Compatibility between Evolutionary Biology and Classical Catholic Natural Law Theory*

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Although it is a well-known fact that the Catholic Church is not opposed to the evolutionary theory as Fundamental and Evangelical Christians do, how Catholic thinkers draw theological implications from evolution is not widely known. The objective of this article is to examine one of the theological implications derived from evolutionary biology construed by the Catholic Church. It is important to emphasize that the author endorses neither evolutionary biology nor Catholic theology. Rather, the following discussion is built on a "what-if" fashion. To be specific, if evolution were right, would it have generated a world view that is incompatible with Catholic theology? If the Catholic Church were correct that evolution and Christian beliefs are free of contradiction, did she give a defensible rationale? Sometimes it is difficult to maintain a dialog when a quick judgment is made against notions that are seemingly incompatible with one's own theological tradition. Here I urge the readers to keep an open mind to

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the following discussion.

> Father Joseph Koterski, a Catholic philosopher of natural law, asks an interesting question: One of the important presuppositions of classical natural law theory is the presence of such a thing as human nature . . . Does the theory of evolution . . . negate all natural law and natural right claims by reducing us to just another animal species — more intelligent, perhaps, more clever, and more powerful, but no different in kind? [1]

The answer offered by Father Koterski is definitely "No." According to Koterski, the differences between human beings and other animals should be expressed in terms of "kind," not just of "degree." To be specific, human beings have developed sophisticated languages, and we are capable of making deliberate choices while animal behaviors are driven by instincts only. It doesn't matter whether the human species is the product of some sort of random variations or not. As far as humanity is a "natural kind," evolutionary theory does not invalidate classical natural law theory. Koterski contends that his ideas are based upon Mortimer Adler, an Aristotelian who evaluates the claim of distinctness of humans from other species in the book entitled *The Difference of Man and the Difference It Makes*. [2]

However, Koterski's arguments have three major shortcomings. First, the case that "humans and animals are different in kind rather than in degree" does not seem to be well supported by recent scientific evidence. On the contrary,

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1 J. Koterski, *Natural Law and Human Nature*, *Part II* (Chantilly, VA: Teaching, 2002), 90.

2 M. Adler, *The Difference of Man and the Difference It Makes* (New York: Holt, Rinehart, & Winston, 1967).

biologists, animal psychologists and cognitive ethologists have collected ample data and developed compelling arguments to show the opposite. Second, if the premise of natural law is that humans constitute a distinct kind, natural law as a moral code would be seriously challenged. And such doctrine may open the door to human rights abuse and even atrocity. Last, in the Western intellectual tradition, the rationality of human beings and the rationality in nature are interrelated. If the nature of all biological beings is a product of chance fluctuations, as evolutionary theorists suggest, it would not be sensible to talk about essence, *telos*, and rationality of human beings as the foundation of natural law. This paper consists of two major sections. In the first part, theories developed by Koterski and Adler will be briefly introduced. Next, my three counter-arguments will be elaborated. Also, I will discuss certain incompatibilities between human-nature-as-we-find-it and human-nature-as-it-could-be-if-it-realized-its-telos, as well as how empirical sciences could be helpful to classical natural law theory in terms of understanding practical reasoning.

I. Koterski's Theory of Natural Law

It is important to point out that, as a Catholic priest, Father Koterski does not subscribe to every notion of evolutionary biology, and especially not to what are often considered to be the metaphysical foundations of some varieties of evolutionary biology, such as materialism, reductionism, and naturalism. Indeed, in his book he devotes a lengthy discussion to questioning the plausibility of evolutionary biology by citing the work of Michael Behe, a Catholic biochemist who introduced the idea of "irreducible

complexity." [3] Nonetheless, the validity of evolutionary biology is not the central theme of this paper. [4] Instead, the focus here will be centered on Koterski's theory of natural law, which can be summarized in the following six notions:

First, natural law in ethics is a moral concept while natural law in science connotes regularity of natural phenomena. Second, natural law theory stands or falls with the claim that there is a distinctive human nature, not the claim of whether this nature has evolved or been created. Third, natural law theory claims that there are certain patterns of activity that intrinsically frustrate our natural ends. Fourth, evolutionary theory does not invalidate the assumptions of distinctive human nature and natural ends. Fifth, although evolutionary biologists have found that there is no biological determination that human beings always act morally, it does not invalidate natural law as a moral code, because acting morally always requires making a choice rather than following an instinct. Last, what natural law theory offers is not a description of how human beings necessarily act, but rather some prescriptions for how we ought to act in order to fulfill our natural ends as rational beings. [5]

Natural law in the context of ethics is a moral code, while its scientific counterpart is a description of observed

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3 M. J. Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution* (New York: Simon & Schuster, 1996).

4 Readers who are interested in Behe's "irreducible complexity" are advised to consult C. H. Yu, "Philosophical Assumptions in the Discussion of Irreducible Complexity, Naturalism, Demarcation Criterion, Probability, Law, and Adequate Explanation," *Jian Dao Journal* 21 (2004): 109–27.

