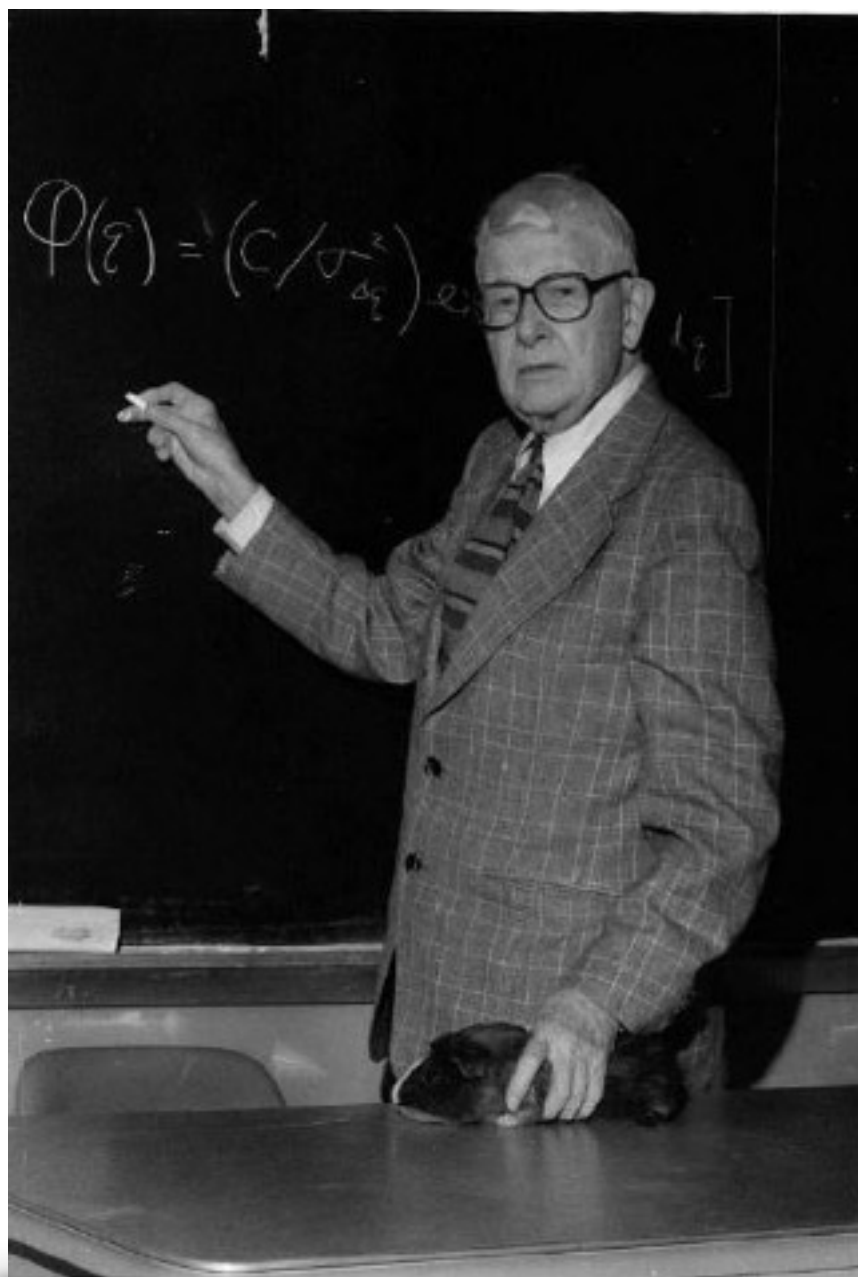


Misuse of Force

$$\begin{aligned}
 F_{ST} &= \frac{\sum_{i=1}^{\ell} \sigma_{q_{S(i)}}^2}{\sum_{i=1}^{\ell} \left[q_{T(i)} \left(1 - q_{T(i)} \right) \right]} \\
 &= 1 - \frac{y_{ST}}{y_T}
 \end{aligned}$$

