

Barlow's *indigestibility*

In 1978 composer Clarence Barlow derived his own variation of Euler's formula, scaled to increase the degree of successively higher primes, calling it *indigestibility*. Like Euler, Barlow's formula calculates interval concordance based on the least common multiple.

For chords and pitch sets, Barlow defines the concept of *harmonicity sum* (the sum of all pairwise harmonicities in a set of pitches) and compares it with the total number of possible pairs to obtain *specific harmonicity*.

Barlow's formula

For a number, expressed (uniquely) as a product of primes:

$$\xi\left(\prod_i p_i^{k_i}\right) = 2 \sum_i k_i \frac{(p_i - 1)^2}{p_i}$$