5 Koterski, *Natural Law and Human Nature*, 90–108.

regularity, such as gravity and Hook's law.[6] According to Koterski, natural law in ethics and in science are in fact related. The imperatives that are typical of natural law theory always involve evaluation of human conduct in order to unveil invariant and even universal principles, whereas the scientific law of nature also involves inferences of the hidden and immutable order of the universe. However, problems arise when the latter type of natural law is extended to the first type. A typical example is the claim that species brutally fight each other for self-preservation, and thus wars and struggles are justified. This is the well-known "naturalistic fallacy," in which "what ought to be" is derived from "what is."[7] Nonetheless, in a secular society where theistic metaphysics is not universally accepted and evolutionary biology becomes more and more popular, one cannot evade the moral implications emanating from evolutionary biology by simply rejecting the evolutionary hypothesis. In this context Koterski asks, "Even if evolutionary hypothesis were true, could it invalidate classical natural law theory?" An immediate response from the readers may be: "What is classical natural law theory?" As a Catholic scholar, Koterski adopts the classical natural law theory originated from

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6 Some scholars dispute on the comparability between scientific natural law and ethical natural law. For example, Kelsen argues that in science natural law is considered a relation of necessity or a principle of causality. If a metallic body is heated, it always expands. However, a rule of morality connects is based on normativity, not causality. If a man is in need, his friends ought to help him, but may not help him. See Hans Kelsen, "The Natural Law Doctrine before the Tribunal of Science," *Western Political Quarterly* 2 (1949): 481–513.

7 For a thorough discussion of naturalistic fallacy in biology/ethics, consult J. Maienschein and M. Ruse, eds., *Biology and the Foundation of Ethics* (Cambridge, U.K.: Cambridge Univ. Press, 1999).

Aristotle and "baptized" by St. Thomas Aquinas, in which function, teleology, and human rationality are put together as the foundation of natural law.[8]

The central thesis of Koterski's theory is that even if we put aside theistic ontology and follow the game rules of evolutionary biology, the classical natural law theory remains intact because humanity is still considered a distinct kind. The status of humans as a natural kind justifies natural law as a moral code in human community. This special status is manifested by the fact that humans possess three unique features, namely, linguistic ability, rationality, and will. Koterski argues that although other animal species show some kind of signaling system, only human language exhibits complexity and flexibility. The ability to express so many different kinds of thought and to do so in an abstract fashion, the ability to use negotiations, the ability to do intentional conscious deception of others and the ability to make jokes show us how distinctive we are.[9]

In addition to language, thinking and choosing are other activities that are specifically distinctive of humanity as a natural kind. It is precisely on the basis of power of thought and power of choice that we can make moral assertions, and in particular that natural law finds its basis. We are responsible for our behaviors because we can think about whether a particular act is right or wrong, and also we have free will to choose our action. It does not negate our moral responsibility even if what we have chosen to do results from our nature and that nature is a product of an evolutionary scheme. On the other hand, no animal of any other species has either the kind of knowledge or the power of making

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8 Koterski, *Natural Law and Human Nature*, 97.

9 Ibid., 104–5.

deliberate choices that are required for entering the sphere of morality and immorality. In Koterski's view, we do not hold a tiger morally responsible when it attacks a human. Sometimes we are inclined to praise the loyalty of a dog, but this praise is devoid of moral content. Koterski asserts that using the Ockham's razor, we can explain animal behavior, even the kind of so-called "loyalty" that we love to praise, on the simpler explanations such as animal instinct, and hence, that we do not need a more complicated hypothesis, such as a moral deliberation of dogs.[10] In brief, for Koterski, evolutionary biology does not challenge classical natural law theory because the distinctness of humans, as manifested in the attributes of linguistic ability, rationality and will power, could be adequately derived from either a naturalistic or a theistic source. Koterski emphasizes that he is enormously indebted to the works of Adler, which will be discussed next.

II. Adler's View of the Difference in Kind

Since the Copernican revolution, humans and their inhabited earth have no longer been regarded as the center of the universe. Evolutionary biology further shook our privileged status as a distinct kind of being since human beings are nothing more than one of the many species that resulted from random variations. But in the book *The Difference of Man and the Difference It Makes,* Alder analyzes the differences between humans and other animals, and concludes that they truly differ in kind rather than in degree.

According to Adler, there are four modes of differences, namely, difference in degree, apparent difference in kind, superficial difference in kind, and radical difference in kind.

10 Ibid., 105–6.

In the first mode, objects are situated in a continuum such as an interval-scale. For example, both a bigger triangle and a small triangle share the same geometrical features except that the former has a larger area. In the second mode, one object apparently possesses a characteristic totally lacking in the member of a given kind. However, this so-called difference in kind is due to the absence of intermediate forms or qualities. If they were present, they would fill the gap between the two objects. This apparent difference in kind occurs when the measurement instrument is primitive. As the instrument gets more and more precise, the discreteness of the objects disappears. For example, the concepts "hot" and "cold" appear to be discrete. However, when we are able to measure temperature in terms of Kelvin or Celsius, we realize that "hot" and "cold," like other physical phenomena, fall along a continuum. In the third mode, again, one object possesses an attribute that cannot be found in other objects, but the difference could be fully explained by an underlying continuum with a threshold or a critical point. The distinctness of one object results from the property-value of the object being below or above a certain threshold. For instance, ice, water, and gas appear to be different from each other in kind. Nonetheless, this so-called difference in kind is caused by their differing temperature. In the last mode, the manifest difference in kind is real because altering the amount of property-value of one object could never make it like the other. For example, in the past alchemists mistakenly believed that gold and other metals were only superficially different. Holding to this false hope, they attempted to turn less precious metal into gold by purifying them with heat.[11]

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11 Adler, *Difference of Man*, 19–35.

But gold, silver, iron and copper are radically different objects.

