The Involvement of Insects in Human Society

 Compared to the rest of the animal kingdom, the insect world is considered one of the most evolved of all species. This is only second to the most evolved species, which are the micro-organisms and bacteria. As Michael Engel states, “It goes without saying that insects epitomize diversity, and with over a million-documented species they stand out as one of the most remarkable lineages in the 3.5-billion-year history of life on earth (Engel).” This goes to show that before the arrival of mankind insect had long held onto their niche in this world. Even more compelling, they even survived the cataclysm that wiped the dinosaurs of the face of this earth. Yet, even though they could be considered the true heirs and dominant species of this world, they have had a miasma of impressions from the new kids on the block. Throughout human history insect have been considered to be part of the wrath of the Judea Christian god, all the way to being considered a deity in their own rights. And in even more recent history the insect is being considered a tangible food alternative to an ever-growing human population. However, considering the reality that insect play in human society we should consider all the reasons why the famous author Franz Kafka depicted one of his more well-known characters is transformed into an insect. To begin, the main character, Gregor Samsa, is a seemingly ordinary individual who works as a traveling salesman to both provide for his family and pay of his father debt. Yet after a terrible night of sleep he is inexplicable transformed in to a gigantic insect with multiple arms a carapace and the ability to climb in every direction. To demonstrate, “They would only have to push their arms under the dome of his back, peel him away from the bed, bend down with the load and then be patient and careful as he swung over onto the floor, where, hopefully the little legs would find a use (Kafka 9).” From this point on his life spiral quickly downward from his sister losing her hope in his return, to all the way down to being disowned from the rest of his family. In the end, Gregor dies depressed and alone due all the neglect he has endured. Finally, to understand why Kafka chose of all creatures the insect to be the star of the novel; we should look at how societies have viewed the insect, the American society’s view of the insect as opposed to other cultures, and the implications these views have on how we can perceive Gregor’s transformation.

*How other nations have come to view insects*

 To start, insects play a very prominent role in the environment. Take for instance the simple honey bee, they provide us with honey and wax. And honey alone is the world’s only non-perishable food item, in fact Egyptologist have discovered ceramic jar filled with honey that is still edible to this day, stored away in the tombs of the ancient pharaohs of Egypt. Despite this, the service that is most important to us and the world in general is, the purpose bees serve in pollinating plants and trees. If bees where suddenly vanish from the world most fauna in the world would fall prey to a similar fate. Unfortunately, in recent decades this scary notion has actually become somewhat of a reality. For some unknown reason bee colonies are suffering from a startling disease called—colony collapse disorder (CCD), many liken this disease to HIV in humans but on a much grandeur scale. For instance, “Moore and Kosurt also reported CCD has been repeatedly referred to as insect AIDS in the media, comparing the collapse of the honeybees’ immune system caused by CCD to the collapse of the humans’ immune system caused by human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) (Shock).” What even worse that unlike HIV in humans, CCD is transmitted throughout the entire colony. Fortunately, a great deal of apiarist all over the world have fought against companies like Monsanto, which have been linked to CCD through the creation of “Round-up” and genetically modified organisms (GMO), ensuring the survival of the bee.

Likewise, in many parts of Africa termites are viewed as paranormal or of religious dogma. Ranging from the mild idea that the termites represent the ancestors all the way down to absurd notion that they are malicious demons or witches. To illustrate, “In Mali when somebody is possessed by the devil a traditional string instrument played like a violin is used near the termite mound and offerings, (like kola nuts or sugar) need to be made (van Huis 7).” However, they are not only represented in this fashion also take part in tales or folklores for each passing generation. In fact, there is a similar tale to “The lion and the mouse” but instead of a majestic lion there is a hyena and the mouse is replaced by the termite. Which liberates the hyena by eating through the rope that ensnared to hyena.

Next, we have the now quite famous Sateré-Mawé Indians from the Brazilian Amazon and the ritual they uphold each year. Which is none other than a coming of age ceremony for the young men of the clan. Each year the elders of the clan scrounge the forest for the Paraponera clavata, also known as the bullet ant, which is then sewn into palm mittens and placed on the young male’s hands. After what seems to be an eternity they are removed and they are allowed time to recover before completing the same ritual another two dozen times during the year. Furthermore, all this is done to just so that they can take a place in the hierarchy of male dominance in their society. For example, “young males participating in the ritual don these ceremonial gloves on both hands. To become eligible for marriage and leadership roles within their community, they must show no emotion while enduring the stings of dozens of ants woven into each glove (Bosmia).”

