Pulled Up Short with Stanton Wortham

What if we are not alone in the universe?

Featuring Andrea Vicini with Stanton Wortham (host) and Kristina Wirtz (commentator)

Original Air Date: November 15, 2021

Stanton Wortham 0:08
Hi, everyone. Thanks for joining us for another episode of Pulled Up Short. We appreciate you being with us. Today we're excited to have Father Andrea Vicini, who is going to speak with us about extraterrestrial life and its implications. We also have Christina Wirtz from Western Michigan University. We're grateful to our guests for being here today. So Father Andrea could you tell us what it is that you have in mind about extraterrestrial life pulling us up short?

Andrea Vicini 0:32
As human beings we might think we are alone in the universe and that no other form of life exists anywhere else. Hence, what we assume is that the conditions that made possible the beginning of life, at least 3.5 billion years ago–which is, the age of the oldest rocks with fossil evidence of life on earth–were unique.

But this is only one approach. Others affirm the opposite. For them, the conditions that made possible the beginning of biological life are not unique. They can be replicated and they might have allowed the beginning of biological life in other parts of the universe, on other planets. We have not yet the ability to identify these locations, but the continuing progress of space exploration will make it possible. While we explore the universe, searching for biological life, we might get a sense about how life started on Earth and insights on how life could have begun elsewhere. Hence, with scientific method and rigor, a specific scientific discipline, called astrobiology, investigates the origins of life on Earth to gain a better grasp of the multiple and complex factors and variables that were needed for biological life to begin. This study might lead to the discovery of other forms of consciousness – what could be called Visitors or Others in the universe.

What I hope to discuss today is the vivid disruption that could be associated with the simple thought that life might be present elsewhere in the universe. If there are other forms of life beyond earth, this will force us to reflect on our own nature and on our way of life in potentially productive ways.

Stanton Wortham 2:32
That's very interesting. In some ways, it really would pull us up short to discover extraterrestrial life. It would be quite a shock. On the other hand, we've all seen lots of movies and read lots of books about

aliens and contact with aliens. It's been a very common theme in popular culture. So could you tell us a bit more about how discovering other forms of life, other forms of consciousness would in fact pull us up short, despite all the attention that's been paid to it so far?

Andrea Vicini 3:01
The discovery of intelligent life could displace how we–human beings–understand our place in the cosmos, in the history of the universe, and even in Christianity. Since its beginning, in its ongoing longing for knowledge and discovery, humankind experienced at least three major displacements. We could say that we were pulled up short in three major ways.

For centuries we thought that we were the center of the universe. This gave us security. Such a physical preeminence was associated with pride. We were proud of our place in the cosmos. With our rationality, we thought we were the best creatures, at the summit of any earthly hierarchy.

However, the study of stars and planets challenged our assumptions of grandeur. The Prussian Nicolaus Copernicus (1473-1543)–a Renaissance polymath, active as a mathematician and astronomer–formulated a model of the universe that placed the Sun rather than Earth at the center of the Solar system (heliocentric model). Hence, the Copernican revolution was the paradigm shift from the previous Ptolemaic model, proposed by Claudius Ptolemy (or Ptolemaeus), who lived in Egypt the second century of the Christian era. For fifteen centuries, the Ptolemaic model described the cosmos as having the Earth stationary at the center of the universe, but Copernicus displaced such centrality. While many resisted such displacement, others embraced it. Our value did not depend on our place in the universe.

But the displacements were not finished. After the first displacement–i.e., the Copernican revolution–a second displacement occurred. In the nineteenth century, the English naturalist, geologist, and biologist Charles Robert Darwin (1809-1882) studied multiple biological species in their own habitats and proposed that all species of life descended over time from common ancestors. Humankind was displaced again. This time regarding its own origin and identity. As in the case of the Copernican revolution, the Darwinian evolution encountered strenuous resistance and rejection. However, it is now widely accepted and considered a foundational concept in science.

Finally, some scientists wonder whether the discovery of life elsewhere in the universe could mean the end of Christianity. For these scientists, the presumption is that any belief in God the creator and in Jesus as the savior of humankind, as God incarnated on Earth, would be dismissed. We could be pulled up short in our faith–if we associated our faith to an exclusive relationship between God and humankind. However, theologians reply that we could be pulled up short in a very positive way, by discovering that our God could be creator in many more ways that we could ever imagine and that Jesus could be savior of other forms of consciousness and civilizations in the universe.

Whether we reflect on the beginning of life in the universe or we wonder whether intelligent life might exist somewhere in space, human beings and believers could experience a third displacement, when the discovery of biological life and contact with intelligent beings will challenge our cosmos consciousness and our place in the universe.

