Dan Seed ([00:00](https://www.rev.com/transcript-editor/shared/MvctMcpDWLw2OSuVxKkB-M4NS1RkjuMW7hIA5tpddCtezqkuUE_fmAgDV7XGZrvP06NhSSsrIHRBQNNXnA5l_xOGEY0?loadFrom=DocumentDeeplink&ts=0.36)):

We've all had the experience here in Texas of an unwanted visitor in the house, a spider, housefly, ants, and of course it's summer the cockroach. How many of you gently pick them up, open a door window and just kind of send them outside? How many of you grab a shoe and squish that roach spider ant or fly? I know I have to plead no contest to that one. In fact, I killed two roaches this weekend. But did you know that in 1872, Charles Darwin wrote that insects express anger, terror, jealousy, and love. Yes, emotions just like us. Pixar's 1998, film A Bug's Life, humanizes insects and gives them human struggles and emotions that we can relate to and that what bugs feel is the topic of this month's big ideas. A podcast from Texas State University. I'm your host, Dan Seed from the School of Journalism and Mass Communication. We are joined by Dr. Bob Fisher, an associate professor in the philosophy department and the director of the Society for the Study of Ethics and Animals. And he's here to talk about insects sentience, the capacity to experience positive and negative feelings such as pleasure, joy, pain and distress. Dr. Fisher, thanks so much for joining us.

Bob FIscher ([01:10](https://www.rev.com/transcript-editor/shared/a8xI33WK7VA9SW4A9Egg-SKZJnz9ZH-_7FV84liWfPo40q2583NT3wkW00jas47ijXeXll4h2UI9_ZXQFM6gohXo4mA?loadFrom=DocumentDeeplink&ts=70.5)):

Thanks so much for having me. Great to be here.

Dan Seed ([01:12](https://www.rev.com/transcript-editor/shared/cPKNkORXOLGjYmoBdB6PWoX19EoT5V8tcoeEPsBMv61XIycVKvwz9EsCkGXzSxfLxSJlLH-6oNJg7Ssk10bsFGDlPYE?loadFrom=DocumentDeeplink&ts=72.51)):

So first, introduce yourself to our audience. What's your background? How did you get into philosophy and what it is that you study?

Bob FIscher ([01:19](https://www.rev.com/transcript-editor/shared/x-ngPuUSMu5XyCQxz4BUlCZaqpEBwyO4ti4a9d7JxMBwPetix9P17BFPNWppWyxwmPsL9RQXdLOZneazudkiEhu6UmI?loadFrom=DocumentDeeplink&ts=79.65)):

Yeah, so Bob Fisher has been doing philosophy now for whatever, 15 years or so. I got into it because these were the biggest questions to be asking and people were asking them in a way that I found interesting. I think for lots of folks, philosophy seems kind of weird and wacky and obscure. My own experience. One description of philosophy I've always liked is philosophers are people who ask the questions that children ask and then try to answer them the way lawyers might try to answer them with those kinds of tools. That's a great

Dan Seed ([01:54](https://www.rev.com/transcript-editor/shared/D1Br-jcr5ncSIkgSXA7ykkn7EbuzjFsgv_5PR0yGEVjmvFgcVmsKe1M-zmrkNj4LyGONGTEQV2IiFVXh2svjdxJ3AnA?loadFrom=DocumentDeeplink&ts=114.51)):

Definition. I've never heard that before.

Bob FIscher ([01:56](https://www.rev.com/transcript-editor/shared/RpF-9O12o62hQmV5j2RqlwjE2vGjgV0-ueA9u7rNjmI0NBRl7QEHRksSmWupzxS9tSwDzwFM0JB2D-83xw5170IEbnk?loadFrom=DocumentDeeplink&ts=116.28)):

That's f fantastic. That's what I really like is we want to ask big questions. We want to ask the questions that matter, the things that are important, and then we want to use the most rigorous, logical tools we can use to make some progress. I started working actually in a somewhat abstract and technical area of philosophy, but found myself after I came to Texas State moving into issues about animals which the students enjoyed, which I cared about and have been my main domain of research ever since. And then in the last, let's see, 2016 or so, so I guess it has been quite some time now. It's funny, I didn't ever actually thought about it that way, but I guess for the last eight years was one of my interests. Thinking about invertebrates generally and what the sort of limits of sentient are, which animals out there can experience pain, which ones can be hurt?

