



BODY AND SOUL

Biological Theories of Generation

and

Theological Theories of Ensoulment



OVERVIEW OF PRESENTATION

- History of Embryological Theories
- Views of the Soul
- Putting Body and Soul Together
 - Ethical Implications
 - Theological Implications



EARLY GREEKS—HIPPOCRATICS

- Males develop faster than females.
- Process involves three stages:
 - completion of form;
 - first felt movement;
 - birth.
- Development from unformed to formed or undifferentiated to differentiate is ***EPIGENESIS***.

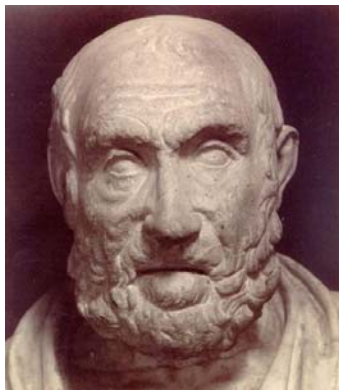


ARISTOTLE

- Development begins as a result of a power of the male parent communicated by spirit or breath (*pneuma*).
- Organs form in a progressive manner (inner before outer, head before feet). Aristotle was an epigeneticist.
- Males develop more quickly than females and the first movement is felt on woman's right-hand side.

GALEN AND MIDDLE AGES

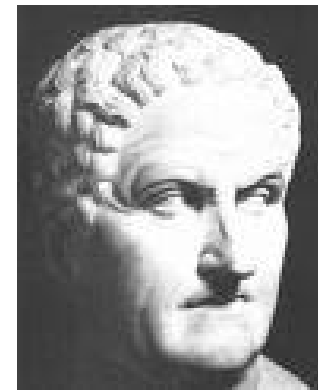
- Galen borrowed from both Aristotle and the Hippocratics (and so affirmed epigenesis).
- The Middle Ages relied on the Hippocratics, Aristotle, and Galen for their understanding of embryological development (and so affirmed epigenesis).



Hippocrates



Aristotle



Galen

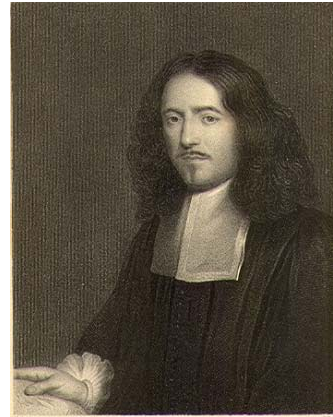


17TH/18TH CENTURIES: PREFORMATIONISM—1

- Types
 - Ovism (preformed embryo in egg)
 - Animalculism (preformed embryo in sperm)
 - *Emboîtement* (preformed embryo inside preformed embryo inside preformed embryo; all created in Adam or Eve in the beginning)

PREFORMATIONISM—2

- Basis for theory
 - Experimental and Observational Evidence
 - Philosophical and Theological Theories
 - mechanical philosophy
 - static universe
 - creation “completed” at the beginning



Malpighi



Library of Congress

Swammerdam



Wolff

18TH CENTURY—OPPOSITION



Pierre-Louis Moreau
De Maupertuis (1698 –
1759) and *Vénus
physique*

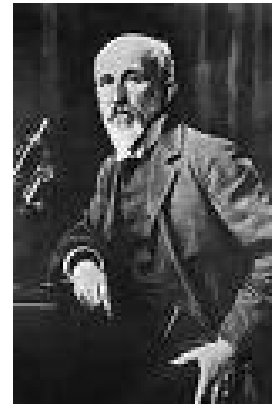
19TH CENTURY—EPIGENESIS AGAIN



Pander



Von Baer



Hertwig



Fol

- Observational data in 19th century confirmed epigenesis
 - still no mechanism
 - reliance on “developmental forces” or “vital spirits,” etc.

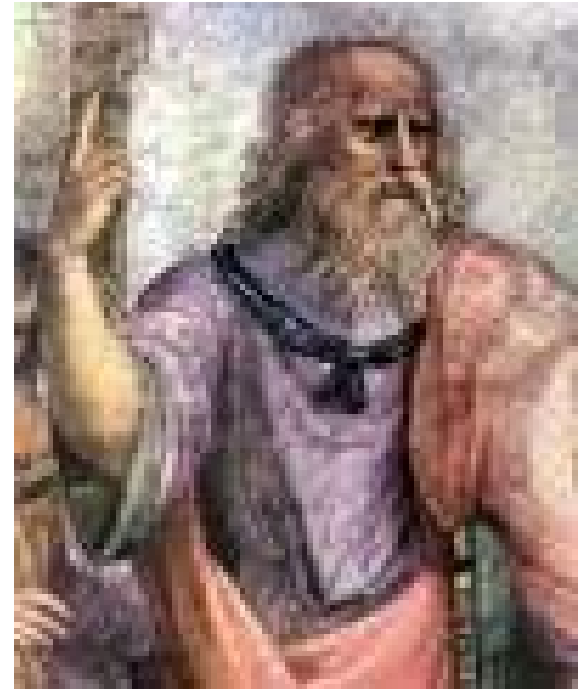


20TH CENTURY

- Embryology essentially descriptive through first part of the period.
- Modern field of “evo-devo” formed in latter part of 20th century.