Lastly, since the time of the first emperor of China, Qin Shi Huang, and the infamous silk road in China the greatest treasure to come out of there was the fabled silk and the silkworm. To steal one of the silk worms without the permission of the Emperor was punishable by death. Up until the 15th century the method for harvesting silk from the worm was a well-guarded secret in china, that is until two monks traveling to Europe described the methods used. Moreover, during all this time the wearing of silk was only prohibited towards the ruling class. To exemplify, “Silk, a luxury item that was in great demand in the Roman Empire. Silk is produced by insects, more precisely the worms of silk moths, when they spin themselves into a cocoon from which they hatch as a moth (Hildebrandt 11).” This illustrates that the Chinese knew the importance of insects from an early age since it was their proverbial “Cash Cow.” To squander such an innocent species simply because it disgusted them would have been foolish.

*America’s Views against those of other nations*

 Now we take look at how American society has separated themselves from cultures that have evolved with the aid of insects. In the founding of this nation we must not forget that the original settlers where very religious and adhered to the Christian faith. But in the bible, it makes note that during the exodus of the Jews from Egypt that the land was ravaged by a swarm of locust. As for American history, they have suffered a similar fate of almost biblical proportions. During the years following the American Civil War, large swarms of locust destroyed most of the farms located in the Great Plains, the heartland of the continental United States. In fact, when such natural catastrophic events occur they are referred as plagues. What happens is that when long stretches of drought affect an environment swarms of hungry grasshoppers gather and become locust. Even more interesting is that the physical appearance of the grasshopper changes from a green to a brown hue, and they also increase in size, but only during this time does this change occur. Consequently, when these insects gather they form somewhat of a hive mind and eat fields worth of grains and produce in a matter of minutes. Almost mimicking the voraciousness of the aquatic piranha except for an inclination for fauna. During the droughts of 1873 to 1877 it was recorded that the largest swarm of locust passed through the Great Plains. For example. “Enormous swarms brought devastation to areas in nine states. A single swarm in 1875 was estimated to cover over 198,000 square miles—almost twice the size of Colorado—and to contain as many as twelve trillion locusts (lee).” What’s more, the sheer amount of locust is still contained in the Guinness book of world records as the reigning champion—in the category of animal gatherings. Luckily, without much thought the farmers went on to accidentally exterminate the species of grasshopper that plagued the area (lee). This goes to show, that since the foundation of the U.S certain insect have been considered a pest and are a hindrance to the growth of the Economy.

On the up side, recently the U.S. is at the forefront of viable food items in an ever-growing population. For example, “At least two billion people worldwide regularly eat insects, according to the Food and Agricultural Organization of the United Nations. The practice is particularly common in Asia and Africa but also in Australia, Central America and South America. But the trend has only recently started in the U.S (Wallace).” Most Americans find the idea eating insect a revolting notion, but with a dwindling supply of resources, mainly land and meats, chefs are turning to the gigantic supply of the world’s most abundant species the insect. In the world, there are already billions of different types of species, so why not capitalize of the fact that if we were to add these to our diet we would hardly make a dent in the population of the species. Furthermore, the land needed to supply the vast amount of the population would be far less then say land needed for bovines. And in ironic twist if the early Americans in the great plains had seen the silver lining of the locust plagues all those fields were not lost but filled to the brim with another viable food source. It is surprising that it has taken the United States this long to catch up with the views of other nations, yet, this can be attributed to the indoctrination of the American population in the disgust of the insect.

Another good thing to come about, is the view of how insects can also shape how the future in America. Like the silk worm in the past decade researchers have found spiders silk when spun correctly has similar properties to metal. Such as, “Students at Arizona State University (ASU) are celebrating their recent success on the path to understanding what makes the fiber of spider spin—weight for weight—at least five times as strong as piano wire (Spider-silk secrets revealed).” Moreover, its surpasses the tensile strength of steel and has multiple applications such as a lightweight alternative for combat vests for soldiers. The only down side is that in order to have enough of this fiber to produce viable quantities, they would require thousands of spiders constantly spinning webs.

In the end, we can see that as the years’ progress, American’s vilification of the insect has slowly transformed into how the rest of the world see the insect. Which is to say they have finally found out that they may be pest but they can lead about to changes that would greatly advance the world. In the form of new solutions to food shortages, and construction materials along with providing protection to those that provide services to the population at the risk of their lives.

*What the Views could imply about Kafka’s decision*

First, there are many implications to why Franz Kafka decide on a bug to represent Gregor in his novel. The weakest of these is the notion that Gregor transformations was a result of a transcendence into the next plane of existence for humanity. This is related to the idea held by Hindus and Buddhist that after death we reincarnate into a number of hosts which include animals and trees. For instance, “The Hindu religion considers all life forms as sacred, and various species ranging from the tiny insect to gigantic elephant are regarded as equally sacred (Agoramoorthy 5).” In the case of Gregor this is plausible that he could have transcended but it completely negates the fact that at the end of the novel that Gregor actually dies. So how could he have transcended if he had not died at the start of the novel.

