

Regis University ePublications at Regis University

All Regis University Theses

Spring 2013

The Rescue of Jones: the False Human/Animal Distinction and Worth in the Animal Kingdom

Rachael Haun
Regis University

Follow this and additional works at: <https://epublications.regis.edu/theses>



Part of the [Arts and Humanities Commons](#)

Recommended Citation

Haun, Rachael, "The Rescue of Jones: the False Human/Animal Distinction and Worth in the Animal Kingdom" (2013). *All Regis University Theses*. 619.

<https://epublications.regis.edu/theses/619>

This Thesis - Open Access is brought to you for free and open access by ePublications at Regis University. It has been accepted for inclusion in All Regis University Theses by an authorized administrator of ePublications at Regis University. For more information, please contact epublications@regis.edu.

**Regis University
Regis College
Honors Theses**

Disclaimer

Use of the materials available in the Regis University Thesis Collection ("Collection") is limited and restricted to those users who agree to comply with the following terms of use. Regis University reserves the right to deny access to the Collection to any person who violates these terms of use or who seeks to or does alter, avoid or supersede the functional conditions, restrictions and limitations of the Collection.

The site may be used only for lawful purposes. The user is solely responsible for knowing and adhering to any and all applicable laws, rules, and regulations relating or pertaining to use of the Collection.

All content in this Collection is owned by and subject to the exclusive control of Regis University and the authors of the materials. It is available only for research purposes and may not be used in violation of copyright laws or for unlawful purposes. The materials may not be downloaded in whole or in part without permission of the copyright holder or as otherwise authorized in the "fair use" standards of the U.S. copyright laws and regulations.

THE RESCUE OF JONES:
THE FALSE HUMAN/ANIMAL DISTINCTION AND WORTH IN THE ANIMAL
KINGDOM

A thesis submitted to
Regis College
The Honors Program
in partial fulfillment of the requirements
for Graduation with Honors
by
Rachael Haun

May 2013

TABLE OF CONTENTS

PREFACE & ACKNOWLEDGEMENTS	v
FIGURE 1, 2.	17,18
I. OPENING	1
II. A GAME OF SEMANTICS, CATEGORIES, ASSUMPTIONS & PRIDE	5
III. ANIMAL EVOLUTION, HUMAN ABILITIES	14
IV. THE MECHANICAL ANIMAL	26
V. IMAGO DEI & DUALISM V. DARWIN	42
VI. THE RESCUE OF JONES: IMPLICATIONS OF MORALITY & WORTH	50
REFERENCES	68

PREFACE AND ACKNOWLEDGEMENTS

Some of my earliest memories include my mother forcing me to watch *Alien* with her as a small child. These were not the greatest memories. More positive memories include my mom instilling me with a love for animals, and great concern for their well-being. Starting with trips to the zoo, watching nature documentaries, and caring for pets of my own, I suppose this thesis was approximately 17-18 years in the making, thanks to the influence of my mom, Marjorie Snyder. As far as the year of writing this thesis goes, I give all gratitude to my advisor, Dr. Jonathan Howe, my reader, Dr. Mark Basham, and Dr. Thomas Bowie of the Honors department.

I. OPENING

We *Homo sapiens sapiens* are a proud species, and with great reason. It seems we are blessed with a perfect anatomical combination of bipedalism, opposable thumbs, and a highly developed brain. With this combination, we have become that which we are today: the architects of advanced structures, physically and socially, capable of modifying our world and ourselves to degrees almost unthinkable. We change the climate and we can make the sterile give birth. We are capable of contemplating the bizarreness and beauty of ourselves and our creations. The list of human achievement is endless. *Homo sapiens sapiens* is a species which represents extremes in the animal kingdom, extremes of cognition, adaptability, emotional capacity, etc., to a point that is so extreme to make us feel wonderfully unique, to the point of being alone in our universe. We, particularly in the western world, with our medical facilities and empathies for the ailing or genetically unfortunate, have more or less removed ourselves from the Darwinian game which gave us rise. While other animals are still bound by stupidity and ignorance to the game of survival, humans simply watch it unfold. We like it this way, this easy, almost assured existence. The term *animal* has become an insult within our culture, one reserved for the lowest of society, those who act in an “uncivilized” manner. To think of something which came out of the evolutionary race better equipped than ourselves is unsettling.

In Daniel Quinn’s *Ishmael*, there is a hypothetical conversation with a jellyfish, taking place a few hundred million years ago. The jellyfish tells the story of its existence

on earth: “For many millions of centuries the life of this world was merely microorganisms floating helplessly in a chemical broth. But little by little, more complex forms appeared: single cell creatures, slimes, algae, polyps, and so on...but finally, *jellyfish appeared!*” (55-56). This proud jellyfish very much represents human attitudes today; here and now we are apex, we are the end result of hundreds of millions of years of evolution, and it seems we are not what we were borne of, we are no longer mere *animals*. We have distinguished ourselves from them in what is unsurprisingly referred to as the human/animal distinction. Again, to think that we are not on top of our natural world, that we may not represent the peak of life forms, is unsettling. When it is a jellyfish fancying itself as the best thing to ever exist, it is a bit comical. However, when people are faced with a superior survivor, a “perfect organism,” a more cunning being, it is scary – particularly when its survival depends on the demise of humans. The 1979 film *Alien* presented such a situation.

Genre-wise, *Alien* falls under the categories of science fiction and horror, though perhaps the best way to describe it is as a claustrophobic, “nihilistic, Darwinian nightmare” (DeMoss, 2003). Several decades after its debut, the film is considered a classic, but a quick synopsis is still in order. The film opens with a hulking ship floating through space – the *Nostromo*, with its working-class crew: Kane, Brett, Dallas, Parker, Lambert, Ash, Ripley (our protagonist and human of interest) and Jones, the cat, bringing mineral ore back to Earth. When the *Nostromo* picks up what seems to be an S.O.S. signal from a nearby planet, the crew must investigate, albeit begrudgingly. Upon investigation, it becomes clear the signal is a warning rather; before the crew leaves,

Kane falls victim of an alien organism, hatched from a leathery egg, which sticks to his face, incapacitating him while keeping him alive. Against protocol, Kane is brought onto the ship. This facehugger proves impossible to remove; once it dies and falls off he seems back to normal – until a rather famous meal scene in which an alien larva bursts forth from his chest, the facehugger having implanted its embryo within him. From here evolves a sinister game of cat-and-mouse, the larva growing into the xenomorph of H.R. Giger's design within mere hours, and the crew being picked off rapidly by the alien which utilizes the ship's ducting to its own advantage. It is a silent killer, it is efficient, and nearly impossible to locate until it's too late. During this a surprise - science officer Ash is a robot, ensuring that the true task of the *Nostromo* is completed: the harnessing of an alien life form to be studied back on Earth. The crew is entirely expendable. And so, toward the film's climax we are left with three beings: Ripley our Heroine, Jones the cat, and the xenomorph. Through a little slyness and a lot of luck, Ripley saves herself and Jones from the alien (until the sequel, but that's a whole other story). End Synopsis; important scenes and characters will be expanded upon throughout as needed.

Alien, while a work of fiction, provides an interesting perspective into the human/animal distinction. Ripley is in a situation which shows that she indeed is just another animal in the competition to survive. However, her humanity is defined by what she is not; between the cold, menacing xenomorph and the ever-adorable Jones, her uniqueness as an organism is very much apparent. The film reflects many of the fears and assumptions which surround the human/animal distinction. The human/animal distinction is artificial, and while in ancient times it was a reasonable thought, today, in spite of

knowledge of our evolutionary past and our connections with animals still-extant, it persists. Why? and why should it not? To a great degree, the question boils down to: what does it mean if we, as humans, admit our lives have no more inherent worth than a cat, than a jellyfish, than the animal trying to kill us?

While the classification of humans as animal is a scientifically-based fact, the questions as posed are deeply wrapped in both passive and active philosophies, theology, science and semantics – with a little pop-culture mixed in, for this piece. Yes, we humans are animals. Yes, we have no inherent individual worth beyond that of a generic animal's despite our rather remarkable capacities for creation, destruction, and analysis. However, all animals being equal, it is not our inherent worth (or lack thereof) that is important. Worth exists on a spectrum on animal abilities, and perhaps most importantly, it is the worth that we assign to a thing, that we are capable of assigning to things, that matters. Remember: at the end of *Alien*, Ripley had not risked her life for her fellow crewmates, her fellow humans, but a cat, *just* a cat. And perhaps, this risk taken, this obligation borne of worth, was the most revealingly human part of the film.

II. A GAME OF SEMANTICS. CATEGORIES. ASSUMPTIONS AND PRIDE

The human/animal distinction in everyday conversation is greatly a matter of ease. We often refer to humans as an entire group, and non-human animals as an entire group. “Non-human animals” is simply too many syllables. (Herein I will often use “animals” when “non-human animals” is implied, the context should make it clear, and “we” refers to humankind.) This makes sense and is not inherently bad. We do not represent generic animals, but ones with rather amazing abilities, and as members of a species it makes sense to refer to ourselves in a collective manner given the similar tasks, pains, and pleasures we all face day-to-day. An instinct to categorize exists within humans, and one of the first things we distinguish is ourselves from the rest of the world, be it living or inanimate; further, humans perceive the distinction between living things to be highly “natural” and objective (Rhodes & Gelman, 2009). Yet, this casual, instinctive distinction both reflects and perhaps even exacerbates the more deeply made distinction between the two. In our culture, the word “animal” no longer represents humans in general. Rather it has become a connotatively-loaded term, when applied to humans, as is factually accurate.

“Animal” has become an insult. To call another human an animal is to accuse them of being malicious, slovenly, or out of control – insults to any human who isn’t a frat boy at least. Murderers, child rapists – they are called animals, or they are called un-human, implying the same. While human attitudes towards non-human animals can be extremely positive (animals as friends, comfort, important parts of our world and a full

life, especially for companion species) they can also be extremely negative; we associate animals with the more undesirable aspects of human nature, the “creaturely” side of humanity (Beatson, Loughnan & Halloran, 2009). We may love little Jones the cat, but when accused of being an animal we think of the xenomorph. We are not used to being called animals, though we are comfortable with other taxonomic labels. *Eukaryote*, *vertebrate*, *mammal* – these terms are of little controversy, and little connotation, unlike *animal*.

To make it entirely explicit, yes, humans are animals, and though as demonstrated above the word animal is connotatively loaded, it’s simply a taxonomic fact, taxonomy being the classification of organisms. I feel it proper to make a quick investigation of the terms “animal” and “human” before continuing. Scientifically, an animal is defined as a living organism belonging to Kingdom Animalia, which are set apart from other organisms (plants, fungi, bacteria, archaea, etc.) by six characteristics: 1. Being eukaryotic (that is, having a membrane-bound nucleus) and multicellular, 2. Being heterotrophs (relying on other organisms for energy) with internal digestive tracts, 3. Lacking rigid cell walls, 4. Being able to move voluntarily, during at least one part of the life cycle, 5. Having embryos which pass through a blastula stage, in which the embryo is a hollow multicellular sphere, and 6. Possessing sensory organs with which to sense and react to stimuli (“Animal,” 2008). The scientific definition for human is short and sweet: a bipedal primate belonging to the genus *Homo*, especially *Homo sapiens* (“Human,” 2010). For here I’ll note: taxonomy is a field in which there is, and will be, much debate, from where things are classified to what a level of classification signifies, on levels from

domain to species. However, I'll be so bold as to say the standing of human as animal is not likely to be a center of debate for biologists, though how far back in our evolutionary history the "human" may be. (Currently, there are anatomically modern humans, i.e. ourselves, and archaic humans, our recent ancestors, accepted among biological anthropologists. I refer you to chapter 3.)

Again, colloquial origins and use of "animal" and "human" don't quite fit and refer to those things which the scientific definitions do. The Latin word *animalis* from which animal is derived meant "having breath," and in common use it is a much narrower term; when someone says animal "animal" they are likely referring to a non-human vertebrate ("animal"). In contrast to what an animal may be, from a sponge to a human, it's an inaccurate usage indeed. *Homo sapiens (sapiens)* is just one of many names we have given ourselves as a species, and it is a Latin term meaning "wise" or "knowing man." Though we accept being placed taxonomically among the rest of the animal kingdom, the names says all for where we truly see ourselves in terms of other life.