Although scientists who embrace the evolutionary hypothesis view the difference between humans and other species in terms of degree, and the term "evolution" implies continuity, Alder emphasizes that human beings have propositional languages and conceptual thoughts, which are totally absent from other species. Apparent difference is ruled out because our advanced scientific apparatus has enabled us to employ quantitative research methods in biology. The remaining question is whether the difference is radical or superficial. Adler says that researchers may approach this question on the level of the neurological explanation. He elaborates this approach as follows:

> If this question can be answered by showing that the only neurological difference between men and other animals, needed to explain man's having and other animals' lacking a propositional language and the power of conceptual thought, consists in a difference in degree of brain magnitude and complexity, then the issue can be resolved in favor of the proposition that man's difference in kind is only superficial, not radical . . . it must be shown that, in the continuum of degrees of brain magnitude and complexity, there is threshold above which propositional language and conceptual thought occur and below which they do not; and that the size and complexity of man's brain lies above this threshold, and the brains of all other animals fall below it. [12]

The preceding argument assumes that speaking, thinking, and choosing could be reduced to the configuration

12 Ibid., 192.

of the neurological structure. Inevitably, this discussion leads us into the realm of the philosophy of mind. Adler is opposed to the reductionist position proposes by the neurological explanation. On one hand, he agrees that the biological structure of the brain is an indispensable condition of our mental process. On the other hand, he argues as follows:

> Will it ever be possible to show by experimental or clinical neurology that the working of the brain — granted that we understand how it works as well as that can be understood — is more than a necessary condition of conceptual thought? . . . No matter how far the neurologist can go in demonstrating, experimentally or clinically, the dependence of conceptual thought upon brain processes, that dependence may mean no more than that the brain is a necessary condition of conceptual thought. [13]

In short, Adler is skeptical of transforming the biological processes from a necessary condition to a sufficient condition for mental processes.

III. Animal Mind

The preceding arguments are not flawless. First, recent scientific evidence might reverse assumptions about human intellectual uniqueness. Some scholars admitt that this oversight is caused by a century of academic neglect. For a long time topics such as “animal intelligence” and “animal consciousness” were forbidden territory and subjected those who conduct this type of research to criticism and ridicule, because the scientific community in general, was too

13 Ibid., 236–37.

obsessed with the idea of human uniqueness. [14]

1. Signaling Systems of Animals

It is true that only human beings are capable of using propositional languages. But many other species can use certain semantic alarm calls that are qualified as intelligent signaling systems. Consider the following example**:** Vervet monkeys spend most of their lives in stable groups consisting mostly of close relatives. When they see dangerous predators they emit at least three types of alarm call, depending on what kind of predator is approaching. One type is elicited by the sight of a leopard or other large carnivore. On seeing a martial eagle, they give an acoustically quite different alarm call; and when the monkeys see a python, they give another type of alarm call. This differentiation of alarm calls lead to different types of responses. The proper response to the leopard alarm call is to climb a tree. This action can protect them from a leopard but would make them vulnerable to martial eagles. The appropriate response to eagle alarm calls is to move into thick vegetation, but it would be not be a safe place if the predator is a leopard. In response to a snake alarm call, the vervets simply stand on their hind legs and look around the area. But this action makes them being exposed to the potential attack from either a leopard or an eagle. Animal psychologists assert that these alarm calls are injunctions rather than statements about the kind of danger. The leopard alarm calls might mean something like "go climb a tree," or the snake alarm calls might mean "stand up and look around." In other words, this signaling system

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14 D. Griffin, *Animal Minds: Beyond Cognition to Consciousness* (Chicago: Univ. of Chicago Press, 2001), 11; J. L. Gould and C. G. Gould, "Reasoning in Animals," *Scientific American* (Winter 1998): 52–58.

could be very sophisticated, because the meaning of the message might be about what exactly to do. [15]

Brian Skyrms, a philosopher of science, further elaborates this signaling system as a learning process. In some situations a vervet monkey might send a vague message to her group when it can only tell that the predator may be a leopard or a snake. As mentioned before, those three different evasive actions are mutually exclusive. The optimal action in response to a snake is a detrimental action in response to a leopard. But it is not hard for vervets to develop new messages. In fact, vervets that have migrated to new localities where they face new predators that call for new evasive actions have developed new messages and an appropriate signaling system. In brief, animals do not mindlessly follow their instinct; they are able to develop a sophisticated signaling system.[16]

2. Thinking in Other Species

Although it is not entirely conclusive whether species other than humans can think, some well-studied cases of unusual foraging behavior in other species suggest that some species have an ability to learn and to plan. For instance, biologists in America and Japan observed that some herons employed the technique of bait fishing. They toss a morsel of food or a small twig into the water, and when a curious fish rises to investigate, the bird grabs it. Bait fishing has been observed in a few widely scattered spots in both America and Japan. It appears on its own, does not seem to further spread to other birds (except once in Japan), and then vanishes. Given

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15 Griffin, *Animal Minds*, 166–68.

16 B. Skyrms, *The Stag Hunt: Evolution of Social Structure* (Cambridge: Cambridge Univ. Press, 2003), 63–64.

the rarity of use of this technique, biologists asserted that it is impossible that bait fishing is genetically programmed. Rather it is most likely that the trick has been independently invented by many different herons. Learning behaviors are also observed in a wide variety of species, such as rats and octopus.[17]

More importantly, after conducting mirror tests on animals for over three decades, psychologist Gallup concludes that not only are some animals aware of themselves, but also such self-awareness enables them to infer the mental states of others. A mirror test is an experimental setting in which animals are put in front of a big mirror in order to detect whether they can recognize their own image. It is found that chimps and orangutans seem intent on using the mirror to look at and inspect parts of their bodies that they have never seen before. Also, they respond to strange marks on their faces. It is concluded that species that pass the mirror test are able to sympathize, empathize, and attribute intent and emotions in others — abilities that some might consider to be in the exclusive domain of humans. [18] In the same vein, Donald Griffin asserts that animals sometimes experience at least simple thought; sometimes awareness of animals probably includes memories of past perceptions or anticipations of future events. [19]

In summary, in view of recent findings in psychology and biology, the notion that "humans and other species differ in kind" does not seem to be conclusively established.