Dan Seed ([02:51](https://www.rev.com/transcript-editor/shared/gbx21WYKwM179Hu2nT2a5-exfJMvaRx8nVj53MJSAJK0WOuM-3ORzMtug1CcUmh1x73O4x8NKlbcv5JCNw8UZC4U5mM?loadFrom=DocumentDeeplink&ts=171.06)):

I mean, that's quite an intersection though. How did you come to all this? I mean from that great definition of philosophy and being interested it to moving into this idea of ethics with animals and then insects. I mean, that's quite a path.

Bob FIscher ([03:06](https://www.rev.com/transcript-editor/shared/bQRT2aRd9VQV7TEat3FULdTWL6Q1OwPMQQauKdu7S8wuRYtKgAeR-MjafE2fdNpkMRqytdBck975-A05qIstS0N_aNM?loadFrom=DocumentDeeplink&ts=186.82)):

Yeah, it's a path. So I think that the short version is something like 20 years ago or so, I had my first thoughts about animals as possibly of moral concern. My wife and I were driving down the highway, we passed a truck full of pigs. She started to tear up thinking about their fate, and I said, oh, if this bothers you, maybe we should try not eating meat for a while. And I thought that the upshot of that conversation was that we were going to try that for a month. She had some other very different idea, but regardless, once we thought about that and done some more reading, it just took and it seemed like, oh yeah, animals are important. They should show up somewhere in my moral calculations. I should pay some attention to them. But I didn't really do anything about it professionally until I came to Texas State and started teaching.

([03:58](https://www.rev.com/transcript-editor/shared/Q1NDCTlosYdoeG9a2wIrBuNnFfKiaXvqy640u8dCd3GFKW-GJKLDG-ir_nMa1VMSqu6UEB03MQtf7PwCPKQGkB_9uEM?loadFrom=DocumentDeeplink&ts=238.99)):

And once I started teaching, animal issues are some of the ones that students find most interesting. They love talking about 'em, they love thinking about 'em, and it's fun to talk about the things that the students want to talk about. And so I started doing more work in that vein in part because of student interest. And then I for a long time have been interested in these questions about how we ought to eat. And then one question is, if you've got concerns about the way we normally produce food, beef, pork, chicken, fish, et cetera, what should you do? Should you just be eating plants? Should you be eating strange things like bugs and bivalves? Should you be doing something else entirely eating synthetic foods of whatever kind? Who knows? This is a complicated area of the future of food, and that's what got me really thinking about bugs. And then from there you start to wonder, okay, well there's one question which is like, how should we eat? But then this raises much more fundamental questions like, oh my goodness, what should we think about these little creatures that are all around us? How much should we care about them? How important are they? And once you start asking those questions, you find yourself asking about sentient and asking about your fundamental moral priorities.

Dan Seed ([05:15](https://www.rev.com/transcript-editor/shared/H69CORY6-LH5dkdX4uC9RAYfKNTr7uyleI09VCaUfDsNpPaE5uXhGpwrUmGsdG4rXESYokhbGzjXJcTw4siEo-vBYLM?loadFrom=DocumentDeeplink&ts=315.7)):

And before we get into this idea of sentt here with insects, I'm curious when these topics come up with your students, which I imagine they do in these classes, what's their reaction? Because I mean, my thought is the doey cow and you see and it's like, oh gosh, that's awful. But again, like I said at the beginning, the cockroach or the fly, it's a pest, it's a nuisance, and it's just get rid of it. There's thousands more. Who cares? What is their initial reaction when you first pose these questions to them?

Bob FIscher ([05:45](https://www.rev.com/transcript-editor/shared/aJadqHl6gAMW0C3vyLXaMotA4frX6xGx7BOchF7HHq4dJvYMmdVhNZuLnNdL-douxMfxydN61AzudQmdDWgd5_8VPDk?loadFrom=DocumentDeeplink&ts=345.52)):

Well, of course lots of the kind of reaction that you just had. And then one of the things you do is you go through each of those kinds of reasons and you think 'em through. We don't normally apply that kind of everywhere. We don't just say, well, look, there are lots of people. What difference does it make whether we save this one? That's not the kind of reasoning in which we engage. And also we should remember things like the category of a pest. All that means is fritter. We don't like around here. It's not like that's some fundamental joint of nature that we're detecting. It just means that we've got this tension between our interests and theirs. And so one question is always, okay, are there ways of reducing those tensions so that we don't have to treat them in that way? So lots of people, I mean, to give an example that's not about insects, think about something like feral hogs.