Stanton Wortham 7:25
That's a very useful analogy to help me think this through with Copernicus and Darwin. It's clear that at both of those moments, ultimately, people all around the world had to confront the fact that we weren't as central as we thought that we were. We weren't the center of the universe, not even the center of the solar system, and we weren't the pinnacle of creation, but we had evolved from other creatures. At the time, as you say, it's a little hard for us to imagine now but those were dramatic reorientations of how humans had to think of themselves. So that's useful to imagine that the discovery of intelligent life elsewhere in the universe would force us to have a similar sort of decentering, a similar sort of disorientation. As I think about that, I'm trying to wrap my head around what the consequences would be. Can you tell us a bit more about the implications of such a discovery of extraterrestrial intelligence? How would we react to that one?

Andrea Vicini 8:26
I agree with you that we have a hard time imagining the sense of loss of place and importance that our ancestors experienced in the first and second displacement, dealing with the Copernican revolution and with Darwinian evolution. They felt discarded and deprived. If I can use a couple of images, they felt lost, like when one loses one's bearings and does not know anymore where one is and where to go. With Copernicus, humankind lost a sense of its home as central. With Darwin, we lost our identity at the summit of all the species. But in each case now we can say that both the Copernican revolution and the Darwinian evolution gave us a new home and a new identity, grounded in a better understanding of our reality and our being. In both cases humankind experienced a new freedom: the freedom of a new home and of a new identity. Something similar could happen to believers. We would discover that maybe we have sisters and brothers we were not aware of. In his most recent document–the 2020 encyclical letter called Fratelli Tutti on fraternity and social friendship, Pope Francis invites the whole of humankind to rediscover our fraternity, our sisterhood and brotherhood. A cosmic fraternity could be unexpected, but so much welcome. To be pulled up short is not only a loss. It can imply unexpected gains and new horizons.

Because of the ongoing study and exploration of the universe, we have evidence that planets exist and that might sustain life. But this does not mean that we have definitive evidence of extra-terrestrial life at this point. However, some disagree. They claim that concrete data from researchers, social scientists, and other credible witnesses stress that contacts with intelligent life from other places in the cosmos already occurred. These interactions have been described by focusing on objects (i.e., Unidentified Flying Objects, UFOs) or diverse forms of intelligence: extraterrestrial (ETI), interdimensional (IDI) or terrestrial.

Regarding the search for biological life in the universe, recently scientists discovered a Neptune-like exoplanet located 90 light-years from Earth (called TOI-1231 b) with an intriguing atmosphere that could contain water clouds. Exoplanets are planets located outside of our solar system. The discovery of the planet was detailed in a new study that will be published in a future issue of The Astronomical Journal.

To give another example, in 2016, astronomers found a potentially habitable planet called Proxima b around the star Proxima Centauri, which is only 4.2 light-years from Earth and the closest star to our sun. Now, researchers traced a second signal they believe belongs to a super-Earth orbiting the same star, increasing the intrigue of this neighboring planetary system and its potential of having the conditions that make life possible.

These examples demonstrate that we already know that it could be possible we are not alone in the cosmos. There are some ten million Earth-like planets in our Milky Way Galaxy alone and the discovery of these Earth-like planets continues apace.

Stanton Wortham 12:37
So in some ways, we don't have to speculate about how humans would react to the idea of extraterrestrial intelligent life. You're saying that we already have a lot of people who believe that it's quite likely to exists out there. Can we infer something from people's existing reactions to these reports and possibilities how it is that humans will respond or how we will be pulled up short or how will reimagine ourselves, if in fact there is extraterrestrial life?

Andrea Vicini 13:08
We could experience being pulled up short in ways that we find problematic if we assume that researching about the possibility of life in the cosmos is threatening us, our way of life, and even our faith. At the same time, we could be pulled up short in positive ways if the search for biological life and for forms of intelligent life is highlighting our ability to be open to what is new, trusting our abilities to address whatever we will discover.

Currently, both the academy and civil society are better disposed toward inquiries concerning life forms in the universe. I can mention one example. At Harvard University, the astrophysicist Avi Loeb produced pioneering and provocative research on black holes, gamma-ray bursts, and the early universe. Recently, he published the book Extraterrestrial: The First Sign of Intelligent Life beyond Earth to discuss the possibility of extraterrestrial intelligence visiting us.

However, resistance and skepticism continue, often strengthened by attempts of the military and secret services–for example in the U.S. and the U.K.–to cover up or falsify what occurred. What is uncertain, unknown, and complex scares and we want to dismiss it by hiding it.

