

	Dual-energy theory	Single-energy theory
Fundamental mechanism for expansion identified?	Yes repulsive gravity	No unknown initial acceleration event
Direction in expansion defined?	Yes by repulsive forces between massive clusters and surrounding voids dominated by negative mass-energy	No directions undefinable in 3D space
Physically coherent model of expansion?	Yes	No initial singularity that should not expand
Physical understanding of accelerated expansion?	Yes	No dark energy mystery
Repulsive nature of energy derived from known laws of physics?	Yes repulsive effect of negative mass-energy already rooted in Newtonian physics	No dark energy hypothesis deliberately assigns negative pressure to positive energy
Can an apparent increase of energy in the universe be explained?	Yes mechanism of gravity generates energies	No dark energy increase remains mysterious
Fundamental physical understanding for initial origin of energy?	Yes energy generated from zero in a bifurcation process in a 'not quite so big' bang $E_{pos} + E_{neg} = 0$	No chance event assumed for the beginning of a big bang, as energy must have arisen somehow
Physical reason for spatial flatness?	Yes natural consequence of corresponding presence of positive and negative mass-energy	No exceedingly unlikely initial chance conditions required under the single-energy model
Symmetry of energy observed?	Yes fundamental symmetry of nature with a conserved value of zero	No assumption of asymmetrical events required conservation of energy violated
Methodological basis	application of fundamental principle of nature identified as the energy source in gravity naturally delivers physics of expansion and origin of energy	deliberate top-down additions in kinetic model of expansion as needed to establish consistency