Addressing the film, the title creature of *Alien* has no official name (though in the sequel a member of its species is referred to as a "xenomorph," Greek for "strange shape," that name being used herein). This makes sense, as it has no official history; it has no evolutionary history on earth, and thus technically, it cannot be an animal, though for the purpose of this piece it fits the role. The xenomorph definitely seems to be an extraterrestrial equivalent of an animal; it's certainly multicellular, the plot of the movie is largely based on its heterotrophic needs, it's motile, is able to sense and react to stimuli, and though we cannot know for certain the specifics of its embryonic

development and cellular structures, it is functionally an animal – for the sake of ease, I'll just say it is an animal, given the creators' intentions for it to be just that. Jones is another creature that sort of inhabits a grey area in the animal world. He is a cat, a *domestic cat*, undoubtedly an animal but one which has been in part shaped by artificial selection, by human hands. I feel a need to acknowledge the fact before delving in further, but from feral colonies to adoptive nursing of close wild relatives, we may assume humans didn't mess up a cat's ability to survive in a non-human controlled environment entirely. Ellen Ripley and the *Homo sapiens* crew of the *Nostromo* don't really fall into a grey area in the world of animals, though they might fancy they do at the beginning of their tale, before they are again thrust into the Darwinian game, and find themselves to be poorer players than imagined.

Much of the debate around the human/animal distinction may be boiled down to language and the way in which it is used and changed. Usage, over time, ultimately determines what we find in the dictionary. The way in which language evolves and meanings behind words, this is unfamiliar territory for me, and thus I fear I am unable to give the semantics of the human/animal distinction its due analysis. However, I reject the notion that the human/animal distinction is purely a linguistic issue. While my analysis focuses on the western English-speaking world, the sentiment of the distinction certainly exists in other cultures, who describe the distinction with other words, with other meanings, which may or may not have direct translations to what we speak of here. (The sentiment also may not exist strongly in some other cultures, one of the reasons I focus on the westernized world. If the reader is wondering, the other main reason is, it is the

world I live in, will live in, and am interested in as it affects me.) Also, there is a certain permanence the distinction has shown, at least for the last several millennia – for example the three texts of western religious importance, the Koran, Christian Bible, and Torah, are all proponents of the human/animal distinction, being written and translated through various times, languages, schools of thought, etc. While language changes, while the scientific definition of “animal” may even change given new knowledge, the sense that humans represent this *otherness* will likely remain. The human/animal distinction exists beyond the words which illuminate it, and this existence has application well beyond semantic games.

Through the instinctive, if not inaccurate categories of the human/animal distinction, humans have created a sort of “us and them” between humans and the rest of the animal kingdom. By doing so, humans perceive themselves to be removed from the spectrum of traits found in the animal kingdom, and to make vast generalizations about the two groups. Animals are part of nature, humans are above nature. Animals are subject to natural selection, while humans represent the most evolved, able, and sophisticated of Earth’s life. We won the evolutionary race. We eat and are not eaten, we make our weak strong again, we manipulate evolution to our own end, creating super-crops and Shar Peis. There is an underlying assumption here, to be further investigated at a later point, that humans are uniformly superior, and that if another human is mentally and/or physically inferior, he or she is still protected under some sort of human dignity, assigned to any one member of the species simply because they are human. We refuse to let human ability or worth be measured on a non-human animal scale, we refuse to let

ourselves be compared to other animals; a mentally retarded adult is described as having the intelligence of a toddler, not a chimpanzee. Once more, this is not bad. We understand a toddler's intelligence better than a chimpanzee's, and there's a matter of sensitivity called for. Also, generalization are not inherently bad, as they are quite useful – I'm making a huge generalization in the writing of this piece, that all Westerners see themselves and other humans in the light presented. However, this does not make the human/animal distinction less false, nor assumptions of human dignity above that of other animals'. I would argue yes, we do represent the peak of life on earth at the moment, but it let's not be proud jellyfish about it.

Note - before leaving the subject of language and semantics, I should give operational definitions to what is meant when “distinction,” “inherent,” “obligation,” and “worth/value” are used herein. To say the human/animal distinction is false is not to say humans are not distinct from other animals. As stated, we represent a very distinct sort of extreme on the spectrum of animal ability. However, “animal” is a category that includes humans; the human/animal distinction is that claim that we are somehow, at some level, *not* animals or at least different from them as a whole, as opposed to the claim we are a particular sort of animal. When using inherent, I mean “in and of itself,” usually in the context of human worth and/or value. This is addressing the concept touched on in the opening and above, that humans are granted a degree of worth or value based on what they are, species-wise. For these purposes, worth and value mean something like *dignity* – the right to a certain (high) quality of life, and certain treatment from others. This ties into the term “obligation,” to be examined in later sections. Here, an obligation is the

sense that dignity and caring should be extended to a certain being. While these definitions are nothing new, I hope this provides some clarity.

Continuing - the Nostromo represents human achievement in *Alien*. While it's safe to assume it isn't the most ornate vessel floating the galaxies in this futurescape, it's a space-faring craft, embodying human intelligence, ambition, understanding, and curiosity. While other animals are subject to the resources of Earth, humans are now free to roam the stars for mineral ore. To create such a craft requires advanced technology, as well as advanced social skills, as its completion would require the cooperation of perhaps hundreds, from engineers to manual laborers at some point in time. That same level of technology and cooperation is needed to keep it functional, to repair it, and to make it useful. Though the intended usage of the Nostromo is very blue-collar and practical, it represents a certain drive that seems uniquely human. To make a cliché of it, we humans reach for the stars, quite literally in this case. The use may be practical, but at a level the Nostromo is borne of a collective desire for humans to increase their societies, knowledge, creations. If the resources of the planet are no longer sufficient, we do not cull human populations, acting practically as an animal would do. We do not stop building. We instead expand our resources because we are the beings which are capable of doing so. I make many assumptions about Earth in *Alien*, but they make sense giving the circumstances presented. If the Nostromo's stated purpose is practical, the "secret" purpose is driven by curiosity. What else is out there? We'll find out because we can. With human achievement comes human pride.

Another cliché states that pride comes before the fall, and in the case of the *Nostromo* and its ill-fated crew, this is very much the case. In *Alien* and the world of today, the more we increase our knowledge of the universe, the smaller the human role seems in it. For some, this knowledge is fascinating, almost transcendent. For the crew, it is a terrible realization. Where on Earth, at the given point in time, humankind represents an extreme, an apex, in the larger scope of things we are still very much the hunted, the insignificant. We are Darwinian players in a terrible game, where our curiosity and intelligence plays a lesser role in survival ability. The corridors of the *Nostromo* become the perfect hunting grounds for the xenomorph, the better competitor – it kills many humans before it is killed. It uses the details of the ship, the ducts and the gaps, to an advantage. Ash calls the xenomorph a “perfect organism.” It is not perfect, obviously, but the greater point is, neither are we humans. Had she sat around on Earth like a good animal, Ripley would not be so traumatized, so humbled.

There’s a good deal of sarcasm in that last statement, and I hope that’s obvious. Of course humans should not hinder technological and intellectual development in the name of preserving pride and avoiding alien attack, or hinder development in the name of being more like the other animals. But our intellectual abilities plus our thumbs and bipedalism have certainly gotten us in sticky situations which other animals do not encounter, situations which may threaten our survival – if not by alien encounters, then by ourselves. Perhaps if our proud jellyfish had a nervous system capable of forming an agenda and some thumbs, it would have created nuclear weapons too. We *Homo sapiens*, we wise men, are so smart we are capable of doing something very stupid in terms of our

survival en masse. We *Homo sapiens* are proud of our compassions, our ethics based on the inherent worth as humans, and thus we deny the natural logic of carrying capacity, feeding starving human populations and treating density-dependent diseases to the point that we are simply building up the inevitable, making the struggle to survive that much more dismal for future generations than if there had been no intervention.

Herein, I challenge these assumptions on which humankind often depends on – the assumption that we humans are unique and apex, inherently of greater worth than other species, etc. Do humans represent an apex being? I would say yes, for this place at this time. But if we were to take a lesson from the *Nostromo*, we shouldn't get too cocky about it.

III. ANIMAL EVOLUTION. HUMAN ABILITIES

To be an animal is to have a certain evolutionary history. If humans are animals, that means human traits came about through the same general process which bore any animal species, specifics differing of course. This is easily understood for overtly anatomical and physiological traits, but the traits we consider most uniquely “human” – a large intellectual, and even more so a large emotional capacity – seem almost separate. The fact is, these traits, like bipedalism and opposable thumbs, are based in evolutionary history. Thus, to understand why the human/animal distinction is artificial, the evolution of the human animal, and its extreme traits, must also be understood. The mechanisms of evolution are simple in their purest form; I’ll be brief with them, as for many readers this is review. However, human evolution is the highly contextual action of these mechanisms. To do it true justice would take a novel or more, and I will limit developments and examples to those most illuminating to the topic.

To begin, a few time references. The Earth originated about 4.6 billion years ago. The first organisms (unicellular bacteria) originated 3.8 billion years ago, and multicellular organisms 2.1 billion years ago. Eukaryotes, the domain to which animals belong, evolved approximately 1.5 billion years ago, and *Homo sapiens sapiens* (anatomically modern humans) showed up only in the last 0.2 million years. That means humans are, as of now, a blip on geological time, having only existed for 0.004% of time since Earth’s beginning (“History of life,” 2012). However, human evolution begins all

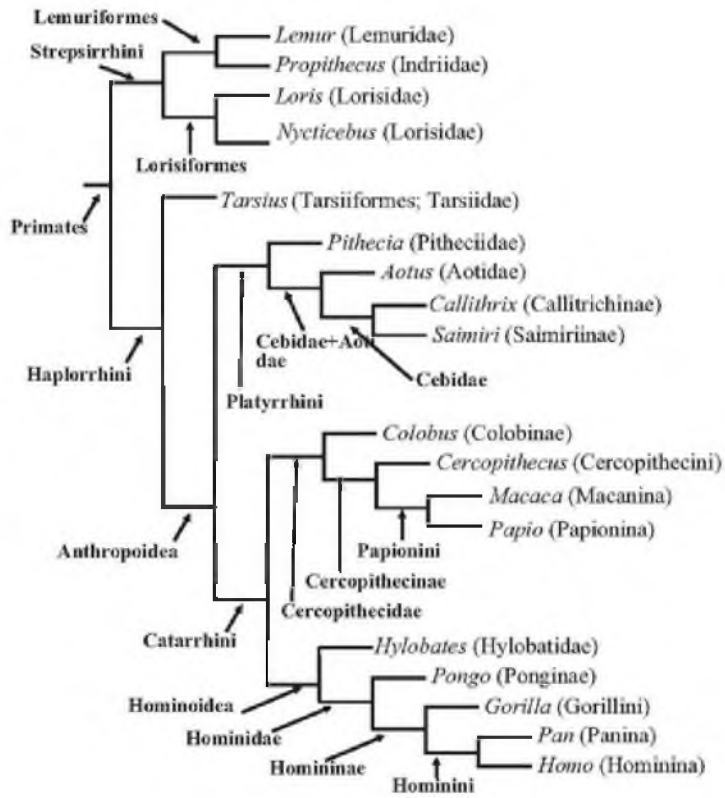
those billions of years ago, with the appearance of those first, primitive life forms, just like all other organisms on Earth, past and present.

The beginnings of life came before 3.8 billion years ago; before cells could exist, there had to be self replication monomers, then polymers. Abiogenesis – life from inorganic sources, or the origin(s) of these molecule is still a debated topic, though derivatives of the Oparin-Haldane theory are accepted at this time. This states that those first monomers were formed from chemical interactions of the primordial atmosphere and oceans, a theory made believable in 1828, when Wöhler’s synthesis of urea showed that organic compounds may be synthesized from inorganic substances. While the very beginnings of life are still being investigated, evolutionary theory has changed remarkably little since 1859, when Darwin’s *On the Origin of Species* was published – quite a feat in the scientific world. Granted, Darwin and his contemporaries did not have the language of genetics, alleles, etc. to describe evolution on a molecular basis; the later discovery of DNA as the basis of heredity strengthened evolutionary theory (Berlinski, 2006). This discussion will focus mainly on phenotypes, the physical manifestation of genotype, for simplicity, keeping in mind that DNA/RNA is the substance which links all living things to a common ancestor.

