

Origins

Eugenio Moggi, *Computational λ -calculus and monads*, 1989.

values (*int*) vs. computations ($T\ int$)

call-by-value ($int \rightarrow T\ int$)

call-by-name ($T\ int \rightarrow T\ int$)

Michael Spivey, *A functional theory of exceptions*, 1990.

John Reynolds, *The essence of Algol*, 1981.

data types (*int*) vs. phrase types (*int exp*)

call-by-value ($int \rightarrow int\ exp$)

call-by-name ($int\ exp \rightarrow int\ exp$)

But Reynolds missed *unit* and \star .