The fixation index is thus not a measure of degree of differentiation in the sense implied by the extreme case by absence of any common allele. It measures differentiation within the total array in the sense of the **extent to which the process of fixation has gone towards completion.**

$$E[F_{ST}] = \frac{1}{4N_e m + 1}$$

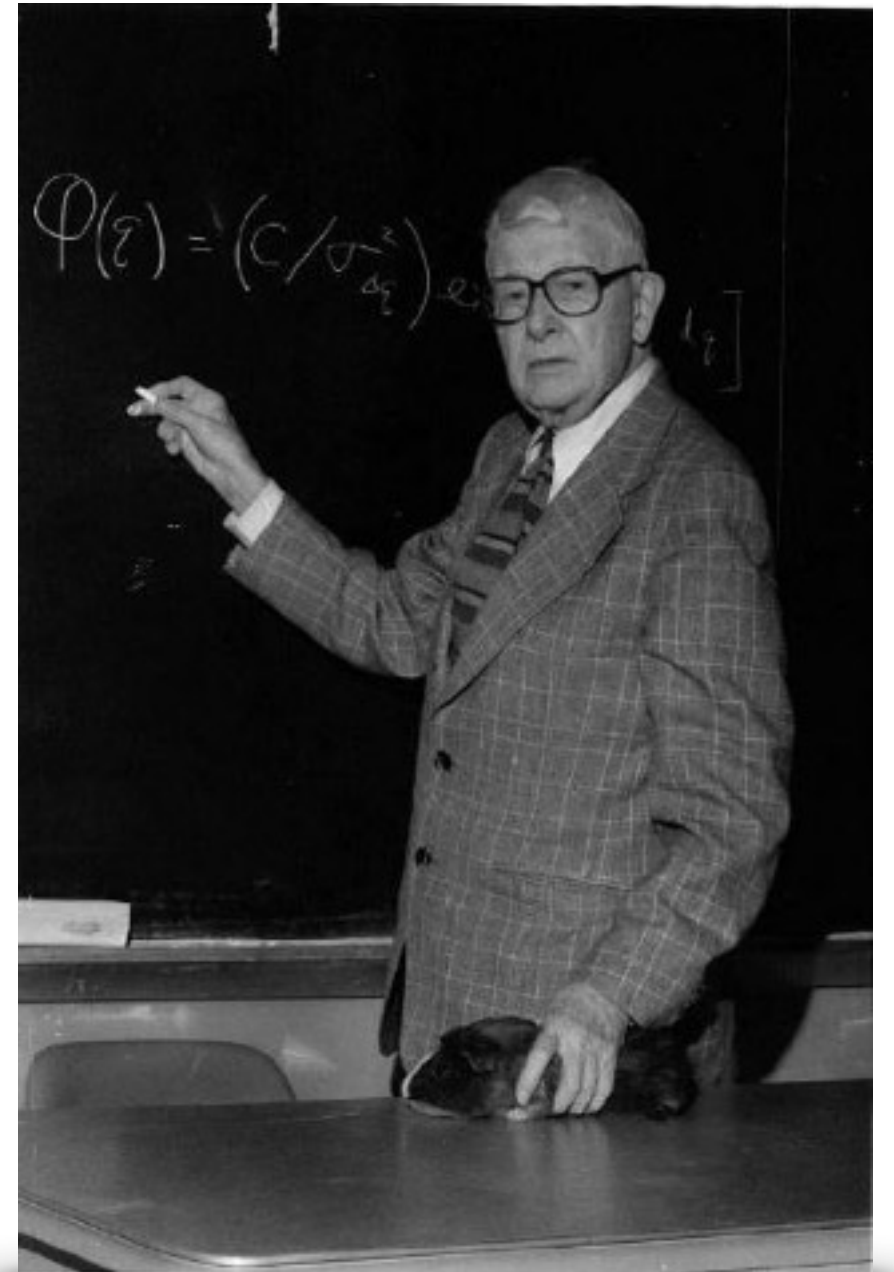


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The fixation index is thus not a measure of degree of differentiation in the sense implied by the extreme case by absence of any common allele. It measures differentiation within the total array in the sense of the **extent to which the process of fixation has gone towards completion.**

$$F_{ST} = \frac{\sum_{i=1}^{\ell} \sigma_{q_{S(i)}}^2}{\sum_{i=1}^{\ell} [q_{T(i)} (1 - q_{T(i)})]}$$
$$= 1 - \frac{y_{ST}}{y_T}$$

$$E[F_{ST}] = \frac{1}{4N_e m + 1}$$



Sampling Issues

F_{ST} is a population-level parameter.

- Structure parameters are influenced by sampling intensity and breadth
- All parameters are subject to bias, due to sampling issues.
- Some corrections are available.