As described by Darwin in *On the Origin of Species* (1859), evolution is driven by reproductive success, and reproductive success is determined by fitness, the catalyst for all being the “struggle for existence” – resources are scarce, and fitness is determined by an organism’s ability to obtain and use resources in a given environment. The more fit an organism, the more it is able to reproduce, and the more its heritable traits (“genes” or

“alleles” in the modern vernacular) – especially those which make the organism successful – are passed to later generations. This phenomenon is referred to as natural selection, and is the first major concept in evolutionary theory. (Artificial selection occurs when we humans decide what is most desirable in an organism, whether or not that trait would be compatible with survival in a non-human controlled environment. These desirable traits are selectively bred, in everything from orchids to pigeons to domestic cats – this is why Jones represents a sort of gray area in the realm of evolution.) The second is speciation, the formation of new species. Speciation occurs when populations of a single species become isolated. This is often meant in a literal geographic sense; however it occurs, the isolated groups of a species have different proportions of alleles. As breeding continues within groups, some alleles become more prevalent than others in the parent species. Genotypes, thus phenotypes change, and over time a new species emerges. A quick note: not all traits have a functional origin; that is, some traits exist for reasons other than direct contributions to the species’ fitness. Genetic drift events, where simple chance plays a role in survival (ex. a hiker happens to trample much more pink flowers than blue – blue flowers survive by chance) and linked genes (one gene tends to be passed on with another consistently) are likely the origins of several traits in many species. Also, again note that these concepts are simplified herein, but still it remains: these are the basic processes of evolution, and in a way they are conceptually simple. It is when the concepts are applied in highly contextual environments with particular species that seemingly miraculous, or at least improbable things happen – like the emergence of our “most human” traits.

Figure 1



Above (Fig. 1) is a phylogenetic tree, showing the evolutionary relationships between modern primates, from the primate ancestral species (Diogo & Wood, 2011). Note that while evolution is a fact, specific taxonomies and phylogenies are still hotly debated in the scientific world. Older phylogenies are based on morphology (i.e. visible physical characteristics) alone, while nowadays descent and relation are largely based on genetic information. Still, though some details of human evolution are being debated and investigated (especially in regard to biogeography and the potential mixing of hominid

species), the order of hominid descent as presented herein is generally agreed upon, though many species are not mentioned or discussed. The relationship of *Homo sapiens* to other hominids is summarized below (Fig. 2), with biogeography noted: Green denotes the island Flores (east of Java), pink eastern Asia, pale blue western Asia, dark blue Europe, and red denotes Africa (Finlayson, 2005).

Figure 2



Roughly 4-7 million years ago (mya), likely in east Africa, the human/chimpanzee lines diverged. The earliest known ancestor from this split is

Ardipithecus ramidus, bipedal but still quite chimpanzee-like. By 4mya, bipedalism was well-developed in species such as *Australopithecus anamensis* and *A. afarensis*. 2.5mya, the tool-making *Australopithecus garhi* emerged; though this species is the first known toolmaker, it is likely not a direct human ancestor. However, tool making became more prevalent in following millennia, especially with the arrival of the genus *Homo*. *Homo erectus* is considered the first hominid to travel out of Africa, expanding into Europe and Asia. (*H. erectus* was a remarkably long-lived hominid, only having gone extinct approximately 50,000 years ago.) 800,000-200,000 years ago, rapid brain expansion occurred in hominids. At the end of this expansion the classic caveman, *Homo neanderthalensis*, lived in Europe, and is considered to be the closest relative to humankind, *Homo sapiens*. *Homo sapiens* also emerged from Africa into Asia and Europe. This species is split into two groups: archaic and anatomically modern. We represent the latter (*H. sapiens sapiens*), a species approximately 200,000 years old (“Tracing fossil finds,” 2009) (“Dating”). With the extinction of the Neanderthals, we are now the only extant hominids.

Though evolution is not inherently hierarchical, there is clearly a sort of “forward” progression seen in the evolution of hominids, from *Ardipithecus ramidus* to *Homo sapiens sapiens*. This may be attributed to the “Panda Principle” – the concept that every extant character of an organism had an evolutionary precursor; current traits are built off of previous traits, structures etc. (Gould, 1980). Because modern humans have an evolutionary past, the traits and characters humans now exhibit existed previously, in some form or another. Humans did not spontaneously develop massive brains with

massive intellectual and emotional capacities. These capacities came about as most things do, in the Struggle for Existence, and they emerged well before modern humankind did. The expansion of the hominid brain was likely due to social, ecological and climatic pressures faced by our ancestors, particularly between 800,000-200,000 years ago, though expansion can be seen from 1.9 million to 10,000 years ago, starting with the species *Homo habilis* (Bailey & Geary, 2009). With similar brains come similar capacities, abilities, and behaviors. It would be foolish to think we are the first species with not only remarkable intelligence, but language, culture, ritual, morality, and other “human” things. These things are not beyond the scope of animal evolution.

Again, humans tend to view their less savory, “creaturely” sides as animalistic. It’s not surprising, given the cold nature of Darwinian evolution. We can easily understand how the Struggle leads to viciousness as a biological virtue, but those most human traits, those which seem to defy natural law, really don’t defy it at all. It takes a more nuanced and contextual view of evolution, but altruism, empathy, selflessness, are too in the scope of evolution’s capacities – though it seems such characters might eliminate oneself from the gene pool. It’s an odd thing to consider, but “humanity” isn’t limited to humanity – though admittedly we *Homo sapiens sapiens* are the best at being “human.” But I digress.

At the core of these “most human” traits is a large, magnificent brain. Brain size was one of the large factors in distinguishing genus *Australopithecus* from genus *Homo* (Anton & Snodgrass, 2012). Though to what degree anatomical changes fueled behavior, and what degree behavior fueled anatomical change may be in the realm of debate still, a

larger brain was clearly accompanied with more sophisticated behaviors. Before anatomically modern humans, earlier hominids were building more complex societies. Cooperation was used in hunting and foraging for greater efficiency, parenting practices involved multiple adults, beyond the biological parents. While the exact species in which these and other such traits arose is uncertain, it *is* certain that these traits, and practices, and many more – from language and tools usage to reasoning and abstract thinking skills, religion and even morality - existed well before the dawn of modern *Homo sapiens* (Moritz, 2012).

The anthropological evidence for these things are well based, in the fossil record and in the various fragments of everyday life which survived all these millennia. The question is now: how could evolution select for such bizarre, wonderful things? Cooperation and multi-parenting is easy enough to understand – ants and bees do that, after all. We can easily see how an extreme intelligence would aid in survival – it’s served us quite well, as we see today. What of the less creaturely traits? Altruism, empathy, a sense of morality and obligation?

Darwin wrote, in his *The Descent of Man, and Selection in Relation to Sex*, “the development of moral qualities is a more interesting and difficult problem. Their foundation lies in social instincts... Animals endowed with social instincts take pleasure in each other’s company, warn each other of danger, defend and aid each other in many ways” (1871). This concept has been elaborated on and nuanced nowadays. Evolutionary biologist Richard Dawkins also considers the evolutionary history and basis of morality in humankind. He admits, “On the face of it, the Darwinian idea that evolution is driven

by natural selection seems ill-suited to explain such goodness as we possess, or our feelings of morality, decency, empathy and pity. Natural selection can easily explain hunger, fear, and sexual lust, all of which straightforwardly to our survival or the preservation of our genes. But what about the wrenching compassion we feel when we see an orphaned child weeping, an old widow in despair from loneliness, or an animal whimpering in pain?" (2006). Again, as Darwin said, the origins are based in a social lifestyle.

Certainly, selfishness often contributes to self-preservation and thus the preservation of one's genes; however this is not always the case for social beings. To be part of some society is to depend on one another – for food, protection, child-rearing, etc. As stated, these traits can be found even in ants. However, more sophisticated creatures take this social behavior to another level. Where an animal depends on other to survive, for some of its genes to survive (this largely based on Dawkins' "selfish gene" principle – that for a gene to be successful, i.e. survive in the long run, it must code for traits, behaviors etc. which help ensure its survival) they must code for social behaviors, even altruistic or generous behavior.

The most obvious, and likely most common example of such un-selfish behavior is kinship. An animal shares many of its genes with its close family members; when they help each other survive, they are aiding in the survival of their own genes. (Note – obviously, this is instinctively done; few animals act with a conscious awareness that they are preserving their genes for a future generation.) This is the sort that can be seen all the way down to insects, but also all the way up to humans. Another form is reciprocal

altruism – a favor for a favor, mutually benefiting individuals, even entire species. This can be expressed as symbiosis, for example between a bee and flower – the flower is pollinated by the bee, the bee receives nectar from the flower. A simple intraspecies example might be prairie dogs or meerkats taking turns with sentry duty. However, this is also the basis for much of human behavior, especially in regard to trade and barter; a hunter does not have the time to gather berries, and a gatherer hasn't the skills to hunt. They benefit each other by offering the goods and services which they are capable of providing. And, if one takes too much without giving, their social status is harmed. “Cheaters” are punished by social animals, through being ostracized, bad reputations, or even violence (Dawkins, 2006). (A fact I find interesting enough to include – vampire bats keep track of cheaters, who damage their social reputation by not repaying debts of regurgitated blood.)

These altruistic forms are clearly not limited to humans, and they seem not to quite answer the question of morality. Morality would seem to entail altruism where there is no reward, individually or genetically. As Dawkins asked, “What about the wrenching compassion we feel when we see... an animal whimpering in pain?” Our tale of Ripley and Jones is a clear example. Ripley, by saving Jones, is endangering her life to save an animal that is not close family, and does not closely share genes. She is endangering her life for an animal which seems largely incapable of returning the favor. Where does that most pure altruism come from, those good acts without an advantageous return, and why? Here, we deal with empathy.

The Merriam-Webster dictionary defines empathy as “the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, of another...*also*: the capacity for this.” Understanding, awareness, and a degree of sensitivity are required for a being to have the capacity for empathy. While these will be somewhat elaborated on in the following section, there is an organic basis for these traits, which come together to form that “most human” trait of all, empathy. I hope I am not misunderstood; the previously-mentioned forms of altruism are deeply interconnected with empathy. Empathy is an interaction of many things. Neuroscientist Paul Maclean proposed that empathy is a result of brain function integration; the interplay of primitive emotional circuits and higher frontal lobe activity, or cognition. When a portion of the brain involved in empathy is damaged, the capacity for empathy may not exist anymore, and brain imaging techniques show which structures are involved with feelings of empathy – the superior frontal gyrus, orbitofrontal gyrus, anterior middle temporal gyrus, and left middle temporal gyrus are a few (Harris, 2003). Still, knowledge of *how* we empathize does not seem to satisfy the question of *why*, at least not fully.

The “why” is another sort of integration. Going back to our example – why does Ripley save Jonesy? The simple answer: because she wants to, and because she is physically capable to do so. Because she has the capacity for empathy, the knowledge of its potential fate, the emotional history with the cat. The *why* will be dissected in the following sections.

A few final notes for this chapter. Again, I stress, this little musing on evolution is not even the tip of the iceberg, and there is still debate within the details of evolutionary theory, especially in regard to human traits. However, the details are not of utmost importance. The simple fact that these “most human” traits and attributions arose from the same processes that bore all other animal traits is important in regards to the human/animal distinction. Beyond the distinction being taxonomically incorrect, evolutionary theory, and more importantly its hominid evidences, butts against the idea that these traits are somehow beyond the scope of the animal kingdom, that they are something special in that they are shaped by things beyond nature. Indeed, as seen, many of these traits – physical, emotional, cognitive etc. are often found in other animal species, well beyond the hominids, and will be elaborated on in the following chapter.

IV. THE MECHANICAL ANIMAL

Ash: You still don't understand what you're dealing with, do you? Perfect organism. Its structural perfection is matched only by its hostility.

Lambert: You admire it.

Ash: I admire its purity. A survivor... unclouded by conscience, remorse, or delusions of morality.

The xenomorph (and many other aspects of the film) was based on the vision of Hans Rudolf (H.R.) Giger, famous for his dark biomechanical artwork, especially as seen in his collection *Necronomicon*. The exoskeleton looks as if it could be a highly technological suit of armor, perfectly in synch with the organism. Pipe-like structures run up and down the length of the alien, like some sort of hydraulic system. The mandibles seem to be overlaid with polished chrome. The mechanical nature of the beast goes well beyond the mere appearance thereof; Giger was blatant about his intentions for what the alien was to be – “it exists to kill, and kills to exist” (Nurmi, 2011). The sentiment is echoed by Ash in the film itself, shown in the conversation above. There is nothing “deep” or complex about the alien and its motivations. It does not feel, it does not question, it has no internal conflicts and few external threats. It feeds, grows, and reacts to its environment only for the purpose of ensuring its own existence, its survival. It is indeed a pure survivor, and a paradigm for the mechanical animal. To Ash, himself a robot, it is “admirable.” Note – even Ash, a *human robot* which is entirely mechanical has more ability to feel and think deeply, to admire at least, than the organic xenomorph.