([06:39](https://www.rev.com/transcript-editor/shared/CH-ye4bFwPCSVzlWPwKWWzfUX15wQDi5zQaG6tvU_hqVcWwmuYopAo4d4_mh6LzRknnf-_HAOs5ii7ZChX7MaCML3nY?loadFrom=DocumentDeeplink&ts=399.26)):

Lots of people would prefer not to have feral hogs be a big problem in Texas, and they also want to kill hogs humanely. And so then they've got to figure out how do we manage these populations in a way that results in breeding these animals respectfully while simultaneously protecting our crops and our gardens and so on and so forth. And then you might just sleep the same way, but insects like, Hey, if they end up being the kind of thing that matters at all, how do you set up your life such that you don't have to kill as many and they're not as much of a nuisance? Because of course, if they're a nuisance, you're going to find ways of reducing the nuisance. But maybe you can do things the same way you might with hogs where it's not like anything goes, treat 'em however you want. You still want to treat 'em well, even if you're managing 'em likewise with insects, maybe you still want to treat 'em well, even if you're managing 'em.

Dan Seed ([07:31](https://www.rev.com/transcript-editor/shared/qHXCjvOVB5pNpMs4pYirv2PcCrH1w-Xg8XwOKY5TYrsHSQkBVqw35kt_zBGj71OQu2nJvxdM_6EGS0N912KLh36ucyI?loadFrom=DocumentDeeplink&ts=451.97)):

And hearing that, you can see that the root of the philosophical question, and of course it expands to larger and larger areas like you mentioned going to humans. And it really does make you think it would stand to reason that as living beings, that insects would have these kind of feelings. These feelings like what Darwin wrote about. But is there a way, I mean, it sounds like a dumb question, but is there a way to know for sure? I mean, it's not like we can gauge this or have focus groups with them. I mean, how do we know for sure with

Bob FIscher ([08:06](https://www.rev.com/transcript-editor/shared/uTKLLnP7nvQuNCXvZf1Zpf3YB9-c61hhum5nEs8nDGbcdwLBzR6yuxTYZJZop6QsZFl-gQBuy8S5VajZb8tTT8pF-tc?loadFrom=DocumentDeeplink&ts=486.08)):

This? So we don't know for sure, and that's not the standard to which we should hold ourselves in this domain. What we want to ask is, okay, can we get evidence that's good enough to guide what we should do? Because that's ultimately the practical question. What we were trying to figure out, at least from the perspective of an ethicist, which is what I am, is how should we go about acting in the world? What kinds of things should we do? And then the question is, can you get evidence good enough to let you know what you should think? And if you hold yourself to the, you got to be sure, then that's always going to be a way of giving yourself wiggle room to not act, right? You can't be sure about lots of things. And so quite often this is a trick we do and we don't really want to make any changes in our behavior, is we sort of ratchet up the standard of evidence that we're going to require.

([08:56](https://www.rev.com/transcript-editor/shared/dg9AV4MxhfSVO_sspAgMan_pemXnfoyWu2QgxC1kEdfo-rFacV6mkulImABXFYO8Tzq0EXbiVxT5TLN-3RG-7RJiBXI?loadFrom=DocumentDeeplink&ts=536.49)):

That being said, when it comes to this, you're going to use the same kind of techniques used for any study of non-human animals. You're going to look at things like what are the kinds of evolutionary forces that are in play? What kind of cognitive abilities might have been selected for? Why might it be valuable for organisms, different kinds to have different abilities? Why might it be good to have a pain system? Why might you care about that? Or rather, why might evolution care about producing that? And of course, evolution doesn't care about things, but it's sort of a useful way of thinking about what's going on is to say, well, what would the adaptive value of this kind of system be? That helps you start to develop decent hypotheses about which kind of organisms would have something. And one basic story about that is going to be, look, once you get mobile organisms, they're not just like permanently to rocks, but they're moving around in environments.

([09:57](https://www.rev.com/transcript-editor/shared/BDbMhWmRJ6LYjjsP53WWxUZOeADjtplsv3Q2GuoClGDQdgdv9l7QKckI5EF0SiPsXQtvaYcF-t_EI00DmeGWmpeD14k?loadFrom=DocumentDeeplink&ts=597.57)):

They have to be able to distinguish themselves from the environment. They have to be able to make fast decisions about avoiding predators and finding their prey or finding food sources. Then they need some kind of system that motivates them to go toward the good and escape the bad. And maybe things like pleasure and pain, positive and negative feelings are what do that for them. And so if you accept a story about, that's why we have these kinds of feeling states in the first place in organisms, well then that's a very basic fundamental ability that you would expect to have in lots of organisms. You would expect sentient to be very widely distributed in the animal kingdom. And then on top of that, you just look at behavior, right? You say, okay, well, do they try to avoid things that damage them do?