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17 Gould and Gould, "Reasoning in Animals," 57.

18 G. Gallup, "Can Animals Empathize? Yes!" *Scientific American* (Winter 1998): 66–71.

19 Griffin, *Animal Minds*, 3–5.

Nonetheless, is planning and learning among animals different from rationality among humans in kind? Whether a signaling system in the animal world and a linguistic system in human community are the same kind is controversial, too. Could this difference be due to different levels of complexity of brain structure in terms of the number of neurons? Eventually we come back to the problem of philosophy of mind.

Evolutionary biologists and psychologists tend to believe that the mind can be explained by the brain and thus they enthusiastically call for abandoning the Christian spirituality and the Cartesian dualism of mind/body.[20] However, this is a proposal only, not a proven finding, and no wonder it has been strongly disputed by philosophers of mind. Understanding the biological processes of how the brain functions is regarded as the "easy problem of consciousness," while understanding the mental processes, which includes addressing the question of why performance of brain functions is accompanied by a conscious mind, is considered the "hard problem."[21] The gap between the easy and hard problems is termed the "explanatory gap" by philosopher Joseph Levine. The conclusion of the mind-body problem made by Levine is that there is no conclusion. The very last sentence of his book is: "The mind-body problem is still a problem." [22] Because the hard problem remains unresolved and the explanatory gap remains wide, possession

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20 Frans de Waal, "Evolutionary Psychology: The Wheat and the Chaff," *Current Directions in Psychological Sciences* 11 (2002): 187–91.

21 D. J. Chalmers, "The Puzzle of Conscious Experience," *Scientific American* (Winter 1995): 30–37.

22 J. Levine, *Purple Haze: The Puzzle of Consciousness* (Oxford: OUP, 2001), 76; N. C. Manson, "Consciousness-Dependence and the Explanatory Gap," *Inquiry* 45 (2002): 521–40.

of linguistic ability, rational thought and consciousness seems to distinguish humans from other species. In other words, current philosophy of mind tends to favor Koterski and Adler, because it is true that so far neurologists cannot reduce mental processes to biochemical reactions, nor can they prove that the brain structure is a sufficient condition for consciousness.[23]

Unfortunately, in spite of the existence of the explanatory gap, certain logical flaws exist in Adler's and Koterski's argument, which can be summarized as follows:

- There is no evidence to support the notion that the biological structure expressed in terms of degree (the number of neurons) can *sufficiently* explain mental processes.
- Therefore, human beings constitute a distinct kind, which is characterized by cognition and consciousness that cannot be fully explained by a neurological approach.

To speak bluntly, this argument is a form of *appeal to ignorance*. The establishment of the conclusion is based upon the lack of explanation for mental processes. Scholars who adopt materialistic and naturalistic positions could apply the same logic to argue for their case:

- There is no evidence to support the notion that mental processes can be *necessarily* and *sufficiently* explained by the existence of a soul or a spiritual realm. Although there is no proof that the brain structure is a sufficient condition for

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23 C. Koch, *The Quest for Consciousness: A Neurobiological Approach* (Englewood, CO: Roberts, 2004); G. M. Edelman, *Wider than the Sky: The Phenomenal Gift of Consciousness* (New Haven, CT: Yale Univ. Press, 2004).

mental processes, at least it is commonly agreed that it is a necessary condition.

- By using the Ockham's razor, as Father Koterski suggests, we can explain mental process in simpler terms such as biological structures, and hence, we do not need a more complicated hypothesis.
- Language and rationality in humans, as well as signaling systems and simple learning in other species, are simply based upon their differences in biology.
- Therefore, human beings do not constitute a distinct kind.

If the notion of human beings as constituting a distinct kind is not firmly established, it is doubtful whether such an assumption can be viewed as the foundation of classical natural law theory, as Koterski suggests.

IV. Superior Race as a Distinct Kind

Using the concept "distinct kind" as a justification of natural law may open the door to human right abuse and even atrocity. I am not suggesting that this was the intention of Father Koterski, but this approach of justifying natural law may lead to unwanted side effects. Let's conduct the following thought experiment: A century from now a technologically advanced nation applies genetic engineering to all of its citizens, and as a result, this super-race is different from the rest of human beings in terms of "kind" rather than in terms of "degree." In this case, would a new natural law emerge, in which killing "inferior" humans is justified in the same way as many people are now justifying the killing of animals? One may say that moral code or natural law should not be based upon hypothetical cases, but the preceding scenario is not entirely imaginary. In

human history numerous groups have considered themselves different from others in kind, which has led them to also consider themselves superior. Adler is well aware of the danger that a sense of distinctness can lead to a sense of superiority:

> Men differ from one another in degree, sometimes quite remarkably if one considers the extremes of superior endowment at one end of the scale and of subnormal deficiency at the other . . . Rightly or wrongly, the ancient Greeks conceived themselves as vastly superior to the barbarians; the African slave traders and the American slaveowners of the seventeenth and eighteenth centuries regarded the Negroes as barely human; in this century, the Nazis looked upon Jews and Slavs as racial inferiors.[24]