Leave the world of *Alien*, travel back a few centuries, and we may examine another proposed mechanical animal, the concept of a man very different from Giger, Rene Descartes, “Father of Modern Philosophy.” Keeping in mind Descartes (1596-1650) lacked knowledge of evolution, or even what we today would call basic anatomy and physiology, his view which distinguished humans from animals still seems a bit, well, vicious. Another philosopher, Nicolas Malebranche, summarized the most common interpretation of Descartes’ views on non-human animals: “ They eat without pleasure, cry without pain, grow without knowing it...” Non-human animals are merely *non-sentient automata*, natural robots. Descartes’ reasoning behind this is two-fold. 1. Animals are “unsouled” beings, which entails a lack of consciousness, and 2. We simply cannot prove that animals are cognizant, thinking or feeling. The latter is simply the result of skeptical doubt; indeed, we can extrapolate such doubt to say we cannot prove or know anything (save that “we are,” according to Descartes) which while probably true is no way to investigate anything, including the abilities of non-human animals. Thus, we deal with the first aspect of reasoning, the “unsouled animal.” Now, Descartes didn’t mean to say animals were absent of thought or organic sense, rather he meant what animals feel and think are mechanistic responses to stimuli rather than conscious thought or feeling (Thomas, 2006). When someone kicks a dog, it feels pain and yelps. Yes, the dog feels the kick and yelps in response to it, and yes there is some sort of processing or thought which allows the dog to react, but without an incorporeal soul there is nothing beyond the simple audible response, again a “cry without pain,” as pain is a thing felt in the soul. Where humans have both the sentient, feeling soul in accompaniment to a

physical body, animals have only the physical body with which to experience the world – thus Descartes reasoning behind the human/animal distinction is based upon dualism, the mixing of the physical and the intangible.

The xenomorph is not the only non-human animal of importance in *Alien*. There is also Jones the cat. Where the alien is a killing machine, Jones is something much different. He is, obviously, a cat. He does not resemble anything mechanical, or act in a way that is overtly robotic. Jones is cuddly, expressive, and perhaps of greater emotional importance to Ripley than any of her fellow crewmembers. He meanders and does things which don't particularly aid in his quest to survive. To Descartes, however, Jones is as much a mechanoid as the xenomorph, which is a much less acceptable thought - the cat is so much more *loveable*! He may very well be the emotional heart of the movie's climax, and it is upsetting to think such importance would be ascribed to a *machine*.

The Cartesian view of animals is, unsurprisingly, not popular today, at least on the conscious level. As the thought of Jones as a mechanical being is upsetting, so is the thought of a mechanical Spot the family dog, a mechanical tiger in the wild, etc. (Descartes' role of soul and dualism in the persistence of the human animal distinction will be expanded and investigated in chapter 5.) On levels more academic and scientific, dualism has been replaced with materialism, the concept that the intangible, so long as it does not present itself in an observable manner, does not exist; materialism accepts only half of dualism, that which is "unsouled." While the Cartesian view of animals is formally rejected, it remains passively accepted to a great degree by the general public. Again, the theological undercurrents which lead Descartes to his conclusions will be

discussed at a later point, but for now suffice it to say that we still deny non-human animals – especially those which are not charismatic – feelings and awareness; perhaps a more accurate way to phrase that would be they are denied feelings and awareness of *importance*. While the audience was tied up in the survival of Jones, hoping he would make it out alive, he certainly would not have suffered like Kane, Brett, Dallas, Parker and Lambert, right? At the end of the day, despite his cute feline visage, he’s just a cat.

There are two ways to go about refuting this acceptance, passive or active, of the mechanical non-human animal: 1. Animals are not mechanoids, or 2. Humans are too mechanoids. It should be understood that “mechanoid” does not refer to materials making a being, ie. a robot made of synthetic materials, but refers to the motivations behind the actions of a being. A mechanoid is controlled by stimuli either external, or internally integrated into a being, that being unable to modify those actions it is programmed to perform. This is what Descartes meant, to my understanding. Now, to analyze argument 1.

The animal kingdom abounds with examples supporting the statement “non-human animals are not mechanoids.” A wide range of emotion and advanced cognitive abilities, including sentience, has been documented in many species. Given evolutionary history, it shouldn’t be surprising that our mental and emotional capacities differ in *degree* rather than *kind* relative to other animals. With great difficulty, I’ll attempt to limit examples to a few poignant ones.

The American Heritage Dictionary defines sentience simply as “the quality or state of being sentient; consciousness”. Perhaps a more precise definition should be used;

as currently understood and defined, sentient beings are those which are “capable of experiencing positive and negative affective states” (Duncan, 2006). Affect refers to the experience of feeling or emotion, thus sentience herein is the capacity to experience positive and negative feelings, to experience both pleasure and distress. Sentience goes beyond the experience of physical pain and pleasure; again, Descartes did not deny non-human animals corporeal senses, but rather denied a conscious awareness, and emotional accompaniment, to those pains and pleasures. For my purposes, I will stick with a quick investigation of the negative feelings and pain. Indeed nociceptors, those nerves endings which respond to pain, are found widely throughout the vertebrates and perhaps even in some invertebrates, cephalopods for example. It’s no surprise, as pain is an important survival mechanism, signaling bodily harm or damage and encouraging the animal to get away from that which is causing damage. But when and in what does pain become an emotional experience? Indeed, animals that feel pain beyond the mechanical are those capable of feeling stress, terror, anxiety and distress (“Do invertebrates feel,”), all those being dependent on a level of self-awareness.

To grossly simplify, for animals, the emotional response to pain is the result of nociceptive input mingling with other brain structures not directly related to pain, or relating to emotion. With this mingling, pain becomes an emotional experience, and emotion can even alter pain perception (Brooks & Tracy, 2005); with regard to the crew of the *Nostromo*, their terror likely made their deaths all the more painful, as negative emotion exacerbates pain. Through empathizing, unconsciously or otherwise, they likely felt, literally, pain when watching or thinking about Kane’s chest bursting open. The

degree of this connectivity differs between species and the structures known to be involved – for example, the habenula, a portion of the thalamus, is well-known as a point of pain integration in some non-human species (Shelton, 2012). However, the same basic idea accounts for the integration of pain perception with emotion animal species with the anatomical capacity to do so.

However, though emotional responses to painful and pleasurable sensations indicate sentience, it still seems perhaps that emotional couplings to such stimuli are autonomic, programmed specifically. Thus, we look to more examples of non-mechanical higher cognitive processes, and emotional coupled with not only sensation but situation.

The ability to communicate in meaningful, complex language had long been considered a hallmark of being human. Our words carry not only mechanical definitions but connotations, and can be produced and understood in sound, writing and sign. Irving J. Lee, a pioneer in the field of semantics, once claimed “To be concerned with language...is to bring us to the heart of things *human*... Language is the unique ingredient in man, for where it does not exist, there abides little that is human” (Lee, 2005). This statement rings with some truth; the requirements for true “language” include grammatical conventions, which humans may have a sort of monopoly on (Cheung, 2006). Still, language is an advanced form of meaningful communication, and the complexity of some species’ meaningful communication is underappreciated. It’s not news that great apes can have vocabularies (in sign language) in the thousands, but the fact is more remarkable when we consider some apes, like chimpanzees and bonobos, are not merely associating a form with another form, an object with a word, but comprehend

the meaning of the word when abstracted from an individual physical object (Haun & Call, 2009). Indeed, Jane Goodall believes the only substantial difference between humans and chimpanzees is the degree of complexity of communication used (2002). Leaving the world of primates, consider the orca, pods of which have distinct dialects depending on which area of the world the pod is native to. Orcas are even capable of learning new dialects as adults, and their dialects change over the years in a process similar to the evolution of human languages, i.e. mistakes in speaking accumulating over the years (Filatova, Burdin & Hoyt, 2010), directly in conflict with the belief that humans are unique in their ability to pass on a system of communication as it stands in the previous generation. Again, it's difficult to limit the number of examples of meaningful communication, but many simpler examples are also well-known, from the territorial songs of birds to the dances of bees, but a final, more interesting one: domesticated cats, Jonesies, have special sounds they use specifically for communication with humans, called the "meow," with specific tones and patterns of sound flux depending on what the cat wants or needs at the moment, whether it be food, affection, or to be saved from extraterrestrial menaces (Segelken, 2002). It should be no surprise, given the domestic cat's history of artificial selection, and this isn't language in the true sense, but it's a fascinating phenomenon: we don't just speak to non-human animals, they speak to us.

Another thing which we perceive separates humans from animals/machines is personality. A machine is programmed to respond in a certain way to a certain situation, and does not deviate from that reaction based on external factors or whims. Personality as defined in psychology is "the organized pattern of behavioral characteristics of the

individual,” i.e. the unique way each person goes about their daily situations. The word literally means the quality or state of being a *person*, a term I’ve intentionally avoided (to be later discussed), but for here, personality is the visible/behavioral manifestation of individuals acting in a manner not entirely defined by their species. Individual machines of a particular type would not act in such varying ways, unless defective, as there would be a preset reaction to each sort of stimulus that could be experienced. Many species of non-human animals would be defective machines given that thought; personality is “a wide-spread phenomenon in the animal kingdom,” from insects to mammals (Wolf, Sander van Doorn & Weissig, 2008). Individuals of species, especially reptiles and fish, can be placed in wide personality categories, for example attentive/inattentive, nonreactive/reactive, nonaggressive/aggressive, but along the continuum we find more adventurous personalities, those animals which are more likely to explore new territory for resources, or for what seems pure curiosity. There are graded dominant and submissive personalities, such as those found in social mammals (think wolves and gorillas). Some mother animals have much stronger maternal instincts than others of their species. Personality makes sense from an evolutionary standpoint; as personality traits (such as willingness to cooperate) played a large part in the history of human evolution, why should personality not exist in non-human species? When personality greatly determines actions, and actions greatly determine reproductive success, personality certainly can be seen in many species with the mental capacities to display it.

Alluded to above, a final aspect, and perhaps the most important of the few presented in this argument, which exhibits the non-mechanical nature of many non-

human animal species is decision making, which takes into account some of the above, especially personality, as well as analysis of a situation and emotion in the context of the situation, as opposed to emotion as a reaction to a physical stimulus. Physical stimuli may very well play a part in decision making, but to make a decision is to demonstrate greater flexibility and depth of cognition than an autonomic response. Decision-making entails choosing a behavioral response in a physical, social, and sometimes emotional context; decision-making has been a phenomenon in the animal kingdom for hundreds of millions of years, in some form or another (O'Connell & Hofmann, 2012). The ability to make decisions, even well-informed ones, does not necessarily bode well for an individual; *Alien* demonstrates many a situation in which humans make decisions which remove themselves from the gene pool – beginning with the crew bringing aboard the infected Kane. Even if it was the robot Ash opening the door, the rest of the crew *knew* better than to bring him and the facehugger aboard, but the emotional considerations overrode the practical, survival considerations. And they all died terrible deaths, save Ripley, the only one who wanted Kane off board. Which isn't to say Ripley made wise choices either; though they were both fine in the end, the decision to go back for Jonesy was a bet against her survival towards the film's end – indeed, that moment of emotion driven foolhardiness remains the bane of many a cineophile. Yet this all demonstrates that decision-making, especially bad decisions, separates certain individuals of various species from machines. Individual machines of a certain type/system/etc. (analogy: species) are not capable of making decisions, are not capable of “being dumb,” are not capable of overriding the response to a given situation or command. To new situations

and external commands, a machine has a set response to that new thing, even if that response is a lack of response. A machine does not fail to notice certain aspects of a situation; all is taken into account. Many species of non-human animals demonstrate the ability to make bad choices, to fail to take into account all aspects of a situation, to now-and-then let emotions and attachments override an adaptive decision. Whether it is realized or not, they can choose to remove themselves from a population.

I cannot stress enough the difficulty I find in narrowing my non-human animal examples, and so I'll pick one which has stuck with me for years to illustrate decision making. I first saw it in a PBS documentary about Echo, an African elephant, and her well-studied herd ("Echo: An Elephant," 2010). Echo's 34-year-old daughter, Erin, had been mortally wounded and was dying of blood poisoning during a migration. Erin had a juvenile son. As Erin fell further and further behind the herd, Echo's staying by her posed more and more of a threat to Erin's son, the care of whom was taken over by Echo. Yet Echo stayed with and circled Erin for days, comforting and checking on her. However it came to the point where Erin could no longer move, failing but still clinging to life in an area where there was not enough food to sustain Erin's son. After much hesitation, leaving for a short time and returning, Echo chose to move on with Erin's son, and leave Erin dying. Two weeks after she left, Echo returned to Erin's place of death, finding the bones of her daughter and going through a "grieving" process often seen in the elephant world.

