A year or two ago, a fellow graduate student told me about a fabled overseas event called ICFA. “It’s a great conference,” she said, “there is one pool for humans and another one for alligators.” What she left unsaid is that you do not actually get to mingle with the alligators. Despite this major disappointment, the conference proved enjoyable for a young scholar interested in posthuman perspectives, posthumanist thought, and evolutionary theories in fiction. It was quite easy to dive through the program equipped with these filters, and emerge covered in enticing ideas. As the ideas are absorbed, they may induce quite interesting metamorphoses – perhaps allowing for tighter entanglements with the nonhuman in the future.

The Thirty-Sixth International Conference on the Fantastic in the Arts (a.k.a. ICFA 36) took place in Orlando, Florida, on March 18-22, 2015. The event brought together some 500 scholars, authors and editors of more than 20 different nationalities.

This year’s theme, “The Scientific Imagination,” was thoroughly examined in the keynote talks by Guests of Honor James Morrow and Joan Slonczewski, and Guest Scholar Colin Milburn. Already in the opening panel, chaired by Gary K. Wolfe, they touched upon a variety of topics that would soon prove central to the conference as a whole – the most central, perhaps, being the relation of science and imagination as complementary rather than oppository modes of inquiry. “Science emerged from magic,” Morrow pointed out – listing alchemy, herbal medicine, and the psychological influence practiced by all witches and shamans as examples of early scientific thinking. Scientific thinking requires a certain amount of imagination, the ability to speculate on the potential.

On the other hand, Morrow proposed that the modern scientific method is based on restraining the imaginative aspect of thinking – it has to rely on only objective (that is, multiperspectival) observations of phenomena. A true empirical scientist, according to Morrow, is one who, upon seeing a white sheep on a meadow, says not “I see a white animal” but “I see an animal that is white on one side.” Speculation and extrapolation – including that of the science-fictional kind – enter the picture when one wants to know about the “dark side of the sheep.” Based on observations about earlier sheep, we can infer that it is likely that the other side of the sheep is white too. But only likely – it can be something else entirely. We have to keep checking.

Joan Slonczewski, being a biologist as well as a fiction author, raised the issue of the nonhuman. Natural-scientific research keeps telling humanity that “the universe is not about us”. This might also be what takes at least some science fiction apart from the more humanist mainstream fiction – it usually busies itself with something other than human-human relationships.

Depending on the perspective, humans can be seen as invasive animals, a geological force, or even a vector for microbial evolution. Provoking less discussion than one would expect, Slonczewski asserted that “microbes invented multicellular beings to have a vehicle for themselves.” Among the remarkably nonanthropocentric panelists, this was met with appreciative
nodding. Eventually, they did veer back to the realization that they are inescapably tackling human issues too – most centrally, the issue of epistemology. All panelists agreed on the cognitive value of the fantastic and the imaginative. The panel’s approach was best summed, perhaps, by Colin Milburn who presented speculative fiction as “another mode for engaging with scientific knowledge.”

Two days later Morrow and Slonczewski got together in another panel, along with author Kathleen Ann Goonan and moderator Donald E. Morse, to discuss the influence of Charles Darwin’s ideas in fiction. The course of discussion took them from H. G. Wells’ *The Time Machine* (1895) to gene therapy in less than two hours. Morse began with an introduction to *The Time Machine*, demonstrating that the particular form of sociological speculation in the novel – the evolution of humans into two distinctively different subgroups, the Morlocks and the Eloi – would not have been possible without the idea of natural selection, introduced by Darwin in *On the Origin of Species* in 1859.

Starting with Wells, fiction writers have applied evolutionary theory in their visions about human history and human future. Despite the tendency of both fiction and popular rhetorics of science to present evolution as progressive, not all evolutionary narratives have been utopian. James Morrow took up Kurt Vonnegut’s *Galápagos* (1985) as an example of a thoroughly antihumanist take on evolution, and an influential predecessor of his own novel *Galápagos Regained* (2015). The ethereal narrator of Vonnegut’s satiric novel reports a million years after a catastrophe induced by “the oversized brain” has killed off most of the human race. This future features the evolved descendants of humanity – seal-like, small-brained and happy, living on fish and seaweed in the Galápagos Islands. There is no war and no torture, for “how could you even capture somebody you wanted to torture with just your flippers and your mouth” (*Galápagos*, p. 118). As Slonczewski commented, in the USA of 1985 this might have seemed like a future to hope for. “In 1985, we had a headless president, and we were 10 minutes from destruction”. Happily for all, said Slonczewski, Reagan did learn from watching science-fictional disaster films – and finally established negotiations with the Russians.

Kathleen Ann Goonan proposed that “the evolutionary paradigm shift has not really happened”, as human cultures fail to grasp the concept of change. Goonan made the distinction between “change towards the better,” as in most models of technological or cultural progress, and the more Darwinian “constant change.” Goonan offered up Octavia E. Butler’s “God is Change” (from *Parable of the Sower*, 1993) as a suitable paradigm for understanding evolutionary change. In her Nanotech series as well as the more recent *In War Times* (2007) and *This Shared Dream* (2011), Goonan has explored both the biotechnological and the societal aspects inherent in the idea of evolution.

