

p193 DEACON AND CASHMAN
World views -- great chain of being, Creation p1
Effect can have no more perfection than cause
Physical change is only rearrangement

p194 Emergence is denial of eliminativism & pansychism p2
All causality is efficient cause
Fundamental attributes cannot appear p3

EMERGENCE

p195 J.S. Mill emergent properties in chemistry "no mere summing" p4
George Henry Lewes coined the term emergence
p196 George Henry Lewes cited on "compositional" properties
Followed by the British Emergentists
p196ff Pepper, Sperry, Putnam, Kim, Humphreys,

p197 Parts/wholes mentioned in role for Kim & Humphreys* pp4-5

p198 Focus on dynamics becomes important re problem of emergence

p198ff Ilya Prigogine ... ffe thermodynamics p.6

p199 Complex Dynamical systems theory more accepted today

Reasons to doubt nonlinear complexity alone accounts for... p.6

Deacon argues whole not greater than sum of its parts...

Constitutive absences will explain emergent attributes

p200 Second law is not a necessary law -- ubiquitous tendency

From constraint to self-organization to organism

p201 **KANT** p.10

Organism vs machines
Solely motive power
Formative power
Reciprocal cause and effect

202 Intrinsic generation of constraints

CD BROAD

p196 CD BROAD -- novel properties that emerged via compositionality p15
could exhibit discontinuous causal laws than those characterized
by comonents in isolation.

INTRINSIC GENERATION OF CONSTRAINTS

p202-203 Constraint-generation process and normativity

p202 Constraints as intrinsically generated

p202 Interpretation processes
Representation in "self-organized attractors in neural circuits"

EMERGENCE EX NIHILO

pp203-204 Emergence as the result of the hierarchy of constraints

JUARRERO AND RUBINO
Ladder or ramp -- Separate individual acts of Creation?
Nothing new under the sun -- only superficial change
Novel properties... are mere appearances
Change is illusory -- Heraclitus

Emergence is denial of preformationism
Discontinuities are explained by divine intervention
There cannot be more in the cause than in the effect
Change is only possible in non-essential matters
Substantive emergents [cannot] pop into existence

EMERGENCE

Emergence first used re New properties in Chemistry -- "not the mere sum"
George Henry Lewes first proposed the term emergence
George Henry Lewes on chemical compounds
Followed by the British Emergentists
Anthology selects authors only prior to 1960

PARTS/WHOLE ISSUE INVOLVED IN QUESTION OF EMERGENCE

Ilya Prigogine's theories

Complex dynamical systems theory (Complexity(more accepted today

Complexity theory can account for...

Implication is that Juarrero & Rubino do believe whole has properties parts do not

"Future is no longer implied in the present" (see first page Deacon/Cashman)

KANT

Organized beings versus machines
Solely motive power
Formative power
Reciprocity

THIS BOOK IS AN ANTHOLOGY WITHOUT COMMENTARY ON SUBSTANCE OF ARTICLES

CD BROAD

interpretation of Broad

FROM JUARRERO IN AGUILAR ET AL ANTHOLOGY

In Section on Top-Down Constraints as Semiotic, Juarrero states they introduce an element
of "normativity"

Last paragraph in section entitled NonLinear Dynamical Theory, Juarrero refers to constraints
in chemical processes as self produced as a result of endogenous dynamics

Entire Section on Top-Down constraints as semiotics

Self-organized state as "representational -- in section called Mind as a Complex Attractor

Context-sensitive constraints are generative, creating hierarchies of emergent systems
on top of systems