As a matter of fact, many oppressors do not necessarily view their victims as being inferior in degree. Rather they justify their maltreatment against the oppressed by employing a discrete classification. Let me elaborate the Nazi example mentioned by Adler. Holocaust scholar Daniel Goldhagen argues that from at least the early 19th century, over a century before the rise of Hitler, virtually all Germans subscribed to an "eliminationist" variant of anti-Semitism. In the past Europeans viewed the differences between Christians and Jews on religious and cultural terms, and therefore some Christians still accepted converted Jews into their community. But the new German anti-Semitism held that Jews were genetically different from Germans and the inherent contamination of their blood was not alterable. As a result, to Nazi Germany the ultimate solution to the "Jewish

24 Adler, *Difference of Man*, 8.

problem" was their annihilation.[25]

The same pattern can be found in Communist regimes. In the 1980s I attended a seminar concerning human rights conditions in China. When one audience member asked the speaker how the Chinese government could rationalize human rights abuse, the speaker answered, "Those dissidents are not considered the 'people'. They are classified as 'enemies of the people.'" At first glance the classification of "people" and "enemies of the people" should be based upon their political ideology. But as a matter of fact, many so-called "political dissidents" did not say even a single word or do a single thing. During the Great Cultural Revolution the "red type" people, who were born in pro-revolutionary families, were glorified for these inherited attributes. But many others were labeled as the "five black types" solely by their blood and origin. If their parents or grandparents were landlords, wealthy peasants, former officials of the Nationalist government, or members of any politically incorrect group, it was believed that somehow they inherited the counter-revolutionary inclination from their kin. In August 1966, for instance, after killing several "black types" in Tai Hin, the Red Guards gathered their relatives from other provinces and then killed all of them. Some victims were as young as 38 days old.[26] The same absurd philosophy is also observed in the Cambodia's genocide during the rule of Red Khmer from 1975–79. Innumerable amount of children and babies were executed and their only crime is

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25 Quoted by James Walker, *Becoming Evil: How Ordinary People Commit Genocide and Mass Killing* (Oxford: OUP, 2002), 27.

26 Kar-key Yan and Pan Gao, *Ten-year History of Chinese Cultural Revolution* [in Chinese] (Hong Kong: Tai-kung Daily), 1:74–75, 111–16.

their biological identity. [27]

Take sexual discrimination as another example. In 1595 some German intellectuals proclaimed that women were not human by presenting these arguments: During procreation, men was the efficient cause while women were the instrument cause. If a smith forged a sword with the help of a hammer, the hammer remained his tool, not a part of his body. By the same token, women did not become part of mankind when man used her to populate the earth by the human race. In addition, the word "homo" came from "humus," the materials out of which only man was made. According to the Scripture, Eve was merely created from a rib of Adam. Because she was not originally created made of humus, she could not be human.[28] Today these arguments are laughable, but ancient Greek philosophers also thought that in the reproduction process a woman's womb was just a place holder, and probably medieval scholars inherited this idea from the Greek culture. It is important to point out that the discrete differences between men and women as seen by those Greek and German thinkers were not considered in psychological, sociological, or political terms; rather these were examined in a biological term in theological clothing. It is not surprising that in many cultures superiority of males were taken for granted. In light of the history of genocide and oppression, to consider males as constituting a distinct kind on the basis of biological differences from women could

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27 Marie Alexandrin Martin, *Cambodia: A Shattered Society*, trans. Mark McLeod (Berkeley, CA: Univ. of California Press, 1989), 197.

28 Manfred Fleischer, " 'Are Women Human?' The Debate of 1595 between Valens Acidalius and Simon Gedicus," *Sixteen Century Journal* 12 (1981): 107–20.

be a very dangerous idea!

Furthermore, there is a hidden assumption in Koterski's argument: Those unique features possessed by human beings — rationality, linguistic ability, and will — are considered "superior" to other unique features possessed by other animals. For example, a bird can fly while humans cannot. But we do not grant birds some kind of special rights according to this aspect of the nature of birds. Ethical judgments about how we treat other humans are strongly influenced by our ranking of superiority. When we view others, including other humans or members of other species, through the prism of difference in degree, our sense of superiority may not be as extreme because we still view "them" as "us" except that what they have is to some degree "less" than what we have. However, when we view the difference between "us" and "them" as a difference in kind, our sense of superiority tends to be enormously inflated and, consequently maltreatment can easily be justified.

Koterski defends his position by extending moral codes to other kinds of biological entities. To be specific, he argues that even if we were to discover that other animals or other creatures from outer space possess rationality, we could simply extend the boundary of natural law or the boundary of what it is that deserves moral protection.[29] While it is not hard to extend the boundary to protect animals, as some animal right activists are doing, it might be difficult to extend our natural law to advanced outer space aliens. Instead, it could well be their decision whether they need to

29 Koterski, *Natural Law and Human Nature*, 105.

extend their natural law to protect us.[30] As indicated in the above super-race scenario, it is totally logical for the aliens to apply Koterski's theory of distinct kind to treat us in the same way in which we treat animals on this planet.

If someday what we read in science fiction, like encounter with a super-race or an advanced alien culture, were actualized, Chinese philosophy would not have any difficulties in extending our natural law and moral code because that moral code is not specifically tied to the idea of humans constituting a distinct kind. The notion of "difference in degree" can be found in all three major Chinese intellectual traditions, which are Confucianism, Taoism, and Buddhism. A Chinese philosopher belonging to the Confucian School during the North Sung Dynasty, Chang Zai (1020–77), forwarded his noble goal of promoting a universal ethics by supporting the idea of treating every entity in the universe, including humans, animals, and inanimate objects, as members of the same kind. This notion is based on the philosophical premise that all diverse entities in the universe can be traced back to a single source, or a universal principle, which is known as *Li* by many Chinese philosophers during the Sung and Ming periods.[31] Chang Zai is not alone. Taoist Chung Zi says, "The heaven, the earth,

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30 Yao-ming Fung, a Chinese philosopher, used an imaginary alien race to illustrate the problem of "distinct kind": The only food source in an advanced alien civilization is contaminated. The aliens discovered that humans on the planet earth are eatable and nutritional. To them humans are just lower animals. Fung asked on what ground we can judge eating humans as immoral. See Y. M. Fung, "The New Confucian World in Dumans," 1998, http://www.cuhk.edu.hk/ics/21c/issue/article/980521.htm (accessed April 11, 2004).