As Descartes asserted, there is no definite way to know the thoughts of an elephant, but her behavior told the story of a difficult decision, a drawn-out decision. Had

there not been a process of decision making, it would not have made sense for Echo to circle her daughter, wasting precious time and energy, endangering Erin's offspring further. Even when it was obvious to the rest of the herd, and Echo herself, that Erin was not going to survive the trip, Echo did not move along. She continued to hesitate, leave and return, circle and stall. If a machine is an efficient decision maker, predetermined to make and execute a choice as soon as the factors surrounding that choice had been made apparent, Echo is a terrible machine.

Now, there is a problem with this argument, that non-human animals are not machines. Firstly, those who subscribes to Occam's razor would disapprove; even the limited examples above have a sprawling quality, and examples are often species-specific. To illustrate that animals are not machines requires each animal species to be examined given our definition of a machine; to reiterate, that is an entity which is controlled by stimuli either external, or internally integrated into a being, that being unable to modify those actions it is programmed to perform. This brings us to the second and greater problem: many – if not a majority of - animal species to fit this definition of a machine. The majority of fauna on the earth are not wolves, elephants, primates, or even cephalopods; the majority of the examples in the argument above are, for lack of a better term, “higher” animals. Most animals lack the anatomical structures needed to integrate physical stimulus and emotional experience. Most lack the capacity to make decisions in this deeply thought-out manner. It's important to keep in mind, the word *animal* covers not just mammals, birds, reptiles/amphibians and fish. Sponges, ribbon, flat and segmented worms, urchins and starfish, nematodes, insects, jellyfish, they and many,

many more are also animals. While there is certainly variation among these such animals, generally they lack the nervous systems, thus behaviors, to qualify as non-mechanical beings. Consider members of the sub-kingdom Radiata, best known as the jellyfish group. Our proud jellyfish doesn't really have the capacity to be proud – it has but a simple nerve net, what is essentially a peripheral nervous system, able to sense external stimuli and react, but with no higher processing. Like Descartes' mechanical animal, the jellyfish can feel but does not have feelings, can act but without a sense of intention, only function. This same mechanical quality extends beyond jellies; members Bilateria, the sub-kingdom of bilaterally symmetrical animals (encompassing the vast majority of animal species) have brains, but many species' are too simple to influence behaviors in a manner which would qualify those behaviors as non-mechanical.

Clearly the “animals are not machines” angle is heavily flawed. It would have to be conceded that only some, and few at that, species are non-mechanical. There is a divide, not entirely based on taxonomy, in the animal kingdom between those species which are and are not mechanical (note, this divide largely matches with the mentioned colloquial usage of “animal,” which refers exclusively to mammals and other complex vertebrates) and this first argument becomes a great mess, and in the end there is still two groups: the mechanical and the non-mechanical, which isn't to say that divide is entirely false – it's very real, and important to the sections on moral implications, to be discussed – but it is still problematic in that human ability is still not looked at in the context of a complete spectrum of animal ability. Thus, we examine argument number 2: humans, like all animals, are also machines.

This is no new idea. Descartes claimed humans were the only non-mechanical beings on earth, but French physician and philosopher Julien Offray de La Mettrie (1709–1751) believed that humans, presumably like all other animals, were mechanical. He asserted there was nothing beyond the physical to which human behaviors may be attributed, a bold assertion - especially in a pre-Darwinian era. According to Offray de La Mettrie, a human being is an animal of such machinery which allows it to do and experience these things with seem paradoxically non-mechanical. “To be a machine, to feel, to think, to know how to distinguish good from bad, as well as blue from yellow, in a word, to be born with an intelligence and a sure moral instinct, and to be but an animal, are therefore characters which are no more contradictory than to be an ape or a parrot and to be able to give oneself pleasure” (Whimster, 2006).

Offray de La Mettrie lacked, as we still do today, a perfect knowledge of this machinery, especially neurological, which offers different animals different abilities, but his arguments seems to allude to the spectrum of animal ability. There is nothing which directly disagrees with evidences given in the first argument, but the essence of this second argument is obviously different: the end result is not two groups of animals, the mechanical and non-mechanical. Rather, all animals are mechanical, existing on a spectrum of mechanical sophistication – if a jellyfish is an abacus, a mouse is a TI-82 and a human being is a super computer. Animal ability and behavior is determined by animal machinery, and not only the neurological system but a combination of that and other bodily aspects, for example human abilities/behavior would be much different if we had no opposable thumbs and walked on all fours, but had the same brain. While this

argument could be greatly expanded and reinforced with discussion of varying species, with varying bodily systems and varying ability and behavior, it is at its core wonderfully simple. Perhaps it's stating the obvious, that what we as animals have determines what we as animals do, but it puts humans, along with everything else, back on the spectrum. We are not a distinct category, we are a member of a categories with distinct abilities, as well has many overlapping abilities shared with other animals. Ash, a machine, had the ability to admire the xenomorph because his mechanical systems were such that we was able to feel admiration. We make decisions, create art, use metaphors, feel, and so on because we have the machinery to do such. It is in our machinery, the brain structures discussed, the bodily properties which allow us to exist as we do, which allows us to act in ways we interpret to be uniquely human, non-mechanical. A simple machine, a jellyfish, can only exhibit so many different problems; at some level, a simple machine either works or doesn't work. A more sophisticated machine is capable of being glitchy, having different programs be more ingrained and advanced than others, those programs differing machine to machine, translating perhaps into the quirks of human behavior, and the quirky behavior of other sophisticated animals. Now, this said I feel I should address part of the definition of a mechanoid used in the arguments – “a being, that being unable to modify those actions it is programmed to perform.” I still feel this is applicable in light of the claim that humans are machines, the actions we perform *are* ingrained into our neural machinery, and dictated by our other aspects of anatomy and physiology – it just needs to be taken into account that we have many, many actions “programmed” within ourselves, we make a choice based on what is possible for us to do. I previously stated,

while speaking on personality, that it would be a defective machine which shows personality – perhaps this statement was inaccurate. Rather, it takes a more sophisticated machine, with nuanced programming. While the mechanics of the animal world are still being very much questioned and investigated, “we animals are *all* machines” seems a much more elegant statement than “some animals are machines, but not humans.” The mechanical animal may not be such a myth. Still, a bit more clarification is needed, on what a (human) machine implied herein.

I want to be as explicit as possible, and that requires some reiteration. As stated, animal behavior and ability is determined by organic animal “machinery,” but this does not mean to be a machine is entirely deterministic; humans (and other intelligent animals) are not devoid of freedom, as the word “machine” might imply. For an animal like a human, *freedom is built into the machinery*. Think back on decision-making, an obviously real phenomenon. Ripley, based on her anatomy and ability, had the option to save Jones. She had the capacity to choose, and a capacity to act; these capacities are based in anatomy, and the act of rescuing Jones is a manifestation of her particular “machinery.” All the examples presented in the first argument, that animals are not machines, are factual and valid – especially regarding decision-making. Again, semantics and categorizations are playing a part, seen in the differentiation between the first and second arguments, that all animals are not, or are machines. “Machine” in the first argument refers to the sort of machine we are inclined to think of – cold and robotic in nature, Descartes’ organic machine, lacking freedom of choice. “Machine” in the second argument refers to an organism which has or lacks freedom *as based on its machinery*.

Perhaps it is not the second argument I have accepted, as both arguments make valid points. It is the *second definition of machine* I have accepted. With this second machine accepted, but the facts of the first argument still relevant, a sort of paradox is made when questions of value are brought up. Are all machines of equal worth, when worth beyond the inherent is examined? No; with the second argument/definition, we have created a unified category, but not unified worth among animals. This will be elaborated on in the final chapter; I wish to not only acknowledge, but embrace this apparent paradox.

Also, to address some assumptions that might be made about the term “machine.” I fully acknowledge that its use herein does not always parallel what is typically thought of as a machine; the word is used in this chapter because partially for brevity’s sake (“machine” is an easy word to which I may attach the concept of the organic animal machine), though I do feel it fits given a few twists. The word “machine” implies a maker and a purpose. Machines, in typical thought, are intentionally constructed for a practical purpose determined by that maker. The organic animal is not this sort of a machine; there is no maker and no inherent purpose (unless we consider evolutionary process the maker, and passing on of genes the purpose – though that still doesn’t quite fit).

Would Descartes be convinced given this argument, and accept these definitions? No, as many others today and in the past would not be. For many, it’s not a question of the material, but the spiritual – thus, I continue to examine claims of the soul, and more importantly the idea that *we are made in His image*.

V. IMAGO DEI & DUALISM V. DARWIN

Charles Darwin was highly aware of the philosophical and theological baggage evolutionary theory carried, especially given his background as a student of theology. Some of these stances are well-accepted today; he stood firmly against racism and slavery, and believed his understanding of the natural world would aid against such institutions – though unfortunately evolutionary theory was often construed to support these things, but that is another story (Moritz, 2012). Other implications remain controversial to this day, and these implications of human uniqueness are of concern here.

It was only after much deliberation he released *On the Origin of Species*, and perhaps in the name of caution he ended the work with a nod to a higher being: “There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one...”. Note, he also was careful not to address abiogenesis, the question of how that first ancestor(s) came to be, leaving that in the hands of a creator. In the second addition, he actually added the phrase “originally breathed *by the Creator*” (Porter & Graham, 1993). Unsurprisingly, this caution and pandering did little to quell the storm; while he nodded to a god he didn’t soften his claims, claims which are inherently packed with philosophical implications about our place in the world.

The concept of biological evolution was a perceived assault on all creation, most importantly on the inherent dignity of the Creator’s children, humankind. Genesis opens with the story of creation; verse by verse, God pieces together heaven and earth, darkness and light, waters and dry land and fruiting plants, animals of all sorts. Earth, the universe,

according to the Good Book, is not accident nor incident. It is tailored-made for mankind. “And 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 fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth” (Genesis 1:26, King James Version). (Mankind was meant literally; women only came after this declaration, but for simplicity’s sake and to reflect more recent times, humankind will be the assumed meaning.) And there it is, the essence of the human/animal distinction. More a manifestation thereof than a cause, but used as justification nevertheless.

In Darwin’s time, the accepted creation story told of massive, cataclysmic creation, reflected in the popular theories of the time. Catastrophism was the name of the game, the paradigm stating that the earth was formed and changed in a short period, through massive cataclysmic events (i.e. “catastrophes”) which paralleled the stories of creation, flooding and quakes as told in the Bible. While the term is most commonly used in geology, the same sentiment was echoed in biology; through great godly events, each individual species was created, with mankind as Earth’s highest creation. Geologists of the era had been proposing the now-accepted paradigm of uniformitarianism, the concept that the forces we observe today – erosion, slow-shifting tectonic plates, etc. had over great spans of time shaped the world we now know. Darwin, inspired by these geologists, had proposed another biological parallel. There was no grand creation, but rather species had been changing for eons due to the pressures seen today, the competition for limited resources in particular. Indeed, Darwin saw no particular reason humans should be exempt from these pressures, these changes.

By the time the major western religions were coming together, all other hominids had been extinct for quite some time. Anatomically modern humans, *Homo sapiens sapiens*, then and now, are the only remaining members of the genus *Homo*. Given a limited understanding of the natural world, and the resulting perception of human uniqueness, the creation story outlined above is as normal a reaction to the observable world as the stories of Zeus throwing down thunderbolts and Poseidon churning the waves. Nowadays, collective human knowledge of the animal kingdom is much more extensive; the more non-human animals are studied, the more consensus in the scientific world that human abilities are of a peculiar *degree*, but not *kind*, as postulated by Darwin. Tool users, language users, and personalities abound in the animal kingdom. Regardless, the concept of *imago Dei* remains alive and well; more modern interpretations of *imago Dei* no longer claim that humans possess different kinds of abilities, this being the “substantial” position (i.e. humans are of a different substance). They are more nuanced; *imago Dei* is now an issue of relation between humankind and the divine. This relational stance puts forth the idea that humans are not unique in terms of substance or ability, but in their relations to the Creator (Miller, 2011). This is clearly more difficult to tackle; while anthropological evidence would include earlier hominids in this category, I cannot think of any other species currently on the planet which interact so greatly with concepts of the supernatural and divine.