From the microbiologist perspective of Joan Slonczewski, evolutionary change is always also an interspecies phenomenon – and us such, pertaining mostly to life indifferent to human cultures. Organisms have swapped genes ever since the primordial soup, and still do. This fluidity between genomes renders the concept of “species” unuseful for microbiologists, and according to Slonczewski, it should do so for other biologists too. As a thought experiment, she proposed a redrawing of definitive boundaries: what if we thought of the Human, for example, not in terms of its genome but in terms of its pan-genome – the full complement of genes in all strains of the species, also counting for the genes in the microbiota? Slonczewski takes up the potential functions of microbes in her novels *The Children Star* (1998), *Brain Plague* (2000), and *The Highest Frontier* (2011).

Taking the discussion back to the historical perspective, James Morrow posited that the idea of evolution will never become naturalized in the same way as, say, the heliocentric worldview. For Morrow, this is because the concept of evolutionary change is too far from the subjective experience of a human individual. In their lives, humans perceive both stability of identities and goal-oriented
progression, but not the event of evolutionary change on a larger time scale. This is reflected in the ways the idea of evolution is translated into cultural practices, such as in the transhumanist agenda of positive intentional change. When asked about the potential of engineered evolution, Slonczewski replied that “we are already doing it.” Medicinal practices such as organ transplantation and genetic therapy will continue to change the ways humans live and reproduce.

Compared to the academic discussions on posthumanist thought going on in European conventions, the American take on “posthuman” and “posthumanism” appears to be more grounded in political and medicinal practices and debates. Scholars at ICFA also took up current television dramas: Sherryl Vint studied IVF practices and the diverse range of clone personas in Orphan Black, Stina Attebery discussed victimisation of indigenous characters in Helix. The Walking Dead and The Hunger Games were analysed in several panels, and the Whedonverse filled two panels all by itself. The recent proliferation of zombie figures in popular culture was perhaps best summarized by Dale Knickerbocker’s notion of the zombie as “the biological antihumanist posthuman” and “the antichild of critical posthumanism.” According to Knickerbocker, the zombie signifies both the domination of instrumental reason in the modern era and its failure to produce well-being: the ultimate result of the increasing instrumentalisation of the human has been dehumanisation.

In a panel on genetic experimentation in contemporary science fiction literature, biotechnological bodies were considered both in their virulence and their sublimity. Alexandria S. Gray considered the bioengineered cheshire cats in Paolo Bagicalupi’s The Windup Girl (2009), concluding that their superior adaptability mocks natural evolution and produces a space she calls “estranged Eden” – a biotechnological garden beyond human control. Pelin Kumbet compared Kazuo Ishiguro’s Never Let Me Go (2005) with first person accounts from organ transplant recipients. Kumbet’s reading brought out the complex significance of organs: in both Ishiguro’s novel and the experiential accounts, organs were perceived to contain the essence of the donor, thereby rendering the transplantation procedure a ritualistic event that transforms not only the body, but also the soul of the recipient. Gerry Canavan’s reading of Kim Stanley Robinson’s 2312 (2012) approached the malleability of human bodies within a broader sociohistorical framework. The transhumanist society of Robinson’s novel features posthuman subjects with enhanced cognition and fluid gender identities, thereby connecting to the neoromantic notion of a “technological sublime”.

As ICFA is a setting where one does not need to begin one’s presentation by justifying the relevance of the fantastic, many of the presentations also discussed the shortcomings of particular SF/F works and the limitations of genres in general. Panels with titles such as “State of the Genre: Violence and Nihilism in Modern Fantasy” and “Tropes that Need to Die: Fantasy Clichés and Stereotypes” vented out some of the frustration critical readers feel when confronted with ethically irresponsible, unimaginative, and escapist fiction. This frustration was the driving force behind some of the most critical presentations in the conference, such as Jason Embry’s analysis of the representation of science in Ben Marcus’ The Flame Alphabet (2012) and Kenneth Calhoun’s Black Moon (2014); and Tony Vinci’s posthumanist reading of Lev Grossman’s The Magicians (2009). Embry claimed that due to the abundance of incapable and impotent scientist characters that fail before viral epidemics and environmental catastrophies, “the mainstream population does not know it can trust science”.

Vinci, in due symmetry, claimed that “delusion, instead of illumination, has become the goal of fantasy.” Taking Grossman’s novel as an example, he called for fantastic fiction that resists the escapist reading strategy. The Magicians features magical transformations into nonhuman animals, and, according to Vinci, produces the fictional experience of those animals in a way that does not reduce them to metaphors of human mental faculties. The nonhuman lifeworlds therefore dislodge the presupposed status of human subjectivity, rendering the human reader vulnerable to nonhuman others. This literary effect is not just a matter of detached contemplation, but of bodily experience.
Posthumanist approaches to literature could well benefit from considering Vinci’s thought-provoking motto: “books can hurt bodies, and they should.”

As the experiences converge, a conviction solidifies: that the potential of the scientific imagination in fantastic fiction lies not only in speculation about human societies and subjectivities, but also in the way fiction can bring us within a closer proximity to the nonhuman world – the ever-evasive dark side of the sheep. Or alligator.

ICFA 37 (March 16-20, 2016) will take upon the theme “Wonder Tales,” inviting proposals on fairy tale and myth as well as on the invocation of “sense of wonder” in fantastic texts. See www.iafa.org