31 Wing-tsit Chan, *Concepts and History of Sung-Ming Li Hsueh* [in Chinese] (Taiwan: Central Research Institute, 1996), 238.

and I coexist in a harmonious manner. Everything is united with me." He also equates animals with humans because both of them pursue their happiness in the same way; there isn't a universal criterion to distinguish humans from other animals.[32] Also, it is a well-known fact that mainstream Buddhists object to killing animals because they view them as members of the same kind as humans.

In summary, the foundation of natural law and moral code on the "natural and distinct kind" assumption seems to be egocentric: we consider ourselves to be rational and superior, and thus deserving of special treatment. This mentality, however, may encourage dominion of one kind over other kinds. It is advisable to give the Chinese philosophical ideas a serious consideration.

V. Rationality in Human and Rationality in Nature

Last but not least, although natural law in science and natural law in ethics, as Koterski suggests, are not totally identical, natural law theory, in the Thomistic framework, relies on a symmetrical relationship between human rationality and rationality of nature. Natural law is a moral ideal that first arose from the Stoics and was later absorbed into Christian theology by St. Thomas Aquinas. Since then this tradition has been assimilated into the European culture, particularly manifested by the fact that it sees the "rationality of the nature" and the "rationality of humanity" as identical. Afterwards, Protestantism became the heir of this idea.[33]

However, if one assumes that evolutionary theory is

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32 Ching-tung Wei, *History of Chinese Thought* [in Chinese] (Taiwan: Buffalo, 1992), 184–85.

33 C. L. Benson, "Troeltsch in Context," *British Journal for the History of Philosophy* 10 (2002): 653–64; H. Hirando, "Leibniz's Cultural Pluralism

true, the presupposition of the rationality of nature is no longer acceptable and the relationship between rationality of humanity and rationality of nature falls apart. As Koterski correctly points out, the evolutionary hypothesis implies a form of materialism, which proposes that the existing world is nothing more than a consequence of random variations, rather than resulting from intelligent design. As a product of random variations, one may argue that the existing world is not as well-structured and optimal as it might have been — let alone being the best of all possible worlds as Leibniz proposes. If human nature is considered a part of the nature, absence of rational order in nature implies that there is no such thing as essential human nature. Brian Zamulinski, who adopts the evolutionary theory, goes even further to dismiss the entire natural law theory of St. Thomas Aquinas in a hostile tone:

> Aquinas's theory of natural law is false because it is incompatible with the occurrence of evolution by variation and natural selection. The problematic elements include: 1) the fundamental precept that good should be done and pursued, and evil avoided; 2) the claim that every organism aims at the good and that it is wrong to frustrate nature; 3) the Aristotelian preconception that everything has a single preeminent end; 4) the putative natural inclinations attributed to human beings; 5) the assumption that species essentialism is true; and 6) the notion that God's intentions are discernible in the natural world . . . Problems are so extensive that Aquinas's theory is beyond rescue . . . Aquinas's theory should have been eliminated long ago. It is scandalous that his views, and derivatives of them,

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and Natural Law," http://prof.mt.tama.hosei.ac.jp/~hhirano/academia/leibniz.htm (accessed April 10, 2004).

> should be part of the contemporary resurgence of natural law theory . . . [34]

Zamulinski's argument is as straightforward as follows: For Aquinas, "natural" means "essential," but Aquinas's theory about human essence is based on intuitionism; there is no proof that essence and *telos* ever exist. In a world in which evolution by variation and natural selection explains biological phenomena, none of the above six Thomistic notions makes sense. Although I admit that Catholic classical natural law theory may not be fully compatible with evolutionary biology, I would not throw away the entire Aquinas's theory as Zamulinski suggests. In the following I will analyze to what extent the two theories are compatible and incompatible.

Although Koterski does not believe in the evolutionary hypothesis, he attempts to demonstrate that classical natural law theory is still valid under the assumption that evolution is true because evolution could not negate the notions of distinct kind and natural end with respect to human beings. I have already discussed the issue of distinct kinds. Now, let's turn our attention to "natural kind," which seems to assume some form of teleology. Koterski correctly points out that biological determinism is not always consistent with a doctrine of moral choices. Take sex as an example. According to Christian ethics and theistic teleology, a man and a woman are destined to form a divine union. But in the perspective of evolutionary psychology, men are pre-programmed to have sexual intercourse with as many women as possible in order to maximize the probability of

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34 Brian Zamulinski, "Aquinas's Theory of Natural Law in the Light of Evolution," *Philo* 4 (2001): 21–36.

procreation.[35] In addition, in many cultures rape is considered both immoral and illegal, but certain evolutionary psychologists argue that rape may have been favored by natural selection because it furthers male reproduction. In opposition to learning theory, which proposes that rape is a kind of unnatural and learned behavior through socialization, evolutionary psychology asserts that rape is natural and genetically driven.[36]

The preceding examples illustrate that the issue of compatibility between evolutionary studies and classical natural law theory is strongly related to the tension between untutored-human-nature-as-we-find-it and human-nature-as-it-could-be-if-it-realized-its-telos. This tension had been insightfully discussed by MacIntyre two decades ago. According to MacIntyre, the classical Aristotlian scheme contains the concepts of human-nature-as-it-is, human nature in terms of teleology, and the way to make the transition from the former to the latter. Unfortunately, Enlightenment philosophers tried to re-define human nature in an empiricist perspective and this project was doomed to fail.[37]

It seems that history repeats itself. As illustrated earlier, contemporary biological sciences do not support the

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35 R. Wright, *The Moral Animal: The New Science of Evolutionary Psychology* (New York: Pantheon, 1994), 55–107.

