## A Tribute to Donald T. Campbell

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Donald Campbell had scores of academic children. We are a privileged subset of the thousands of psychologists, sociologists, anthropologists, biologists, educationalists and philosophers who have been, and will be long into the future, influenced profoundly by his quasi-experimental methodology and evolutionary epistemology. We inherited some of his precious insights not only by reading his densely-packed, richly-constructed, creatively-phrased publications, and attending his 'concertina-pleated', handout-supported, wittily-penetrating presentations. We also had the immense good fortune to spend stretches of time in his company. We basked in the role of pupil to this great teacher, and felt that, while we may never match the breadth and incisiveness of his scholarship, we could be a valued part of the conversation.

Don would say that this tribute is an act of 'filial piety' on the part of one, late child. And so it is. But it is a piety of joyfully elicited devotion, not solemnly extracted duty, and its filial quality may be useful to the reader. You see, one of the magnificent things about Don Campbell was that he didn't isolate life from work, the personal from the professional. More fully than any other scholar I have known, he interwove the preoccupations of the scientist and philosopher with those of the householder, shopper, tourist, husband, father, friend and mortal man. Tackling them with the same inspired blend of deliberation and playfulness, faith and fallibilism, Don succeeded in uniting these roles and concerns, which exist in so many of us as disordered and contradictory fragments, into a single, perhaps nested hierarchical, view of the world. Given this immense achievement, a few personal recollections from a devoted academic daughter may serve at least as well as a formal tribute to illustrate the quality of the man and his work.

My post-doc period with Don began in January 1985 when the east coast was in the grip of its coldest spell for many years. As a newly-hatched PhD, who had never before ventured more than 200 miles from mild England, I was dazzled and petrified, not only by the snowbound whiteness of the Lehigh campus, but by the ordeal before me. It seemed that I must now make my own way around the icy, predator-infested lake of 'real science'. But that perception soon melted under Don's care and tutelege. Identifying the immediate risks to my survival as frostbite and immobility-induced isolation, he called me in the mornings with instructions based on the weather report. Some days I was forbidden to leave my apartment, and others I could make my way to the office, but only if I wore four layers, a muffler, and a pair of stout mittens. The immobility problem was solved by driving lessons. Don as a substitute traffic cone stood reading journals as I practiced parallel parking around him. He allowed me to drive us to Penn for weekly cultural evolution seminars, advising at tricky intersections, encouraging when I stalled, and reminding me gently that on the Scheuekil Expressway, as elsewhere in the US, one drives on the right hand side of the road.

During the driving lessons (and alongside instruction on spackling, ripe cantelope identification, and the derivation of the term "grass widow") I began to learn about Don's practice and conceptions of science. These were sources of yet greater warmth and freedom, for me and countless others. By preaching and example (in the style of his much admired farmer-cum-Puritan cleric ancestors), Don communicated a humane and sophisticated vision of science, in which flawed, venial people together yield the noblest of products. Without ever claiming to answer the sceptics, his hypothetical realism is addressed to those with faith that science edges towards truth, and shows us how - via variation and selective retention, and competition among the cooperators - ego-involved, over-committed, and under-informed mortals could bring this about. From his "tribal model of science's social system of validity-enhancing collective belief change" and "fishscale model system of omniscience", to his recommendation that one gratefully interview the aggressive critic, and recognition that Podunk U. houses genuine scholars, Donald Campbell's theory of science offers both a detailed map of the terrain and sympathetic, practical advice for the anxious traveller. It tells us that we are all, as individuals, ill-equipped, but that we can nonetheless contribute to group progress.

Don preferred maps to propositional structures as metaphors for knowledge. (As a tourist in a new town, he always made for the tallest building and, leaving others below with the guidebook, climbed for the aerial view.) In his preference for maps, and perhaps in other things, Don followed Edward Tolman, a learning theorist of the 1940s, and a tutor during his graduate days at Berkeley. Don remembered Tolman with great affection and respect, but he also scolded him gently for failures of "tribal leadership". In contrast with Tolman's contemporary, Clark Hull, who built a research empire by instructing graduate students harshly and exclusively in his own, mechanistic, learning theory, Tolman himself was a kind father to his students and encouraged them, in intellectual play and exploration, to look beyond his principles of "cognitive mapping". It was, Don believed, a consequence of this difference in leadership style that Hullian theory gained supremacy, and Tolman's insights were lost in obscurity for decades, to be recognised only recently as of fundamental importance.

But was Don a better tribal leader than Tolman? Not judging by the range of his interests and achievements, the diversity of his reading lists, and the deep affection of his students. And what business has a tribal leader so obviously enjoying, revelling in, ideas – his and yours? These laudable and lovable characteristics seem to suggest that Don was not a great tribal leader, and therefore that his intellectual legacy will be undervalued and misattributed. But an incident outside a photocopying room makes me hesitate. Don was leaving the room one summer afternoon with an armful of copies of his latest manuscript for unsolicited distribution. I asked in my innocence why he went to the bother and expense of all that copying and mailing. With a twinkle, he replied that, when she was carrying him, his mother was frightened by a mimeograph machine.

Through his kindness, humour, profound integrity and magnificent intellect, Don succeeded in winning both of life's great prizes: the hearts of those who knew him, and enduring eminence.