Even so, this may still exist as a question in the realm of degree, and not kind. The relational approach implies that the relationship between god and man is the *cause and reason* for such large intellectual capacities; humankind is generally rational so that it

can, and because it does, make connections with the divine. As theologian Karl Barth said, "...man is the being that is for God. It is as such that he surpasses all other creatures" (Miller, 2011). By definition, both the substantial and relational conceptions of *imago Dei* function to preserve the otherness of human beings. Unless all animals are created *in His image*, humans have a unique relation to God which other animals do not; the Bible makes this case clearly. As long as humans are solely connected to God, by relationship or substance, there is still a sense of distinction between humans and all other creatures. The relational approach simply makes the issue more slippery, by making the argument based on the intangible; how does one argue against what cannot be physically observed?

The presence of religion in humankind, and the concept of *imago Dei* may also be a question of degree of ability. Religion is a wide-spread human phenomenon, and in most religions, creation stories are, of course, common. However, not all religions include the concept of *imago Dei*. Humankind being borne from the Earth itself or other animals are themes in many culture and religion's creation stories. We humans, more so than any other animal, are curious. We tend to seek meaning beyond survival and reproduction, and we do this because we are anatomically capable to do so, because we can feel deep pain and happiness, because we can attempt to rationalize events – perhaps the most peculiar thing to try and rationalize is not "why are we here," but "why do we ask, why are we here?" As stated, when the natural world seemed strange and unknowable, religion was an entirely natural response. Dualism also made perfect sense. Once upon a time, humans did not even know that the brain was the thinking organ, and

it's only in very recent history that the neural mechanisms of the brain are being understood to some larger degree.

Dualism, a concept closely associated with Descartes, when applied to humans asserts that there are two aspects to an individual which interact to create their whole selves, one aspect being the physical (body) and the other being incorporeal (mind, or soul). Things that could be experienced by humans, but not physically understood, fell under the category of the incorporeal. Emotion, cognition, and thus sentience were not considered to be based in physical anatomy or physiology. I speak in past-tense, but dualism is still, passively or actively, widely accepted, especially in regards to brain and mind (i.e. the brain is what keeps the body alive, the mind is the entity with which life is experienced and analyzed.) Dualism is often tied deeply with religion, particularly Christianity – while the mechanisms of the human brain were ascribed to the soul, mechanisms of the inexplicable natural world were the results of gods' wills, spiritual entities mingling with or causing physical objects and phenomena. With Descartes, Christianity limited dualism in the material world to humankind alone; he found no justification in Christian thought that non-human animals should be dualistic in nature. Only humankind was made in God's image, and only humans had the god-like qualities of sentience: emotion and higher cognition, the “feeling” soul (Thomas, 2006).

Modern scientific thought now embraces materialism. While dualism requires the existence of an incorporeal entity, materialism is concerned only with what is physically knowable. For example, consider brain and mind. For a dualist, as stated, the brain is the physical element which works together with the incorporeal mind to create thoughts,

emotions, etc. For a materialist, there is no mind, or at most, the “mind” is what the brain *does*. Even if the way in which neural signals are translated to thoughts is not yet fully understood, the materialist does not postulate a spiritual entity to fill in the gaps – as the physical is more and more understood, the gaps to be filled shrink. Now, materialism cannot, and does not attempt to disprove the existence of the incorporeal. However, as the natural world is understood more each day, materialism takes over more gaps where dualistic thought once reigned. It cannot be known that there is no God, but it can be known that the earth isn’t 6,000 years old. (Again, this is assuming one believes things can be known at all!) Plenty of theists still exist, but young-earth creationists and catastrophists are becoming a thing of the past. This sort of advance in scientific knowledge helped push the understanding of *imago Dei* from the substantial to the relational.

Humankind has been described as “The Questioning Animal.” We examine existence not only on a “how” level, but on a “why” level. This questioning/curiosity bore much of religious thought, such as the concepts of *imago Dei* and dualism, different schools of philosophy and education, this thesis. Recall, for some time now, this has been the case – in modern times, yes, humans are *the* questioning animal, but in millennia prior we represented *a* questioning animal. We now know that non-human hominids also questioned – not only did they use language, tools, and reason, they too formed religions, and the anthropological evidence for this is “incontestable” (Moritz, 2012). The question *imago Dei* addresses is the same question which inspires *Alien* : are we alone? which may be reinterpreted on Earth as: are we unique? Are we *different* from those animals around

us, and how so? *Homo sapiens sapiens* is irrefutably an animal of evolutionary origins, and while it is today the only “questioning animal,” that has not been the case for long (and, with a nod to evolution – and maybe even space exploration - may not be the case in the distant future). Is human uniqueness still a question of dualism? Does uniqueness come down to a notion of *imago Dei*, that humans alone are made in God’s image? Even if other species have contemplated their perceptions of the divine?

A personal note: if my time in a Catholic institution has taught me anything, it’s that the attempt to dissuade (most) people from religious tenets, from dualism towards materialism, is an entirely futile effort. The difficulty faced is the impossibility to disprove a God, to disprove *imago Dei*, to disprove a sense of human uniqueness. Frankly, I have little interest in that effort nowadays; militant atheism is exhausting. The nature of these things is that they cannot be disproven. On that note, this paper and I could very well be entirely wrong. There may be a very methodical and conscious God which breathed into anatomically-modern humans, and anatomically modern humans alone, a bit of its divine self. But where there is strong physical evidence, I accept it, and where there is not an explanation, I do not create a God of the Gaps – or at least, I try not to.

Just as science cannot coexist with young Earth creationism, *imago Dei* cannot coexist with a lack of human uniqueness. On a whole, we humans have accepted Darwin’s evolution, but not its philosophical and theological tailings. I write this as an address of the issue, not a persuasive piece; like I said, I know now the futility of refuting such a thing as *imago Dei*. But as Madonna sang – though with very different context and

meaning – I am a material girl, and this is a material world. We discover that more and more every day. While I am obviously enamored with my own human self, my human companions and humanity on the whole, I must accept not only evolution, but its implications. I am not unique in the universe, not even on this planet, though in modern times it is very easy to feel that way.

The question now is not are humans unique? but what does it mean if humans are not unique? By holding onto uniqueness, especially when it is of divine origins, life is somewhat simplified. Moral obligations are more limited to moral beings, i.e. humans are obligated to humans alone. Other animals, because they are not human, do not require moral consideration. How do obligations change when uniqueness no longer exists? Is a cat worthy of human-like consideration? What of the rescue of Jones?

VI. THE RESCUE OF JONES: IMPLICATIONS OF MORALITY & WORTH

Throughout the human/animal distinction, there is an attempt to conserve personhood as a uniquely human phenomenon. I've intentionally avoided using the word "people" and "person" instead of human(s), though the terms are colloquially interchangeable. By some definitions, this usage is accurate, but the original philosophical definition of a person is simply "a self-conscious or rational being," ("person") and it is this definition which sparks debate. *Person* is much more connotatively charged than the label "human" or the downright clinical *Homo sapiens*. We casually assert that people are humans which act in particularly human-ish ways; a person embraces life, is curious, altruistic to their fellow man, or at least a person is a human who is not totally terrible. It's similar and parallel to the connotations we put on "living," so that to live is to embrace life, explore, not simply exist. To be a person is a sort of privilege. (To summarize: living is to existing as person is to human.) Those who act in a radically socially unacceptable manner, the murders and rapists and child pornographers, are not *people*, and recall in the section on semantics that these are those who we accuse of being *animals*. These are the connotations which make the phrase "Animals are People Too" somewhat comical, but eliminate those connotations and there is some truth to this.

By maintaining the human/animal distinction and uniquely human personhood, life is much easier for us humans. To be a person is not a simple biological label, like *Homo sapiens* or even human. To be a person is to have certain rights, not strictly based

in our biology or abilities, through which laws have been based, from those in religious books to those in the law books currently. Life, property, privacy, autonomy - these are currently protected, for humans, to one level or another. To be a person is have worth, and to have some degree of dignity; when someone is aware of their own life and has the ability to feel certain ways about certain things, they are granted a degree of control over that life, and when “human” and “person” mean the same thing we see it fit all humans receive these dignities – to control their own life, to not suffer needlessly, etc. (Granted, this was not always the case, slavery being a clear and recent example.) Even those humans we call animals are entitled to a certain quality of life when imprisoned, and a certain quality of death if needed. They are still *human*, and though we insult them with the label “animal,” though we despise them, at level it is acknowledged that they are indeed people. All humans are people and all people are not animals. With this assumption we uphold that human dignity, that personhood which maintains the human/animal distinction, and gives a motive to keep that distinction intact. When animals are not people we don’t have to worry about destroying wildlife habitat, there are few glares when taking Fido for a walk on hot asphalt, we can hunt and farm and eat animal whilst protecting ourselves from our homes being destroyed, child abuse and cannibalism. There is little guilt when we dictate how a captive animal is to live its life, or when we chose the life of a car’s passengers over the life of a deer in the road by hitting it instead of swerving. Animal life is not granted the presumed inherent dignity of human life, of people.

Personhood is not a biological label but a moral status in its common use. If we were to consider the definition of “person” as presented, this would change. “A self-conscious or rational being” would encompass much more than humans, certainly not a majority of the animal kingdom, but many animals with which we interact with. If Jones was not a member of the Nostromo crew by his own free will, is he a slave? A being able to make decisions himself but forced into dangerous places and positions by the will of humans? If cats can be rational beings, *people*, why are critics so irritated that Ripley risked her life to save Jones but would not risk her life by letting Kane in for medical treatment?

Let’s assume the xenomorph is rational, making a conscious decision to kill the crew so that it might live – why is the life of a human worth more than the life of an alien? Ash, a robot, is certainly self-aware and rational – should his desires be secondary to that of an organic person? (The whole issue of artificial intelligence and machine’s rights could easily spawn a thesis of its own; if Ridley Scott’s *Alien* is a way to examine the human/animal distinction, his *Bladerunner*, based on Phillip K. Dick’s *Do Androids Dream of Electric Sheep?* is worth a watch for the human/machine distinction that we may well face and write of in the future. Interestingly it comes to a similar conclusion in that the distinction is much more blurred than imagined, if not entirely artificial, but again this is a whole other paper.)

Biological ethics philosopher Peter Singer has asked these questions of personhood and has accepted and stressed the philosophical definition and its controversial followings. When we look at all creatures which can be rational, sentient

persons, that moral status we assign human persons must be extended to animal persons. Furthermore, not all humans are persons. While we humans represent an extreme of intelligence and certain abilities on a *generalized* animal spectrum, not all humans are of equal ability; there are individual humans which have cognitive abilities far below the generalized ability of other non-human species. Some humans are not rational or even self aware. Singer is blatant about it to the offense of many: the severely mentally retarded are not people. Infants are not people. Humans are not granted personhood simply because of their species, and members of other species may be granted personhood if they fit the criteria to be a person. The granting of the moral status of person to all humans while excluding rational, sentient non-human animals is termed *speciesism* by Singer (2009), a term which nearly embodies the human/animal distinction and the attitudes behind it. Singer stresses the spectrum of animal ability when it comes to issues of autonomy and worth, "...we should drop the belief in equal value of human life, replacing it with a graduated view that applies to [non-human] animals as well as humans," "it is clearly not the case that all humans have cognitive ability beyond all non-human animals," citing gorillas with IQs well above 25 (that being the IQ below which a human is severely mentally retarded), speech in animals, the ability for other species to acquire knowledge and new skills to perform useful work, and the fact that non-human animals tend to get along fine without human domination or interference – animals have existed well before humans, and even domesticated animals are able to adapt to life without humans.

Dubbed the father of the animal rights/liberation movement, Singer seeks to expand the tenets of utilitarianism, “the greatest good for the greatest number,” to non-human animal species. To ignore the suffering of animals which are people is a travesty, especially since people are the source of much animal suffering, from habitat loss to Tyson meat farms. If the critics are right, if Joneses’ suffering is less important than Ripley’s, it has nothing to do with the fact that Ripley is a human and Jones is a cat. It has to do with the cognitive abilities of the two; Ripley has a greater sense of her past, has assigned importance to surviving which is deeper, based on more things, than Jones is capable of comprehending. Ripley’s sense of her future is more understood, as an intelligent human she plans in years, not days, hours or minutes. She remembers Earth not just as a location but as an emotional point, a place where she was formed, a place she left and is determined to return to. While Jones would likely have been content roaming the seemingly endless corridors of the *Nostromo* until his fiery and/or xenomorph-induced death thereon, Ripley would not. Now, had for some odd reason Ripley been a severely retarded human, the life of Jones would likely have taken precedence over her own. The greatest good for the greatest number cannot occur if the animal capable of experiencing good is dead, while another which does not comprehend experience lives in lieu.

