1046-Q1-2009 **Stephen H. Harnish*** (harnishs@bluffton.edu), Bluffton University, 1 University Drive, Bluffton, OH 45817. *Juggling sequences with number theory–"A tale of two kingdoms".*

Certain infinite sequences have the property that an initial sum equals a middle sum. For example, the simple sequence $1, 2, 3, 4, \ldots$ has an initial sum of $1 + 2 + 3 + 4 + 5 + 6$ equaling 21 which is also the value of the middle sum $10 + 11$. We will explore whether or how this property holds for the sequences of even and odd numbers, the Fibonacci sequence, as well as the sequence: $1, 7, 19, \ldots, (3i(i + 1) + 1), \ldots$ Surprisingly enough, the answers to these questions lead to a number-theoretic resolution for an "anthropo-mathematical" tale of the cultural clash between two kingdoms respectively valuing monistic and dualistic sequential periodic juggling. (Received September 16, 2008)