A recent counterexample is worth mentioning. The Defense Department collected reports of unexplained events for more than 13 years as part of a program, within the Pentagon, called Advanced Aerospace Threat Identification. The program began in 2007 and analyzed radar data, video footage, and accounts provided by the Navy pilots and senior officers.

The U.S. Navy officially published previously released videos showing unexplained objects. Moreover, a recent U.S. Navy Report determined that a vast majority of more than 120 incidents witnessed by U.S. Navy pilots over the past two decades did not originate from any American military or other advanced U.S. government technology. While the Report does not find evidence of alien technology in the flying objects detected, it cannot rule it out either. Moreover, the Report concedes that much about the observed phenomena remains difficult to explain, including their acceleration, as well as ability to change direction and submerge.

We can let ourselves be pulled up short even by what we cannot yet explain. This attitude will allow us to find answers to our questions.

Stanton Wortham 16:17
I see. So you're recommending a particular kind of attitude that we might take toward extraterrestrial life. In the cases of Copernicus and Darwin, they required dramatical reimaginings of what it is to be human, but we still remain quite complacent in our notion that we are allowed to do whatever we want with the planet and with other species. I can see how your notion that the discovery of extraterrestrial life would force us to deal with an even more radical reimagining of what we are because we'd have to engage with something new that might threaten our position as empowered to do whatever we want.

It sounds as if, through your last example, there you're describing a way to move forward, an attitude that can be more generative or positive. So as opposed to reacting to the displacement and the shock that the discovery of extraterrestrial intelligent life would bring with just resistance or skepticism, you're saying we might take a stance toward it that could be positive. It could be salutary. It could be something that would benefit our sense of ourselves and our capacity to move forward productively. Can you talk a little more about that? How could we prepare ourselves for these sorts of encounters in a positive productive way?

Andrea Vicini 17:38
Literature can give us some ways to answer. A few years ago, the American paleoanthropologist and novelist Mary Doria Russell published two award-winning science-fiction novels: The Sparrow (1996) and its sequel Children of God (1998). Set in the 21st century, a few decades from now, the novels center on a charismatic Jesuit priest and talented linguist, Emilio Sandoz, who–in response to a radio signal from the depths of space–leads a scientific mission to make first contact with an extraterrestrial culture and society. Hence, the books explore the religious and psychological implications of first contact with aliens. They invite us to think how we prepare ourselves for possible encounters and they

show how these encounters could change how humankind perceives itself here and now, and how we live together.

If we consider our past history, sadly we realize that humankind engaged in very problematic ways in encounters with those who were considered different. Most were interested in colonizing, conquering, and oppressing violently. Together with the ordeal of colonization, racism tragically created incredible suffering. Learning from our past, encountering who is different should not lead us to recreate the social forms of life (e.g., racism, violence, and oppression) that we experience now on Earth. We should be able to consider all living beings–on Earth and elsewhere in the universe–as members of a relational cosmic community. According to this relational approach, contact could be congenial rather than confrontational. Being pulled up short, we could become more human.

Moreover, thinking about discovering and encountering what and who is Other could lead humankind to examine itself, change our consciousness regarding who we are and who these Others are, and change our conduct. Encountering and experiencing the Other should help us to discover more our true self. By analogy, we discover who we are when we live in another country, speak another language, and experience a new culture.

Stanton Wortham 20:25
That's helpful. I wanted to note that when we first spoke about this, you mentioned those novels to me - the Mary Doria Russell novels - and I'm halfway through the second one. It's a great read. It's really wonderful. So I appreciate you sharing them with me, and I recommend them to everyone. You've articulated how humans, maybe particularly European civilization humans, but also others around the globe do not have a particularly good history of how they treat beings and other people that they encounter for the first time. There's often stereotyping, racism, exploitation, and other cruelty and violence. Certainly, if we do discover intelligent life elsewhere, it would be wonderful if it could give us an opportunity to reorient our ways of relating to others and not do it in that sort of stereotyping, racist, and violent manner. You seem to have a vision here of how an encounter with others could push us into a better self, a better orientation, a kind of humanity that would be an advance from how we've typically related to others. Could you tell us a little bit more about that? How could we respond in these more productive ethical ways that you're hoping for?

Andrea Vicini 21:44
This time, I can look at the examples in the discourse that we find in theological reflection, particularly ethical reflection in theology. At Boston University, the emeritus professor John Hart published a trilogy of volumes, titled "Cosmos contact: Close encounters of the other kind," to reflect on the existence of other forms of consciousness (called Visitors or Others) in the universe and how such an acknowledgment and discovery will have ethical implications. The titles are evocative of his quest. First, *Cosmic Commons: Spirit, Science, and Space* (2013); second, *Encountering ETI: Aliens in Avatar and the Americas* (2014). Finally, *Third Displacement: Cosmobiology, Cosmolocality, Cosmosocioecology* (2020).

