

I grew up with “Scotland’s greatest psychologist”

John Raven

My early life with my father, John C. Raven, may be illustrated via a painting of the house we lived in during “the war”. It was painted by Henry Collins, who was retained to draw the *Progressive Matrices* items for publication.



My father had asked a doctor friend who had a rural practice near Colchester to find a disused cottage for him. Here he set up a small holding.

We had a dozen hens, 7 goats, and (as I recall from my childhood memories) 100 rabbits. The rabbits were bred for their pelts which were cured and used to make clothing and blankets for us boys. We also had gleaning rights on the local fields and we used my father’s car (justified to the authorities because he it for his field-work in connection with the *Progressive Matrices*) to gather straw and hay to make haystacks, which served as an important wind break besides providing food for the animals.

I need to make particular mention of the garage we constructed. My father feared the Germans might arrive (it was, as evidenced by the bombs that were from time to time off-loaded into the fields around us, a much closer thing than most people realise). Accordingly, we constructed a garage out of whole trees which could be used as fuel if needed and had a thatched roof and coal buried in the floor.

As a colleague of mine much later commented, what was remarkable about my father was that he consistently did things which other people talked about doing but rarely did. Among these was persuading a conscientious objectors’ tribunal to *direct* him to “follow his own profession”. I guess few people have done that.

I could go on in this vein and readers can find more examples in the link above. When we moved to Dumfries we gradually constructed a 3-room hut in which we (the boys) slept and in which visiting professors were from time to time surprised to find themselves accommodated. (Photos in the link.)

Also important to mention is that, in setting up his *Department of Psychological Research* at the famous *Crichton Royal Institution* (mental hospital) he arranged for it to be housed in the town **outside** the hospital in order to prevent psychologists being seen as handmaidens to psychiatrists ... and, indeed, becoming involved in “treatment” at all. (He declared that setting out to “treat” people was a form of aggression.)

From Dumfries he made periodic visits to London to join BPS committee meetings. I was aware that at these times he became very tense. Only very much later did I discover that he had made himself very unpopular by opposing attempts to lay down

content that should be taught in psychology courses and thereafter examined. Such prescriptions would in this way come to define psychology (and in the process create jobs for academics who had little experience of practicing psychology).

I understand that his own lectures to nurses in the hospital were very different. Thus a family friend (a gardener's daughter who became matron) told me that she was at first very frustrated because my father did not seem to teach anything but seemed only to offer only his own observations. Then one day the penny dropped. She found herself saying to herself "I am as good a psychologist as you are!" and proceeded to *behave* accordingly. In short, my father was nurturing the competencies of the psychologist rather than teaching "psychology".

The Department of Psychological Research and staff at 20 Castle St., Dumfries



But, to return to the question "What it was like to be the son of a famous psychologist?" Or something like that. Here I need to go on a long digression about my route to psychology. At school we were asked to write an essay on one of a number of "philosophical" topics. I chose "freedom" and fished what seemed like a

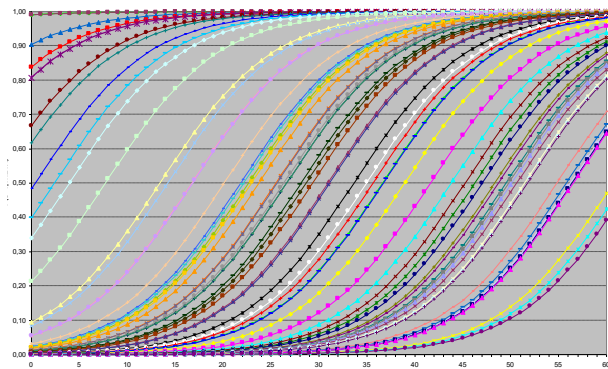
promising book off the library shelves. My mother got to hear of this and suggested that I read *Conditions of Freedom* by John MacMurray, around which my father had organised an extended departmental seminar.

