Brain wars: Passion and conflict in the localization of vision in the brain

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Remembrance of David G. Cogan

I first met Dave Cogan in the early 1970's when he came to Washington from Boston. I came into the large auditorium at the Washington Hospital Center one Saturday morning for one of the monthly neuroophthalmological conferences. I recognized Dave in the audience and situated myself behind him and to one side so I could keep an eye on this celebrity during the conference. The ranks of seats are tiered steeply up in that auditorium, so I had a good view.

The first patient presented sounded like a garden-variety case of retrobulbar neuritis to me. I looked over to see what the great Dr. Cogan was doing. He was taking notes! David Cogan was taking notes! Meticulous notes on a three-by-five card, so he could file it, and study it later. Astounding! It was as if one could never learn enough about anything.

In the twenty years since then, he taught me other things, but mostly about the character of the true scholar, for whom the world is much too interesting a place to allow mere ego to interfere with its study. I recall that I stopped him in the hallway during an Academy meeting three or four years ago to congratulate him on the named lecture he had just given, but he had to rush away to hear a talk on some corneal esoterica, much more interesting than mere praise.

In fact, he was impatient with praise, if not actually embarrassed by it. This is not to say he was unaware of his own worth, but that he was more conscious of how little of Nature we really understand. In this, I place him in the company of great scholars of the past who were both mild and profound: Sherrington and Hughlings Jackson, for instance, and even Darwin. I imagine that right now they are all at a marvelous Grand Rounds in Heaven, and Dave is taking notes.
Abstract. David Ferrier and Hermann Munk, both pioneers in early brain research, engaged in a running controversy regarding the primary vision center in the brain. Both misinterpreted their experimental observations, but in different ways. Ferrier placed vision in the parietal lobe, Munk in the occipital lobe. However, Munk also felt he had observed a 'psychic blindness' in his animals, which was in reality only a central scotoma or other primary vision defect, and not the impairment of higher visual capacities that he proposed. Munk's concept has been repeatedly cited as the experimental correlate of visual agnosia, but is inherently fallacious.

'The quarrel is very acrimonious; indeed the subject of localization of functions in the brain seems to have a peculiar effect on the temper of those who cultivate it experimentally'.

William James [10]

I have written elsewhere [7] about the early years of David Ferrier, the pioneer neurophysiologist (Fig. 1). I proposed that his initial placement of the vision center in the parietal cortex was not such an egregious error after all, and that the whole story tells us something about the nature of pioneering research in general, and brain research in particular. This paper will continue the story with some of the controversies that developed around him at the time.