As a rigorous scholar of Christian ethics, socioecological ethicist, and enquiring scholar-activist, John Hart relies on personal experiences as well as on the critical analysis and assessment of credible and tested witness accounts. In his most recent book, he revisits the insightful contributions and approaches of significant authors and scholars of our past: from Maximus Confessor (580-662) to Nicholas of Cusa (1401-1464) and Francis of Assisi (1181-1226) as well as more recent theologians and scientists to examine "concrete data from scientists, social scientists and other credible witnesses" (11) integrated by important contributions offered by (American) Indian spirituality and enriched by the author's prolonged engagement with Indian leaders and communities.

Such inquiry leads Hart to confirm that "Contact between human beings and intelligent beings from other cosmos places has occurred" (5). As a consequence, humankind should strive to create better conditions for flourishing, both for human beings and the whole planet. The Earth and the cosmos are not gifts that can be discarded–as we do in the case of gifts that we receive and that we do not appreciate. The Earth and the cosmos are a trust. Both the Earth and the cosmos are entrusted to humankind. Hence, human beings are trustees with responsibility to protect, and caring for the Earth is an urgent responsibility. With the words of John Hart, we could say that our ethical goal is to foster "a relational consciousness to guide relational conduct in a relational Earth community integrated within a relational cosmos community" (226). Pulled up short by the possibility of discovering intelligent life in the cosmos, and maybe even Others already visiting us, could be beneficial for humankind and could also benefit the future generations by entrusting to them a planet with better living conditions.

Stanton Wortham 25:56
That's great. Thank you very much. It certainly pulls me up short to think about these encounters with extraterrestrial life and how that would give us an opportunity to reimagine what we are as humans and hopefully take a more positive, productive direction. So I'd like to invite in Kristina Wirtz to join the conversation at this point. Kristina, could you come in and ask a question or two?

Kristina Wirtz 26:18
Yeah, thank you so much for inviting me to take part in this fascinating conversation. Professor Vicini, I'm intrigued by your proposition that the effect of encountering other sentient life in the universe beyond life on earth could produce a sense of cosmic community. I have some questions, because I'd like to understand how cosmic community could be the response that arises in the situation you're describing of extreme displacement, akin to the Copernican and Darwinian revolutions. One question I have: I was struck by your choice of Professor Hart's words, "visitors and others," to describe sentient life from beyond Earth. I wondered if you could talk more about what about these terms who find productive?

Andrea Vicini 27:13

First, I would say, it seems to me that when we experience ordeals on on the large scale (for example, consequences of an earthquake or with tsunami; natural events or even social events that are tragic), somehow we can, in those very difficult situations, in those crises, experience a level of humanity that was not so evident earlier on in more ordinary situations. I was thinking, for example, during the early months of the COVID pandemic. Globally, how many examples of solidarity could be highlighted? People caring for their elderly neighbors who could not find ways to get the food that they needed or get the human connection that they were missing? So somehow, challenging situations can help us to show our humanity in ways that are unexpected and surprising.

Of course, we should be able to express our humanity, not only in the situation of crisis but in ordinary times. This happens, but the possibility of encountering who is radically different from us or even simply discovering that life is present elsewhere in the universe, could help us to re-appreciate, rediscover and embrace anew our humanity and the beauty of the relationship we can experience on Earth. For this reason, it seems to me that both ways of defining who is different - "visitor," to highlight the possibility of welcoming, hospitality, and the constructive and enriching encounter, or "other," to indicate that there is difference, but not as radical as we could imagine - may be other ways to spiritually, intellectually, relationally, and socially think about how we can prepare ourselves to encounter who is not like us.

Kristina Wirtz 29:45
That's interesting. Thinking about what you've said about previous great displacements and putting this possibility in as the possible next great displacement, I was struck that you said that the Copernican revolution could be described as forcing a change in a sense of place and the Darwinian revolution forcing a change in the sense of identity. I guess I understand what you're describing for this next great displacement as perhaps forcing a change in our sense of relation and connection. A key part of relation is recognition, and I often wonder whether we could even recognize nonhuman sentience. After all, even on Earth, there's so much we can barely grasp about our fellow terrestrial beings.