36 R. Thornhill and C. Palmer, *A Natural History of Rape: Biological Bases of Sexual Coercion* (Cambridge, MA: MIT Press, 2000), 123–52. It is important to point out that these authors do not justify rape by saying that it is natural. In contrast, they attempt to develop an evolutionarily informed educational program that aims at helping young men to restrain their sexual desire.

37 Alasdair MacIntyre, *After Virtue: A Study in Moral Theory* (Notre Dame, IN: Univ. of Notre Dame Press, 1984).

conception of a distinct human kind on which a natural law theory could plausibly be based. Instead, it is portrayed that human beings are like animals, whose behaviors are influenced or even determined by biological drives. These scientific findings at most can only deal with the empirical human-nature-as-we-find-it, but it should not serve as a source of categorical normativity or obligation. Debating whether there is any human-nature-as-it-could-be-if-it realized-its-telos, or whether there should be a metaphysical foundation or even a theistic framework for this type of human nature would not be fruitful. Scholars who subscribe to the evolutionary hypothesis, such as Zamulinski, would overthrow the entire Theistic-oriented natural law theory.

First, one of the central questions of natural law theory is: How can we *recognize* human-nature-as-it-could-be-if-it-realized-its-telos? To Aquinas the primary source of natural law is active and practical reasoning rather than passive obedience to Divine command. [38] No matter how a theistic moral framework is constructed, it still requires some employment of reasoning, such as interpreting the Scripture, evaluating the pros and cons of an issue . . . etc. It is hard to imagine that a sensible theologian, who wants to develop a normative natural law theory, would sit inside a convent, pray all the time, and wait for some sort of direct Divine revelation. Interestingly enough, curiosity and intellectual inquiry is part of our psychological inclination. If reasoning is vital to classical natural law theory, would it be helpful to understand how human reasoning works in light

38 D. J. M Bradley, *Aquinas on the Twofold Human Good: Reason and Human Happiness in Aquinas's Moral Science* (Washington, D.C.: Catholic Univ. of America Press, 1997); A. J. Lisska, *Aquinas's Theory of Natural Law: An Analytic Reconstruction* (Oxford: Clarendon, 1996).

of contemporary sciences? According to Aquinas, although practical reasoning can err in its judgments about particular goods or be disrupted by passion in reference to particular choices, it is still infallibly correct in its universal judgments. In other words, the conclusions based upon reasoning may not be universal, but reasoning may be universal. James Walker boldly claims that evolutionary psychology has discovered that human behaviors are driven by a set of universal reasoning circuits. No matter how our values vary from time to time and from place to place, there are some invariant reasoning structures behind the scene. Further, Walker asserts that research in evolutionary psychology can cut straight to the heart of human nature.[39] Although I have reservations of his claim that evolutionary psychology could discover the universal human nature in terms of universal reasoning mechanism, consulting evolutionary psychology is certainly still beneficial to classical natural law theorists, because we need to reason about reasoning in order to know why and how we come to a conclusion.

Second, a comprehensive natural law theory could result from an interaction between understanding untutored-human-nature-as-we-find-it and understanding human-nature-as-it-could-be-if-it-realized-its-telos. Interestingly enough, many cultures have the idea of a dual-nature of human kind. For example, Jewish tradition speaks of two inclinations, called the *yetzer ha-ra* and the *yetzer ha-tov*, which mean the "bad inclination" and the "good inclination," respectively.[40] Chinese philosophers from the Pre-Chin period also realize that there are both "beast-like

39 Walker, *Becoming Evil*, 145.

40 Ibid., 138.

inclination" and "human-like inclination" within the inner structure of human psyche.[41] It is necessary to emphasize that bad or beast-like inclination cannot straightly be equate with untutored-human-nature-as-we-find-it, and good or human-like inclination is not simply synonymous with human-nature-as-it-could-be-if-it-realized-its-telos. Actually, our psychological and biological inclinations could bring about both good and bad results, depending upon the situation. Unfortunately, throughout history many religions, including some Christian sects and most Buddhist branches, tend to suppress the "bad" inclination by practicing monasticism or some form of self-denial. While making inference from "what is" to "what ought to be" is considered a naturalistic fallacy, totally disconnecting between "what is" and "what ought to be," or denying the value of the former by blindly imposing "what ought to be" against our psychological and biological nature-as-we-find-it is also a serious mistake. This attitude is based upon an assumption that no implications to natural law can be drawn from human-nature-as-we-find-it. And I term it the "normative fallacy."

Moreover, practical reasoning, as its name implies, has a practical dimension. Thus, a reasonable natural law theory should result from an interactive contemplation between "what is" and "what ought to be." Consider the issue of birth control as an example. Zamulinski criticizes the theory of eminent end by citing the Catholic teaching of birth control as a counter example:

> It (the Catholic approach) also presupposes that sexual intercourse should involve the possibility of fertilization.

