas to his chemical mentor
Jack Halpern. The painting depicts the unstable $\text{Co}(\text{CN})_5^{4-}$
(pentacyanocobalt I) complex that was central to GDVII's
Ph.D. dissertation work. Photo in J. Halpern's office
in Searle Chemical Laboratory. March 1970



Halpern Schriftfest
Charles Riordan, Helen and Jack Halpern, GDVII
University of Chicago, Smart Gallery - Fall 1996



Printed program from the Radiation Chemistry Conference
Occasion of E.J. Hart's 65th birthday. Pictured on left is
the Venerable oil painting depicting the Jortner-
Rice-Wilson model of the hydrated electron.
Argonne National Laboratory 1975