Lastly, the strongest view as to why Kafka choice an insect is that Gregor’s subconscious transformed from a metamorphic representation of himself into the physical view he had of himself. To clarify, “Dreams featuring insects have been of special interest to medical practitioners, psychotherapist, writers, and other, likely owning to the fact that invertebrates often elicit fear and avoidance responses in humans (Klein 2).” This emphasizes the fact that many people have an irrational fear of insects. Such as those who suffer from arachnophobia—the fear of spiders—and go out of their way to avoid confrontations with spiders. Even Professor Klein supports this theory in “The Metamorphosis” showing that as time progressed, Gregor’s family descended into fear and especially avoidance in terms of how they treated Gregor. By the time that Gregor has expired, he was already not eating and suffered from severe depression as a result from negligence.

To conclude, with all the variations in the views of insects it is abundantly clear why Kafka chose to make Gregor an insect. We must remember at the time that Kafka was alive Sigmund Freud had only recently proposed the ideology of the subconscious and dreams and how it affected the human psyche and interactions with each other. Even though Europe and the rest of the world, beside the Americans, regard the insect as integral part of society. There has also been a large part of the population that still fears these little insects and problems they can create for humans. And with the view that these insects also instill fear into the mind while sleeping also strengthen the notion that we will never rid ourselves from the most dominate species in the world. Therefore, it makes sense that Kafka chose to pick an insect that would cause his family to both fear and avoid all confrontation with the son they once had.

Work cited

Agoramoorthy, Govindasamy and Minna J. Hsu. "The Significance of Cows in Indian Society

 between Sacredness and Economy." *Anthropological Notebooks*, vol. 18, no. 3, Dec.

 2012, pp. 5-12.

Aung, Si and Turpin Myfany. "The Importance of Insects in Australian Aboriginal Society: A

 Dictionary Survey." *Ethnobiology Letters*, Vol 6, Iss 1, Pp 175-182 (2015), no. 1, 2015,

 p. 175

Bosmia, Anand N., et al. "Ritualistic Envenomation by Bullet Ants among the Sateré-Mawé

 Indians in the Brazilian Amazon." *Wilderness & Environmental Medicine* (Elsevier

 Science), vol. 26, no. 2, June 2015, p. 271.

Darrell A., Posey. "Ethnomethodology as an Emic Guide to Cultural Systems: The Case of the

 Insects and the Kayapó Indians of Amazonia." *Revista Brasileira De Zoologia*, Vol 1, Iss

 3, Pp 135-144 (1982), no. 3, 1982, p. 135.

Engel, Michael S. "Primer: Insect Evolution." *Current Biology*, vol. 25, 05 Oct. 2015, pp. R868-

 R872.

Hamerman, Eric J. "Cooking and Disgust Sensitivity Influence Preference for Attending Insect-

 Based Food Events." *Appetite*, vol. 96, 01 Jan. 2016, pp. 319-326.

Hildebrandt, Berit. *Silk: Trade & Exchange along the Silk Roads between Rome and China in*

 *Antiquity*. Oxbow Books, 2016. Ancient Textiles Series.

Klein, Barrett A. "The Curious Connection between Insects and Dreams." *Insects* (2075-4450),

 vol. 3, no. 1, Mar. 2012, pp. 1-17.

Lee, Sally. "The GREAT GRASSHOPPER Mystery." *Cricket*, vol. 44, no. 7, Apr. 2017, p. 17.

Maria Avany, Bezerra-Gusmão, et al. "Perceptions of Termites in Urban Areas of Semiarid

 Brazil." *Biotemas*, Vol 27, Iss 4, Pp 117-127 (2014), no. 4, 2014, p. 117.

"Spider-Silk Secrets Revealed." *Science Scope*, vol. 36, no. 7, Mar. 2013, pp. 8-10.

Shock, Amber. "Honeybees: CCD and Why Action Must Be Taken." *Kentucky English Bulletin*,

 vol. 65, no. 1, Fall2015, pp. 70-75.

van Huis, Arnold. "Cultural Significance of Termites in Sub-Saharan Africa." *Journal of*

 *Ethnobiology & Ethnomedicine*, vol. 13, 26 Jan. 2017, pp. 1-12.

WALLACE, HANNAH. "Are Crickets the New Quinoa?" *Oregon Business Magazine*, vol. 39,

 no. 2, Mar. 2016, pp. 10-11.