

Biology, Technology, and the Beginning of Life: An Appraisal of Recent Catholic Bioethics

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Those who seek to protect human life from a range of harms from its very beginning are wont to appeal to the authority of the biological sciences to substantiate the idea that life begins at conception. Science is indispensable in such discussions, but the reductionism and increasing technologization of biology as conventionally practiced compromises its contribution to bioethical discourse, introducing tacit philosophical ambiguities that need to be drawn out and evaluated. This is the task of the present dissertation.

To prepare the way, Part One includes three chapters that explore views of living beings and biological study. **Chapter One** introduces preliminary considerations drawing primarily on the work of philosopher Hans Jonas. **Chapter Two** treats the promising holistic biological approach of two scholars of New York's Nature Institute, Craig Holdrege and Stephen Talbott, whose writings offer a contemporary biological substantiation and elaboration of some of Jonas's profound insights about the organism and the sciences, including the surprising idea of "freedom" as the characteristic mark of living beings. Against this backdrop, **Chapter Three** considers the Altered Nuclear Transfer (ANT) proposal to acquire pluripotent stem cells through a genetically modified cloning technique. The writings of ANT-supporters William Hurlbut and Fr. Nicanor Austriaco, O.P., are examined, revealing a tension between the holistic principles they espouse and the presuppositions enshrined in the technique.

Part Two shows the relevance of these considerations for thinking about the beginning of life, apart from any question of a particular biotechnique. **Chapter Four** considers the significance of two kinds of claims about identifying life's beginning: first, the idea that a particular developmental event marks the beginning, and second, the idea that life is a continuum—hence, that no definitive beginning moment can properly be identified. In view of this discussion, two contrasting interpretations of fertilization as the developmental event that marks the beginning of life are considered: that of Dianne Irving (**Chapter Five**) and that of Maureen Condit (**Chapter Six**). These accounts each have a contribution to make but remain unsatisfying in part because of their insufficiently critical invocation of biological knowledge, a problem that becomes particularly evident when we consider the themes of agency, time, and artificiality as these touch upon the early embryo in natural and technologized contexts. The conclusion offers a glimpse of avenues along which a deeper view might be developed.