quintessence

the kernel of the kernel

the essence of the essence  
~ the underlying nature of all the qualities of essence we experience   
the utmost elegance of manifestation

t h e n a t u r e o f m a n i f e s t p h e n o m e n a  
 *“Just as the nowness is how timelessness appears in time, and spaciousness is how emptiness appears in space, quintessence is how the absolute appears in manifestation.”*

Source: Diamond Approach teachings

It’s ontological nature is so absolutely absence that the absence glimmers with presence;  
When true nature reaches the extreme of nonbeing it cannot be differentiated from being.

t h e q u i n t e s s e n t i a l d i m e n s i o n

whose nature is the coemergence of clear presence and black emptiness,  
the jeweled forms of the universe are formations that the luminous emptiness assumes;  
the universe is nothing but self-luminous emptiness, where this self-luminosity assumes the forms of manifestation   
  
the paradoxical nature of reality

p u r e a w a r e n e s s – i s n e s s  
  
*“Quintessence is total intimacy, which we experience as utter silence, stillness, and imperturbability.”   
  
“Quintessence is at once an inscrutable mystery and a bright clarity.”*

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historically :

medieval cosmology and science   
the fifth element ~ *quinta essentia* ~ aether  
(alongside earth, fire, water, earth)

Aristoteles : the essence of the celestial world

similarly : modern quintessence as the fifth known “dynamical, time-dependent, and spatially inhomogeneous” contribution to the overall mass–energy content of the universe

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physics :   
  
a hypothetical form of dark energy, more precisely a scalar field minimally coupled to gravity, postulated as an explanation of the observation of an accelerating rate of expansion of the universe

introduced in 1986 by Ephraim Fishbach and in 1998 by Robert R. Caldwell

quintessence as a fifth fundamental force  
(in addition to: gravitational, electromagnetic, strong, nuclear and weak nuclear forces)

Cosmologists are exploring the possibility that the vast majority of the energy in the universe is in the form of quintessence. Quintessence has the striking physical characteristic that it causes the expansion of the universe to speed up. (Most forms of energy such as matter or radiation cause the expansion to slow down due to the attractive force of gravity. For quintessence however, the gravitational force is repulsive, which causes the expansion of the universe to accelerate.)

s c a l a r f i e l d

scalar ~ having only magnitude, not direction (e.g. temperature, pressure)  
scalar field ~ a function of a space whose value at each point is a scalar quantity  
(shows position of scalar quantities, magnitude ~ electric potential, isolines, e.g. thermal field)

d a r k e n e r g y

Theoretical proposals for a fifth-force are driven by the inconsistencies between the existing models of general relativity, quantum field theory, the hierarchy problem and the cosmological constant problem. The accelerating expansion of the universe has been attributed to a form of energy called dark energy.

Physicists speculate that a form of dark energy called quintessence could be a fifth force.

In physical cosmology and astronomy, dark energy is a proposed form of energy that affects the universe on the largest scales. Its primary effect is to drive the accelerating expansion of the universe.

Prior to the study of supernovae, scientists thought that the gravitational attraction of matter and energy in the universe would cause the universe’s expansion to slow over time. Since the discovery of accelerating expansion, several independent lines of evidence have been discovered that support the existence of dark energy.  
  
The exact nature of dark energy remains a mystery, some theories are: cosmological constant (Einstein) and scalar fields such as quintessence or moduli