With many, Peter Singer is an unfavorable fellow. His multi-species utilitarianism is asserted not just in the hypothetical world of *Alien* but, obviously, in real-life situations, where emotion and law often reign. Some of his least popular stances are in his justifications of abortion (at any stage of development) and infanticide – fetuses and

newborns do not fit the criteria for personhood, and thus whether they are to live or die is a question of what will bring the most good to those people whose lives are entangled with the baby. Also, in what can be described only as hilarious, he justifies non-harmful sex between humans and some animals. (His approach is not entirely rights based, but based on his utilitarian principles. Do non-human animals have the right to not be desecrated by horny farm boys? Nah, not inherently anyways. Depends on if it makes a net gain in goodness.)

Singer refutes the central notion on which much of the human/animal distinction is based: the inherent worth of the *Homo sapiens*. While personally I take no offense to the claim that humans are not inherently more important than other species, I still feel a sort of negative, automatic gut reaction to many of his arguments. I admit that when looked at through a lens of pure rational utilitarianism, or even just pure rationality, his less popular stances – take infanticide, if done humanely – make sense. As a non-believer, as I said, I have no problem with the concept that human life is not inherently more or less important than other animal life. That life should be prioritized by knowable worth, rather than perceived inherent worth, makes sense. Even on a societal level, we accept and institute varying degrees of personhood to humans; really, those under 18 years of age, or rather 21, are not allowed full autonomy, based on generalized abilities of youths. Yet no matter how much I consciously accept the arguments, that gut reaction remains. Part is simply what is felt when a social norm is challenged, having grown up in an environment when infanticide and interspecies sex is generally frowned upon. Still

another part of this reaction lays in an unanswered question: why are we humans obligated to extend utilitarianism to other species?

Humans are part of nature. Not observers of nature, not destroyers of nature, but part of nature. We have been and we still are; it's a fact given the artificiality of the human/animal distinction. If the human/animal distinction was accurate, however, to be obligated to other species, to respect the rights of personhood in those being which are persons, would actually make more sense. The "stewards of nature" mindset would be much more applicable if we humans existed on a realm above other species, looking down, taking pity on those animals which were rational, self-aware, but ultimately unable to stack up to the mighty human being. However, we are not inherent stewards, and nature is indifferent to all perceived virtues and values – one could almost call it *nihilistic*. Were we to assign nature a single virtue anyways, it would favor survival ability. Nature knows no obligations, no stewardships, no moralities. Even survival cannot be labeled "good" in nature, survival simply *is*. In an odd sort of way, it seems like Singer and likeminded folk are exacerbating the human/animal distinction, or rather the human/nature distinction. Where other animals need only survive, humankind is obligated to let them survive? Where nature functions to favor the well-fit, we are obligated to lessen our fitness for the sake of other species? Because we are currently dominant in the animal kingdom, we are obligated to try to be less dominant? Nature does not obligate us to restrain ourselves; again, there are no obligations in nature, no utilitarian dreams, no goodness.

That stated, I realize the ultimate hollowness of the “nihilistic nature” argument. It may be correct, but because we are *naturally* able to examine ethics, to empathize, to alter this world and perhaps others (As of writing this, Curiosity just touched down!) on scales previously unseen, the argument that we have no obligations seems unsatisfactory. To be explicit, if humans are borne of nature, in a sense all that we do is natural, simply because we can do it. I agree with Singer to an extent; if he’s an animal liberation type, I’m an animal welfare type. For example, the human animal needs animal products to be healthy, such as vitamin B12, but because we empathize and can see beyond immediate actions, we need not have cruel slaughterhouses and non-specific fisheries. Part of human health is a healthy conscious. As an extreme on the spectrum, we are plagued with this issue. Saving Jonesy, whether a smart move or not, was not a strange move. But Ripley was certainly not obligated in any way to allow the xenomorph to live while she dies. Likewise, the xenomorph, if it was a hypothetically rational being, a person, would not be obligated to allow Ripley’s survival assuming it allowed for its own existence to continue. At the end of the day, nature’s sole “virtue,” survival, remains almighty.

The obligations humans create are very much tied into personhood, into self-awareness, oftentimes rationality. Using myself as an example, my obligations to other species are based in Richard Ryder’s idea of “painism,” that is the idea that an organism capable of pain – not the fruit fly sort of pain, but the fuller sense of pain discussed in chapter four – has the right not to feel undue pain (2005). My sense of obligation to my fellow humans is more based in karma and “the golden rule.” Regardless of the cosmic uselessness of these obligations, they make sense given the facts of this existence, they

provide me a sense of worth in the vast universal worthlessness. And really, there is no God's eye point of view. There is no entirely unbiased, uninterested perspective. There are only those people which are sentient, which are capable of experiencing, well, experiences. There are only individuals, and individual perspectives. When Ripley was risking her life to save Jones, there was no one looking down, tsk-tsking at the hilarious, tragic, pointlessness of her fight. There was only Ripley, and Jonesy, and an alien. Because the only experience is the passionate experience of people, this existence is not a nihilistic one – it is, rather, existentialist. Because we humans, reading this piece, are people, the worth we assign to ourselves and our fellow animals is worth as much as anything.

For several dozen pages, I've stressed the artificiality of the human/animal distinction. While people are stubborn, and my own argument of "no all-encompassing viewpoints" may backfire on me in this regard, I hope I've made this artificiality an understood fact. I've also stressed the implication: human life is *inherently* worth no more than any other animals'. But perhaps the most important discussion to emerge from all this is that of personhood, of machines with non-mechanical qualities. Ripley's decision to save Jones was rash, dangerous, stupid, heroic, and not the result of pondering the human/animal distinction, not the result of coming to some Singer-esque conclusion, but the result of being capable of experiencing and understanding loss, terror, pain – physical and emotional. When the Nostromo was doomed and all human companions dead, Ripley, as a person, had the capacity to assign and acknowledge worth. Perhaps she too subscribed to an unnamed painism, perhaps it was entirely selfish – if she lost Jonesy,

she had lost her last reason to live on – whatever the reason, she went back. (Thought: In the chapter three, I mentioned that Jones probably hadn't the capacity to return the life-saving favor. Maybe in a way he did, by giving her a motivation beyond herself to make it out alive. As our briefly-mention neuroscientist Paul MacLean once asked, "Why else are we here, if not to help one another?") Ripley did not base her worth on human vs. non-human; where she risked everything for a cat, she would have had Kane die.

Just because this decision was rash and not thought out does not mean it was entirely without base. Just because worth is assigned doesn't mean all assignments of worth are equally sensible or defensible. Consider a situation with not Jones the Cat, but Jones the Lobster. If lobster Jones wasn't to die in a fiery explosion on the *Nostromo*, he was to die in the boiling waters of a hot pot. Lobster Jones doesn't really have a brain, cannot feel pain, and likely the last interaction had between Jones and Ripley would have been a hard pinch on the hand. While audiences – if not pretentious critics – were overjoyed at the rescue of Jones the Cat, the reaction to saving Jones the Lobster would have been somewhat less enthusiastic. It would be as hollow to say all assignments of worth are equal as it would be to say there is no worth or obligation in this existence. Personhood is not just the ability to assign worth and thereon make decisions, it is the ability to be rational about that worth, those decisions, to understand the history behind and future based on a decision, to some degree. Had Ripley decided herself to let in Kane, it would have made sense. She had a history with Kane, as a co-worker and companion, and his continued existence as such would have been welcome. As stated previously, saving Jones the cat is acceptable, as he had long been a source of comfort,

and when all else went to hell he was all she had left. Both Jones and Kane were capable of feeling pain, suffering, and while utilitarian protocol would have doomed Kane (he was doomed anyways), the decision to do anything but leave behind Jones the Lobster would have been comical.

As promised in chapter four, here I will address blatantly the apparent paradox of the argument. Starting with the human/animal distinction, we begin with the concept that humans are inherently of greater worth than any of their fellow animals. By challenging the assumptions and assertions of the human/animal distinction, animal worth is made uniform among species. Yet here I make a new claim of worth, and thus a new distinction. Worth has been deconstructed and built up again, but there is not really a paradox; the human/animal distinction provides a system of assigning worth among animals which is overly-simplistic, exalting one species above all others. The difference between the human/animal distinction and my new claim of worth can be paralleled to the difference between the first and second mechanical animal arguments: More than anything, there is a difference in thinking. Even without a clear-cut human/animal distinction, there is a spectrum of generalized animal ability, and at the most complex end of that spectrum there are *Homo sapiens sapiens*.

As a human myself, I am intelligent, empathetic, with a penchant to categorize and assess. This being a fact, again, the “nihilistic nature” argument feels empty, uninformative, useless because I see worth in certain creatures around me. I see not only worth in terms of environmental significance, or economics, but the sort of worth that can only be seen with empathetic eyes, an understanding of positive and negative affective

states - contentment, happiness, anxiety, pain. Because I do inhabit that extreme end of the animal spectrum, I can both logically deny inherent worth in species, human or otherwise. I can also see worth, undeniably, in individual animals with which I interact, or simply observe. My individual human perspective cannot allow me to rest easy with a simple deconstruction of the human/animal distinction. I can, and do, assign worth by knowing that a lobster does not hurt nor bond like a cat does, by understanding how a cat hurts, by having an emotional connection to a cat through little commonalities and histories that I couldn't share with a lobster. Consciously or intuitively, I assess the degree to which I am obligated to an animal in a given situation; I might leave an earthworm writhing on the sidewalk after a rainstorm, but I could not do the same in good conscience were it an injured cat instead. From a human perspective – the only perspective we can know – there is varying value among animals, and with value there is moral obligation to them, to alleviate their suffering, slaughter them humanely, to treat them with kindness, to consider their potential pain. Where there is human-like capacity for suffering, or happiness, *there is an obligation, borne of that “most human” ability to empathize*, to treat an animal like we would a human.

To elaborate: With our human perspectives, the worth we assign to animal life should be shaped by all those extreme, seemingly miraculous traits which make us such fascinating specimens on the animal spectrum. Because we are sentient, capable of experiencing those positive and negative affective states, why shouldn't those creatures which bring us joy be worthwhile? The universe is disinterested in the survival of Ripley and Jones as much as it is the survival of the xenomorph - but those biased human

perspectives, the only ones we can ever know, the only ones we can ever understand, let us sigh relief when the cat is saved, when the human is finally home-free, and when the alien is dead.

In the *Nostromo*, in a house of horrors on the brink of a fiery death while floating through lonely space, Jones is not *just* a cat. Jones is both a foil and a reflection of Ripley. Jones is a clever enough little mammal – he succeeded to survive a monstrosity which took out many a human – but he cannot quite understand the implications of “the self-destruct mechanism has been set, and I am floating through space millions of miles from my ancestral home.” As an sentient, empathetic, cat-lady/strong-independent-woman-personality type organism, Ripley is perhaps obligated to help Jones avoid the negative consequences of his ignorance. Because Ripley has exercised her capacity to decide where and how Jonesy lives, she is perhaps even more so obligated to him. Yet this obligation would not exist if Jonesy were a banana slug, a fruit fly, or a lobster. Jones is capable of feeling emotional pain, of feeling contentment, of being curious (nearly to his demise, the cliché lives on!). Jones has in turn brought Ripley comfort, and perhaps in what could well have been her last moments, a sense of purpose. Ripley may represent an extreme on the spectrum of animal ability, and Jones may not be so extreme. But it is Ripley’s status as an evolutionary extremity which allows her to see and act on (consciously or subconsciously) the bits of personhood, of *worth*, in Jones. They are machines running different programs, but the programs are still compatible enough.

At this point, it’s important to also recognize more explicitly the role of experience, not only ability, in assignments of worth. Experience shapes those biased

human perspectives as much as ability – though it is through those certain cognitive/perceptive abilities that experience is interpreted, mind you. Take an example, closer to home but with some similarities to the rescue of Jones: the story of Duchess the cat.

Duchess' human family, a mother with two small boys, lost everything in a house fire, including their dog. Duchess was rescued from the fire, but in poor shape; her body was covered with second and third degree burns. Having lost everything, but needing something for herself and her children to cling to in a tumultuous time, the family matriarch decided against having Duchess put down. This decision would be a costly one – from initial veterinary care to future surgeries and medications which would certainly be needed, the cost of keeping Duchess alive, pain-free and in good health would reach thousands of dollars easily. Thus, the family reached out through social media (the medium through which I learned Duchess' story) for the badly needed funds. My heart ached seeing the photos of the little cat, looking much like any third-degree burn victim – one can imagine, it's not a pretty sight. Money poured in for the cat, but not without criticism. Some felt the need to leave comments, in the spirit of “why not send the money to a human in medical crisis?” or “why not put the thing down, it's *just* a cat.”

