

## **RICHARD SKEMP**

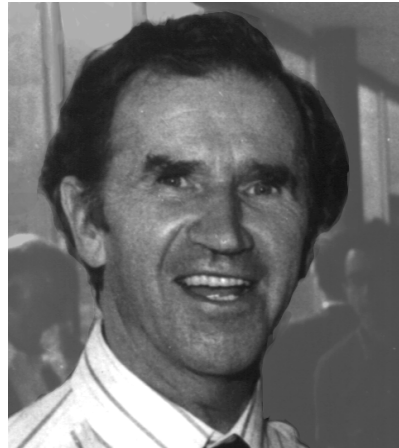
### **March 10, 1919 – June 22, 1995**

**A Tribute by David Tall and Michael Thomas**

Richard Skemp was a unique figure in mathematics education – a significant inspiration to a vast number of teachers and educators who have gained insight through reading his works and a moving spirit in the foundation of the International Group for the Psychology of Mathematics Education.

His background peculiarly fitted him to the role of a father figure in the psychology of mathematics education, for he was qualified as a psychologist, a mathematician and an educator, and one should also add as a practising teacher, an empirical researcher, and a theorist.

He was born in Bristol on March 10th, 1919, the son of Professor A. R. Skemp of the University of Bristol. He was educated as a Foundation scholar at Wellington College, Berkshire (1932–7), taking up an Open Scholarship in Mathematics at Hertford College, Oxford in 1937. The war intervened and he joined the Royal Signals, serving in India and attaining the rank of Captain before returning at the end of the war, sitting nervously on the bomb doors of a Lancaster bomber. He then completed his degree at Hertford College (1945–1947) and became a mathematics teacher for two years at Oundle School, followed by two years at Rye St Antony, Oxford. His increasing interest in how children learn caused him to return to Hertford College once again in 1952 at the age of 33 to study for a second bachelor's degree in psychology. He completed his PhD in psychology at Manchester University in 1959 where he was first a Lecturer in Psychology (1955–1962) and subsequently Senior Lecturer (1962–1973), directing the Child Study Unit. In 1973, at the age of 54, he became Professor of Educational Theory at the University of Warwick, where he remained until his retirement in 1986.



Richard pictured at Karlsruhe, 1976, at the International Congress of Mathematics Education.

Richard prided himself on the quality of his output, polishing his work for some time before releasing it for publication. His mould-breaking paper “Instrumental understanding and Relational understanding” was presented in talks for several years before it reached its final form; it is no wonder it continues to be a seminal paper so many years after it was written.

Richard had a special way of dealing with students’ work. For instance, he would read a piece of writing with tape-recorder in hand, making comments that he passed on to the student to study at leisure. It was so valuable to have his on-going commentary and the possibility of re-hearing subtle comments several times over.

He took delight in communicating with people of all ages, especially young children, whom he treated with respect as if they were his colleagues. His desire to communicate is evident in all his writings, both practical and theoretical. He aimed for elegant, simple expression of profound ideas, declaring that, “there is nothing as practical as a good theory.” He exemplified this duality of purpose by producing both theories of learning, including *Intelligence, Learning and Action* (Wiley, 1979) and corresponding practical curriculum materials such as *Understanding Mathematics* at secondary level and *Mathematics in the Primary School*.

He had a special gift for expressing the essence of ideas in simple language. For instance, he said “it is easy to make simple things difficult but difficult to make hard things easy.” He gently criticised curriculum reformers who introduced the “new mathematics” as a logical development by saying that this “teaches the product of mathematical thought, not the process of mathematical thinking.”

Many of his ideas have passed into the folk-lore of the subject, especially his use of the distinction between “instrumental” and “relational understanding”. But there are also other things that many find especially valuable, for instance, his simple descriptions of the notions of “concept” and “schema”, his use of the terms “expansion” and “reconstruction” of schemas instead of “assimilation” and “accommodation”, his “three modes of building and testing mathematical concepts”, his ideas on “reflective thinking” and his links between the cognitive and affective sides of mathematics in his theory of goals and anti-goals.

What is less well-known is that for 21 years he spent five weeks every summer running camps for up to 45 boys a week, taking delight not only in teaching camping, cooking and sailing, but also leading the

camp-fire singing in his mellifluous, well-rounded voice. Sean Neill – who was one of those boys, and later became a lecturer in education with Richard at Warwick – wrote:

At that time Milford Haven was little developed, and the cottage at Burton looked out over a deserted estuary. The steep hillside was covered with bracken, with some shelter from patches of young trees. Five or six bell-tents accommodated the boys; cooking was by primus stoves of uncertain age and temper, and several tents regularly fried their tent-pole for breakfast. As four of the tents were pitched in a line down the slope, when the weather broke, gravity asserted itself and the bottom tent filled up with peaty slurry and boys in wet sleeping bags. (In later years the tents were set on level standings and cooking was done outside, which considerably reduced the sporting element.)

Richard will be remembered with affection by those who knew him, not only for the rich legacy of ideas he has left in the psychology of mathematics education but also for his unfailing old-fashioned English courtesy and charm, and for his clarity in presentation which made him a great favourite on international speaking tours.

He continued to lecture around the world until he was taken ill at the end of 1994 and diagnosed in January 1995 with non-Hodgkin's lymphoma. He passed peacefully away at noon on Thursday June 22nd with his wife Valerie at his side. He was laid to rest on June 27th. It was a beautiful service, with a touching eulogy by a minister who knew him well, ending with a children's hymn, reflecting Richard's care and joy in communicating with young children. After the service his relatives and a few friends had tea and cakes in the warm sunshine at Pickwick's Cake Shop, where he had delighted in going regularly for cream cakes, a particular favourite since he was a child.

We are conscious of the personal effect he had, both those who were privileged to know him, and the many more who know him through his publications and seminal ideas. As representatives of successive generations of his research students—David Tall (as his last PhD student) and Michael Thomas (as a student of David Tall), we are honoured to present this tribute to his memory.

Richard Skemp was a great pioneer theorist in the Psychology of Learning Mathematics. With his passing a chapter closes, but his legacy lives on.

David Tall

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