I think about philosopher Thomas Nagel famously asking, "What is it like to be a bat?" which is, in some ways, a question about perspective and empathy. I think about ecologist Suzanne Simard arguing that trees and fungi in a forest communicate and build community in ways that we can scarcely imagine and certainly don't understand very well. So we have no idea, really only speculation, about the nature of extraterrestrial forms of life. I think about writer Douglas Adams joking about an intelligent shade of the color blue. I have a question about how you think Christianity and Christian notions of God might be impacted by the discovery of sentience beyond humanity, especially given a notion of humans created in the image of God? If there is this notion of a cosmos with other sentience, how do you think that might impact even the very notion of Christian faith?

Andrea Vicini 32:04
Recent scholarship in the field of theological ethics highlights what you mentioned. What allows us to be ourselves and be ethical is the ability to recognize the other and being recognized by someone else.

They further develop their emphasis on recognition, highlighting how vulnerability is the outcome. There is an increased vulnerability when we recognize or we are not recognized, and somehow the encounter with the other places us in terms of our own identity, in a situation where we experience greater vulnerability. For the Christian tradition, this increased vulnerability is not a negative dimension or outcome, but creates the possibility for a greater solidarity, for mercy, for compassion, for care, and for love. Somehow, we can find within the history of humankind, there are traces of the possibility of being optimistic toward the encounter with what is radically different, even when we are aware that this will expand our consciousness of our own vulnerability.

In terms of consequences for Christianity and the understanding of us as created in the image of God, recognizing that the divine, our God, might be the creator of other ways in which creatures are somehow expands this understanding of "created in the image of God," introducing multiple ways of experiencing God present in what is there - from the plants, to other forms of intelligence, from what we encounter on earth, to what might exist elsewhere. We could say that we discover a God who is open to the possibility of multiple ways in which the divine can be experienced. From my point of view, this expands further the understanding of the Creator and as some theologians have said, maybe Jesus is not only the savior of humankind, but the Savior of other creatures in ways that we do not know. So what we consider central to the experience of Christianity, the Incarnation, could have different ways of being experienced when we think about other beings, other forms of intelligence, other forms of consciousness that we have not encountered yet.

Kristina Wirtz 35:37
That's interesting. I have one more question for you. When you mentioned vulnerability and the ways in which vulnerability can be an opening, as well as an experience of threat, I wonder if you've thought about the ways in which it might matter whether it is humans who discover life elsewhere (for example, on one of the ongoing Mars missions or the radio telescope work that continues) or whether it would matter that it's extraterrestrial life that we find out, in fact, has discovered us.

Andrea Vicini 36:18
One way in which I reflect on these interactions is to try to avoid ways in which we are bringing biological life where we are exploring. For example, NASA is very attentive to avoid any possibility of bringing forms of life to Mars or wherever we go, so that we are not polluting the other environment. In the same way, we are very careful to not bring on Earth what is unknown, so polluting Earth. So in a way, we are trying to be as attentive as possible, to really encounter the possibility of life if life exists, where it is. So the logic of protecting, the logic of avoiding anything that might compromise what is there is one way in which we are reflecting on these interactions, on these new ways of discovering and exploring. We do not know exactly how we are perceived. What we see in the media, what we see in movies is a dominant fear of the ways in which we might become prey or attacked. We project the fears that we have that the other is against us. Hopefully, there are also more positive ways of thinking about interacting with the other. History tells us that both ways are realistic and possible - there are ways in which the encounters are violent and ways in which the encounters are enriching. Maybe we can hope

that we will be able to find ways to visit without colonizing and being visited without being attacked. So that if there is a future in which there will be more explicit encounters, that would be to the benefit of both the extraterrestrial forms of intelligence and life and humankind.

Stanton Wortham 39:11
Well, thank you very much. This was very engaging. So thanks to Father Andrea Vicini. Thanks to Professor Kristina Wirtz. We really appreciate you being with us and engaging in this conversation.

Andrea Vicini 39:21
Thank you both. It's been a great opportunity to reflect together on things that seem to go beyond our ability to grasp what's happening.

Kristina Wirtz 39:32
Thank you very much.

Stanton Wortham 39:34
Thanks for joining us for this episode of Pulled Up Short. We hope that you enjoyed it. Next week, we'll have Matt Delsesto and colleagues talking about what goes on inside prisons. We tend to think of prisons as separate from the rest of society. But in fact, there are many interconnections. We're going to talk about the Inside Out program, which involves educational opportunities that bring together other college students and incarcerated people. We're going to reflect on how this boundary between inside and outside prisons is a lot more permeable than we typically think. Hope you can join us next week for that. Please subscribe and check out the website PulledUpShort.org