To the family, to Ripley, it was not just a cat. When faced with horrors and flames, it was not *just a cat*; nor were Duchess and Jones mere objects of comfort, simply acting to fulfill some psychological need for attachment, like a doll. These animals are, on the entire animal spectrum, complex little beings, not nearly to the point of a human but close enough that they acted to reflect and bring out those “most human traits” –

empathy, caring, even the making of decisions perhaps against what is rational, to outside observers at least.

What *Alien* provides is a highly contextual example of the assignment of worth among animals. Ridley Scott and the film's writers intended this to be so. We know just the bare bones of the crew and Ripley's narratives. They are humans, they are on the job, they are not fond of that job, or of each other really. In this snapshot, we see a few assignments of worth on the lives of animals, really. It is an assumed obligation to life that causes the crew to land on LV-426. Ripley chooses the lives of many over the life of one when refusing Kane entry to the ship. Naturally, the lives of the humans, and cat, on board are deemed more important than the life of the alien. By attempting to rescue Jones from the *Nostromo*, Ripley puts her life's worth on par with that of Jones. And of course, humans still on Earth have deemed the alien of greater worth than the collective lives of all others on board the ship. Because these are all parts of a highly specific story, I hope it's clear that I am not advocating these specific choices and assignments, especially since this is, after all, a work of fiction. If in a real-life application one chooses not to risk their own life entire for a cat (or another non-human species with a degree of personhood), that's not a *wrong* choice. While I've tried hard to limit the scope of this discussion to *Alien* and not its sequel, *Aliens*, it's interesting to note that the role of Jones is replaced with a little girl, Newt, whom Ripley saves from a situation similar to that of Jones' – however, the danger Ripley faces, the risks she takes, and the effort she puts into the rescue of Newt is much greater than what was put into Jones' rescue. One must wonder, would she have done such for Jones? Nature's supreme "virtue," remains, again,

almighty in the end. Self-preservation and the preservation of one's own species are strong instincts in the human animal. *Alien* does not provide some sort of over-arching blueprint for all human interactions with non-human species. However, that does not mean the interactions presented are unworthy of investigation, of probing – it's a fictional story created by very real humans, and the audiences' experience of it is real too. The movie does not have implications for the human/animal distinction as much as it highlights the nuanced experience of this perceived distinction. The discussion goes well beyond a human/alien/cat interaction.

Humans do represent an extreme in the animal kingdom. We represent a pinnacle of creative, constructive, and destructive abilities. We are the most emotional, sometimes both the most rational and irrational of beings on the planet. We can, with our own brains, literally feel the pain of others. We are capable of looking into the sky and wondering what horror and beauty may exist beyond our own planet. Over and over again, it's been said – the human/animal distinction is false conception of the human animal's standing in the natural world. This is true. It's been said that human worth is not inherent. I stand by this. But in the aforementioned "paradox," these statements do not equate to a nihilistic existence, void of anything worthy of worth. Those listed abilities, those things that make us freaks of the natural world, they arose out of the processes which bore all other living things and traits. Without those abilities, this discussion would not happen; we humans would be incapable of contemplating the origins and implications of those abilities. Without personhood, we would not see the worth in other animals, human or otherwise, or our individual selves. The human/animal distinction is false, but

there are more nuanced distinctions which inform the assignment of worth – though it was rejected in a sense, the mechanical/non-mechanical distinction among animals is an example. There is not a distinction between humans and animals on the whole, but there are distinctions between species – without which, there obviously wouldn't be discretely classified species. A lobster and a cat, a fruit fly and a moose, a tapeworm and an echidna. Some of these species are incapable of feeling pain. Some are capable of creating emotional bonds. Some members of these species have greater or lesser capacities than others. As a human who is also a person, I am able to, with the help of some collective human knowledge, distinguish among abilities, can assign worth – not just among other animals but in regards to my own life.

Given such a small snippet of the character's life tale, we see little individual humanity in Ripley. The Nostromo, Mother, spacesuits and cryogenic hypersleep chambers all attest to the ability of humans as a generalized whole, Ripley is a rather mechanical thing in the beginning – she follows protocol, she doesn't have any particular affinities for the humans around her, she eats and sleeps and breathes with little joy or terror. It is between two non-human creatures, Jones and the xenomorph, that Ripley's most human qualities are apparent. She must be clever enough to survive, and simultaneously fight hysteria and terror. And in the end, she makes a very human decision, to save Jones the cat. It is seemingly irrational and yet understandable, it is heroic and stupid, and for the audience it makes Ripley a heroine rather than a mere protagonist. When faced with the horror of the malicious unknown, it is Ripley's ability to value Jones, an animal worthy of being valued, that makes her humanity a remarkable

thing. And though she may be another player in the Darwinian game, she is, with a little non-human help, capable of making her survival something more than an instinctual desire.

The artificial nature of the human/animal distinction is not a thing which diminishes worth. We do not have to be proud jellyfish to note the amazing qualities of the human animal. Perhaps the rejection of the human/animal distinction is a way to extend human worth, to extend animal value, by recognizing the amazing qualities of some fellow animals. Perhaps the rescue of a cat was the most human part of *Alien*.

Ripley: Final report of the commercial starship Nostromo, third officer reporting. The other members of the crew, Kane, Lambert, Parker, Brett, Ash and Captain Dallas, are dead. Cargo and ship destroyed. I should reach the frontier in about six weeks. With a little luck, the network will pick me up. This is Ripley, last survivor of the Nostromo, signing off.

Come on, cat.

References

Animal. (2008, July 27). Retrieved from <http://www.biology-online.org/dictionary/Animal>

animal. (n.d.). Retrieved from <http://www.merriam-webster.com/dictionary/animals>

Antón, S. C., & Snodgrass, J. (2012). Origins and Evolution of Genus Homo New Perspectives. *Current Anthropology*, 53(Supp 6), S479-S496. doi:DOI: 10.1086/667692

Bailey, D., & Geary, D. (2009). Hominid Brain Evolution. *Human Nature*, 20(1), 67-79. doi:10.1007/s12110-008-9054-0

Beatson, R., Loughnan, S., & Halloran, M. (2009). Attitudes toward animals: The effect of priming thoughts of human-animal similarities and mortality salience on the evaluation of companion animals. *Society & animals*, 17(1), 72-89. doi: 10.1163/156853009X393774

Berlinski, D. (2006). On the origins of life. *Commentary*, 121(2), 22-33.

Brooks, J., & Tracy, I. (2005). From nociception to pain perception: imaging the spinal and supraspinal pathways. *Journal of Anatomy*, 207(1), 19-33. doi: 10.1111/j.1469-7580.2005.00428.x

Cheung, T. (2006). The language monopoly: Plessner on apes, humans, and expressions. *Language & Communication*, 26(3-4), 316-330.

Darwin, C. (1871). The descent of man, and selection in relation to sex. In D. Porter & P. Graham (Eds.), *The portable Darwin* (pp. 321-360). New York: Penguin Books.

Darwin, C. (1859). *The origin of species*. (1st ed.). New York: Barnes & Noble Classics.

Dawkins, R. (2006). *The god delusion*. (1st ed.). Boston: Houghton Mifflin Company.

DeMoss, D. (2003, Dec 28). Alien: And you thought it was safe?. Retrieved from <http://chosis.coldfusionvideo.com/2003/12/alien-1979/>

- Diogo, R., & Wood, B. (2011). Soft-tissue anatomy of the primates: Phylogenetic analyses based on the muscles of the head, neck, pectoral region and upper limb, with notes on the evolution of these muscles. *Journal of Anatomy*, 219(3), 274.
- Duncan, I. J. H. (2006). The changing concept of animal sentience. *Applied animal behaviour science*, 100(1-2), 11-19. Retrieved from <http://dx.doi.org.dml.regis.edu/10.1016/j.applanim.2006.04.011>
- Echo: An elephant to remember [Television series episode]. (2010). In *Nature*. PBS. Retrieved from <http://www.pbs.org/wnet/nature/episodes/echo-an-elephant-to-remember/video-full-episode/5920/>
- Filatova, O., Burdin, A., & Hoyt, E. (2010). Horizontal transmission of vocal traditions in killer whale (*orcinus orca*) dialects. *Biology bulletin*, 37(9), 965-971. doi: 10.1134/S1062359010090104
- Goodall, J. (Writer) (2002). *Jane goodall: What separates us from chimpanzees?* [Web]. Retrieved from http://www.ted.com/talks/jane_goodall_on_what_separates_us_from_the_apes.html
- Harris, J. C. (2003). Social neuroscience, empathy, brain integration, and neurodevelopmental disorders. *Physiology & behavior*, 79(3), 525-531.
- Haun, D. B. M., & Call, J. (2009). Great apes' capacities to recognize relational similarity. *Cognition*, 110(2), 147-159.
- History of life on earth*. (2012). Retrieved from http://www.bbc.co.uk/nature/history_of_the_earth
- Human*. (2010, Sept 13). Retrieved from <http://www.biology-online.org/dictionary/Human>
- Lee, I. J. (2005). Language for the living. *ETC: A review of general semantics*, 62(2), 181-189.
- Miller, D. K. (2011). Responsible relationship: Imago dei and the moral distinction between humans and other animals. *International Journal of Systematic Theology*, 13(3), 323-339.
- Moritz, J. M. (2012). Human uniqueness, the other hominids, and "anthropocentrism of the gaps" in the religion and science dialogue. *Zygon*, 47(1), 65-93.

- Nurmi, J. (2011, July 27). Looking back in horror to 1979. *Los Angeles Times*. Retrieved from <http://herocomplex.latimes.com/2011/07/27/alien-guest-essay-looking-back-in-horror-to-1979/>
- O'Connell, L. A., & Hofmann, H. A. (2012). Evolution of a vertebrate social decision-making network. *Science*, 336(6085), 1154-1157.
- person. (n.d.). *Dictionary.com Unabridged*. Retrieved March 09, 2013, from <http://dictionary.reference.com/browse/person>
- Porter, D. M., & Graham, P. W. (1993). *The Portable Darwin* New York: Penguin Books.
- Quinn, D. (1992). Ishmael: An adventure of the mind and spirit. (pp. 55-56). New York: Bantam/Turner.
- Rhodes, M., & Gelman, S. A. (2009). A developmental examination of the conceptual structure of animal, artifact, and human social categories across two cultural contexts. *Cognitive psychology*, 59(3), 244-274.
- Ryder, R. (2005, Aug 5). All beings that feel pain deserve human rights. *The Guardian*. Retrieved from <http://www.guardian.co.uk/uk/2005/aug/06/animalwelfare>
- Scott, R. (Director) (1979). *Alien* [DVD].
- Segelken, R. (2002, May 20). *It's the cat's meow: Not language, strictly speaking, but close enough to skillfully manage humans, communication study shows* . Retrieved from http://www.news.cornell.edu/releases/may02/cat_talk.hrs.html
- Shelton, L. (2012). Mapping pain activation and connectivity of the human habenula. *Journal of Neurophysiology*, 107(10), 2633-2648.
- Singer, P. (2009). Speciesism and moral status. *Metaphilosophy*, 40(3/4), 567-581.
- The Senate Standing Committee on Legal and Constitutional Affairs, (n.d.). *Do invertebrates feel pain?*. Retrieved from website: <http://www.parl.gc.ca/Content/SEN/Committee/372/lega/witn/shelly- e.htm>
- The Smithsonian Museum of Natural History. (n.d.). *What does it mean to be human? dating*. Retrieved from <http://humanorigins.si.edu/evidence/dating>

Thomas, J. (2006). Does descartes deny consciousness to animals?. *Ratio*, 19(3), 336-363. doi: 10.1111/j.1467-9329.2006.00331.x

Tracing fossil finds: A hominid timeline. (2009). Retrieved from http://www.exploratorium.edu/evidence/lowbandwidth/INT_hominid_timeline.html

Whimster, S. (2006). The human sciences. *Theory, culture & society*, 23(2-3), 174-176. Retrieved from <http://tcs.sagepub.com/content/23/2-3/174>

Wolf, M., Sander van Doorn, G., & Weissig, F. J. (2008). Evolutionary emergence of responsive and unresponsive personalities. *PNAS*, 105(41), doi: doi:10.1073/pnas.iti4108105