I became very interested in MacMurray's work and came to visit him at his home here in Edinburgh in the vacation. In due course I asked "What do I do if I study philosophy?" MacMurray replied: "If you're interested in what I write, don't study philosophy". That wasn't much help! But I went from there to a meeting of The British Association for the Advancement of Science (which my father had often attended). I got on a bus to visit a cyclotron and some guy came and sat in the seat beside me. In due course I told him what had just happened. He replied "If you are interested in what MacMurray writes, come and study psychology in Aberdeen!" (He turned out to be Rex Knight, professor of psychology in Aberdeen.)

On graduating I pursued neither psychometrics nor clinical psychology but spent the next 15 years or so researching education and competence (on which I had published an article in the student newspaper). It was only when my father died that my brothers asked me to take over the publication of the *Matrices*.

Here are a couple of findings from that research. Following later versions of the scaling procedures deployed in 1936 (now known as Item Response Theory) we produced the results for the *Standard Progressive Matrices Plus* shown below. It seems that we have something approaching an interval scale, something few other tests can claim. (This Figure is a little misleading in that it is based on fitting what is technically known a 1PL model to the data. In this the graphs have been heavily

smoothed. As explained in the full “90 years” article, fitting a 3PL model creates a rather less favourable picture.)



I would go so far as to say that, taken together with data like that in the tables below, we have demonstrated that eductive (meaning making) ability (I do not use the term “intelligence”) is as scientifically robust and measurable as energy. (Which is not to say that we have done it).

Correlations Between SPM Item Difficulties as Determined Separately for Eight Socio-Economic Status Groups. (Decimal Point Omitted)

1								
2	99							
3	99	99						
4	98	99	99					
5	97	98	99	99				
6	98	99	99	99	99			
7	95	96	98	98	99	98		
8	95	96	98	98	99	99	99	
	1	2	3	4	5	6	7	8

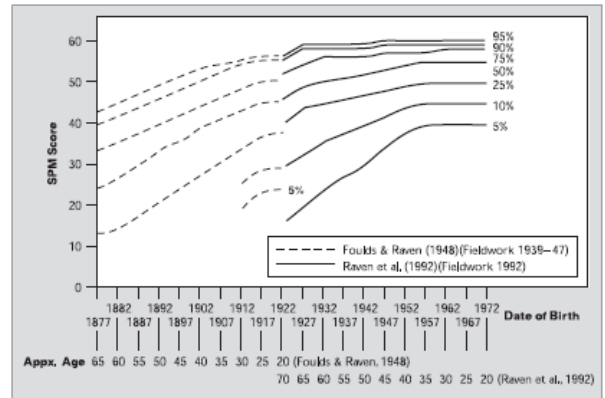
Not only is it measurable, it produces highly consistent results across countries and socio-economic and ethnic groups. In the age of a replicability crisis this must be considered remarkable.

Standard Progressive Matrices
Correlations Between Item Difficulties Calculated Separately Within Specified Groups

	Westown Black	Westown White	Westown Hispanic	Westown Asian	Westown All	Des Moines	China
Westown Black							
White	98						
Hispanic	100	98					
Asian	98	99	98				
All	99	99	100	99			
Des Moines	99	99	99	97	99		
China	95	94	94	96	95	96	
UK 1979	99	97	99	98	99	99	97

Unlike the Westown sample, the Des Moines sample covers all ages not just adolescents. (Decimal point omitted and rounded to two decimal places).

To these we may add the consistency in the secular increase in scores over time (the “Flynn effect”).



(The figure graphs the percentile norms obtained by adults of different ages (and thus dates of birth) on the *Standard Progressive Matrices* when a sample was tested circa 1942 and in 1992. It will be seen that those born in 1922 and tested circa 1942 (and thus approximately 20 years of age) obtained similar scores to those born in 1922 and tested in 1992 when they were 70 years of age.)

I may finally add that related research shows that 11yr. olds’ differential scores in relation to background predict two thirds of social mobility *both upward and downward* over 30 years... but that’s another story.

John Raven

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This article is based on *John Carlyle Raven and his legacy*

<https://www.researchgate.net/publication/341150479>
JOHN CARLYLE RAVEN 1902 - 1970 and his legacy
and *Highlights from 90 years with the Progressive Matrices*

<https://www.researchgate.net/publication/395381035>
Highlights from 90 Years With the Raven Progressive Matrices .