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41 Wei, *History of Chinese Thought*, 319–22.

> Otherwise, it would not be related to its purpose "in a fitting manner." If it were not related to its purpose "in a fitting manner," it would be a case of frustrating nature. Now, if the preeminent end of sexual intercourse were procreation, and it were wrong to frustrate nature, it would follow that sexual intercourse should be open to the possibility of conception. It would follow, for instance, that artificial birth control is wrong. But the preconceptions (of eminent end) are dubious.[42]

It is not the intention of this article to argue for or against artificial contraception. Nonetheless, this example does not negate the notion of eminent end in classical natural law theory. Protestant Christians, those who are not opposed to artificial birth control, could employ practical reasoning to argue that the inclination to enjoying sexual pleasure, as being the human nature discovered by biologists and psychologists, is compatible with our goal of pursuing a psychologically healthy life. And therefore, for Protestants, having sex with artificial contraception is not sinful.

In summary, even though contemporary sciences tend not to treat human beings as a distinct kind and propose a kind of empirical-based human nature that is based on psychological and biological inclinations, classical natural law theorists can still consult these theories in order to obtain a deeper understanding of universal reasoning mechanism, and also to balance between "what is" and "what ought to be." It is true that there is always a tension between human-nature-as-we-find-it and human-nature-as-it-could-be-if-it-realized-its-telos. However, the question at issue is not whether we should accept the empirical view or the

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42 Zamulinski, "Natural Law," 29.

normative view. Paradoxically, the latter would not be meaningful without understanding of the former. According to some philosophers of ethics, an act is qualified as a moral act if and only if the agent can choose between options. The more we know about "what is," the more we learn about "what ought to be."

VI. Conclusion

In summary, Koterski's defense of classical natural law theory under evolutionary biology does not seem to be successful. First, although in the past linguistic ability and rationality were considered unique human characteristics, recent scholarship in biology and psychology suggests that humans may not be vastly different from other creatures in kind with regard to communication and cognition. More importantly, although the hard problem and the explanatory gap in philosophy of mind remain unresolved, it is at least generally agreed that the brain structure is a necessary condition for the mental process. To appeal to the lack of evidence for the biological structure's being a sufficient condition is to appeal to ignorance, and thus it cannot be regarded as a strong argument for difference in kind. Second, the notion "difference in kind" could lead to an inflation of a sense of superiority and subsequently open the door to atrocity. It is not surprising to see that many totalitarian regimes or oppressors have no difficulty in granting natural rights or civil rights to their own people but depriving other "kinds" of the same rights. Third, if a theistic framework is replaced with a materialistic cosmology, it is very difficult to see how the concepts of "human nature" and "natural end" can make sense at all. If nature is a product of random variations rather than intelligent design, then the rationality of nature is no longer a sensible hypothesis. Hence, the symmetry between rationality of nature and rationality of

human beings, as suggested by classical natural law theory, is inevitably broken.

It is not surprising that Father Koterski is inclined to support the notion of human beings as constituting a distinct kind because the doctrine of *Imago Dei* plays a central role in Catholic anthropology. In the Book of Genesis, there are several passages proclaiming that humans are made in the image of God, and this special status authorizes humans to control other species:

> Then God said, "Let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the earth, and over every creeping thing that creeps upon the earth." So God created man in his own image, in the image of God he created him, male and female he created them (Gen 1:26–27).
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> And the fear of you and the dread of you shall be on every beast of the earth, on every bird of the air, on all that move on the earth, and on all fish of the sea. They are given into your hand. Every moving thing that lives shall be food for you. I have given you all things, even as the green herbs. . . . Whoever sheds man's blood, by man his blood shall be shed; For in the image of God He made man (Gen 9:1–7).

These verses from the Scripture convey two messages. First, humans are made in the image of God. Second, dominion over other species is granted to humans. At first glance, this Scripture is fully aligned with the notion of humans as constituting a distinct kind in Koterski's theory. However, Catholic theologian Kraynak points out that the doctrine of *Imago Dei* is complicated by the fact that Exodus, Leviticus, and Hebrew prophets avoided direct references to the *Imago Dei* of Genesis; rather, they clearly compared humans with God in the attribute of holiness. To be holy is literally to

separate oneself from the profane world. For Kraynak the divine image of humans defined by Genesis has been superseded but not abolished by the imitation of God's holiness.[43] In other words, "distinct kind" and "dominion of other kinds" are not the full story of *Imago Dei*.

Indeed, the doctrine of devoting one's effort to become holy and Koterski's emphasis on making deliberate moral choices are fully aligned. Koterski asserts that there is no biological determination and that human beings always act morally; acting morally always requires making a choice rather than blindly following the biological disposition. In this sense, natural law theory is not a description of how human beings necessarily act, but rather some prescriptions for how we ought to act in order to fulfill our natural ends as rational beings. The doctrine of *Imago Dei* in terms of possessing the essence of holiness directs humans to a well-defined natural end. Working towards this natural end requires making choices that sometimes may go against our biological inclination. It is obvious that the evolutionary framework negates the ideas of human essence and a natural end of human life as formed in classical natural law theory and Christian theology. To make sense out of classical natural law theory, it may be advisable to shift the focus of *Imago Dei* from the distinct kind assumption and dominion over other species to the imitation of the divine essence and the making of moral choices.

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43 Robert Kraynak, "Made in the Image of God: The Christian View of Human Dignity and Political Order," in *In Defense of Human Dignity*, ed. Robert P. Kraynak and Glenn Tinder (Notre Dame, IN: Univ. of Notre Dame Press, 2003), 84–89.