PLATO AND THE SOUL

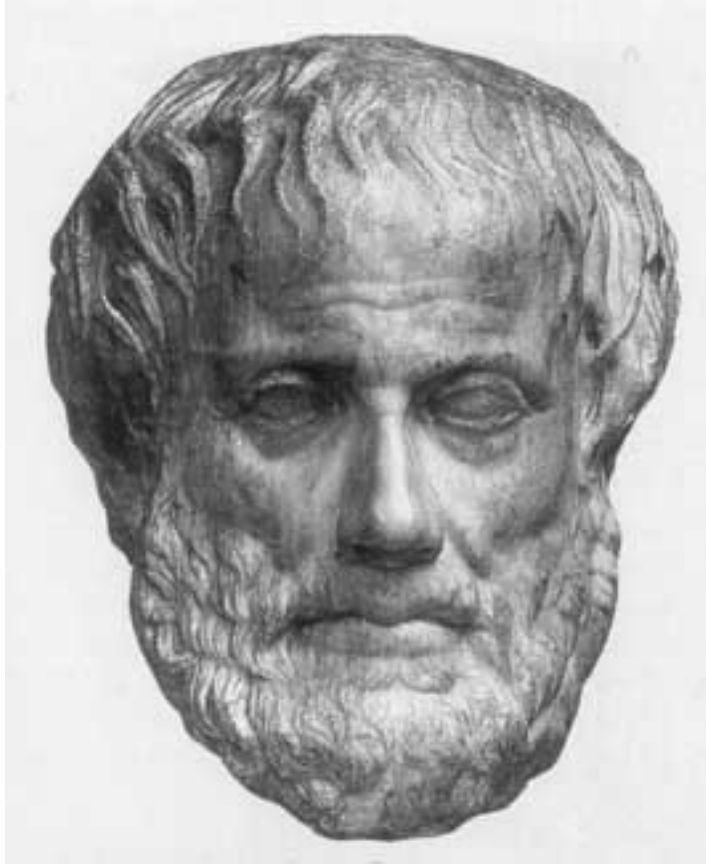
- Soul (*psyche*) is immortal, immaterial, and changeless.
- Soul is both “simple” and “tripartite” (with later Platonists identifying “soul” with “mind”).
- Soul becomes related to the body at birth.



Plato

(428/427 – 348/347 BCE)

ARISTOTLE AND THE SOUL—1



Aristotle (384 – 322 BCE)

- Soul (*psyche*, *anima*, *pneuma*) is better defined as “life-giving force.”
- Soul does not exist apart from matter (or the body).



ARISTOTLE AND THE SOUL—2

- All living things have a soul
 - Plant — nutritive soul
 - Animal — nutritive and locomotory souls
 - Human — nutritive, locomotory, and rational souls
- At conception, human has nutritive soul; “humanizing” soul requires 40 days for males and 90 for females and is associated with quickening.



JEWISH VIEWS OF THE SOUL

- Early views similar to Aristotle in that body and soul not separate
- *Nephesh*—possessed by all living animals
 - Translations include “soul,” “life,” “person,” “living being,” “blood,” “desire,” “breath,” ...
 - Issues (and solutions) surrounding the survival of *nephesh*



SUMMARY OF THESE VIEWS

- Plato, Aristotle, and some Jewish views — “delayed ensoulment”
 - Plato and some Jewish views: soul “arrived” at birth (with first breath)
 - Aristotle: soul present by quickening
- Plato—soul independent of body; continues after death; “essence” of person
- Aristotle and most Jewish views—soul does not exist apart from body; not immortal; little to do with identity



15TH/16TH CENTURIES—NEOPLATONISM

- Pope Leo X (1513)—immortality of the soul a Roman Catholic doctrine
- Calvin—"borrowed" Platonic language (but not Platonic himself)
- Cambridge Platonists, René Descartes, and Preformationists—soul immortal, immaterial, spiritual entity



ORIGIN OF THE SOUL

- Creationist Position:
 - Jerome (347 – 420)
 - God creates a new soul for each embryo
 - Dominant view in Middle Ages
- Traducianism:
 - Tertullian (ca.160 – ca.220)
 - Each individual's soul is connected to the soul that Adam received
 - Advocated by Martin Luther



SYNTHESIS AND IMPLICATIONS—1

- From early Greeks through Middle Ages,
 - embryo developed epigenetically;
 - ensoulment “delayed;”
 - soul understood in “baptized” Aristotelian manner.
- Roman Catholic Church’s views held
 - embryo not “human” before quickening;
 - arguments against abortion related to purpose and function of sex and marriage (not to “sanctity” of embryo)



SYNTHESIS AND IMPLICATIONS—2

- With changes in philosophy in the 16th century,
 - “delayed ensoulment” not possible;
 - “soul” became more and more identified with “mind.”
- Protestants reject all forms of abortion.
- Pope Leo XIII (1886) prohibits all abortions, even to save a woman’s life.

19TH/20TH CENTURIES ISSUES

- Connection between Darwinism and embryology
 - Ernst Haeckel's "ontogeny recapitulates phylogeny"
- Karl Rahner (1904-1984) argued for a return to Aristotelian "delayed ensoulment."





20TH CENTURY VIEWS ON SOUL

- Substance Dualism → Platonic
- Dual Aspect Theory → Aristotelian/
Jewish
- Materialism → Secular/Anti-Spiritual



20TH CENTURY INFLUENCES

- Neurosciences

- Absence of brain waves → death
- Presence of brain waves → hominization
- Implies “delayed ensoulment” and dual aspect theory

- Reproductive Medicine

- Up to 50% of all conceptions spontaneously aborted before there is knowledge of pregnancy with another 15-20% aborted after implantation
- Difficult to reconcile with immediate ensoulment



SO...?

- Common societal (church) view primarily Platonic (substance dualism), although some affirm Dual Aspect Theory
- "Soul" and "*Imago dei*"
- Need to rethink how we formulate ethical arguments
- Need to reaffirm and teach more clearly the doctrine of the resurrection of the body.