([10:50](https://www.rev.com/transcript-editor/shared/vyBnR5VcROEzzVKv24A22da7CWqzbXBmtVjQzm7G3gmsAYoTKd7u7S0Zno_b1ktRYhxxTVjn2J3iWfD5i2FYIJzSjBY?loadFrom=DocumentDeeplink&ts=650.04)):

Do they actively seek things that seem be beneficial for them? Do they respond to analgesics? If you give them the same kind of painkillers to which humans respond, do they respond to them? And it turns out proof lies due, for instance. And so there are all of these behavioral tests you can also use. And so you put together a few sources of evidence. You say, let's think about this from a big evolutionary perspective. Let's look at some behavior. We'll also look at some neurophysiology. Insects are useful pain models and depression models actually for humans. So people use fruit flies to study pain in humans, but pain circuits in humans. And that's a very interesting thing. Why are they such a useful model? Well, maybe because they have similar sorts of states. So maybe we don't want to go as far as Darwin and attribute all of the sort of complicated, sophisticated emotions, but some simple states like positive feelings and negative feelings. That seems not so crazy.

Dan Seed ([11:51](https://www.rev.com/transcript-editor/shared/U7kxevSxHesFabkDq4v8bUXQxpyPwqiR6FJnU3KRrbNLnnFpmc3ZNVpVi31ZvAyyarAlI_5QF4KdeK0G58Ud5Ta-O48?loadFrom=DocumentDeeplink&ts=711)):

And you touched on earlier this idea of this fitting into some larger issues in society, food sources. For example, we've done an interview with a professor here at Texas State who was looking at using fly larvae, for example, to feed cows to help that situation. How does this fit into that larger global issue that we're facing now in the future?

Bob FIscher ([12:18](https://www.rev.com/transcript-editor/shared/2QVWlYHGsV_IaBjXbhxXSQrd_e6WM7C8RCcwxBJkTGXGh_4n9xFQqoNCSjmhWhwC1q9Pwt2VrC2Ehc1olgGd6yatA5M?loadFrom=DocumentDeeplink&ts=738.31)):

So I mean, there are lots of things to say about this big interesting, complicated issue. One thing to say is just because we're farming animals doesn't mean that we have to farm them in any particular way. So you can farm animals in better and worse ways, ways that are higher welfare and lower welfare. If we're going to raise cattle, we should raise 'em. Well, if we're going to raise pigs, we should raise 'em well. And likewise, you might think if we're going to raise animals for feed, if you're going to raise black soldier flies to feed them to cattle, well maybe make sure you think about the welfare of those animals as well, right? They're just one more animal in that system. And so the first thing to say is just insofar as we can learn things about what's good and bad for these animals, we can use that to divine better systems for rearing them for the purposes we have in mind.

([13:08](https://www.rev.com/transcript-editor/shared/FflwnrlcwkAO7DMb1b7FBwNOfvpG96HfGU8JcheJgJKkOEowuo03GvZcQZOwfCj3DS3QWtusIKmXimfIEeS7j_wk4_Q?loadFrom=DocumentDeeplink&ts=788.8)):

Now, there's a big and much larger set of questions to ask about, Hey, is this a system we want? Do we want to try to build an animal-based food system? We want to fundamentally be trying to produce these kinds of products knowing the way that animals are often harmed in the context of those systems. And that's a big important debate too. And it intersects with lots of other important conversations about the sustainability of the food system, and can we really afford environmentally to be raising this many animals? And is it good for our health to be eating as many animal products as we do, et cetera? So there's a lot of big moral questions to ask. There are connections between those big moral questions and environmental and health questions that we also all care about public policy questions. But to return to the beginning, the fundamental point is, Hey, if we're going to do this, we can do it better. So let's keep animal welfare in mind whenever we're rearing any animal.

Dan Seed ([14:09](https://www.rev.com/transcript-editor/shared/GgcXlxJJWUL5EVJlM9_vi6huNdeQYFchrwF_8xJfVt_EAyv-gXQwwKWPjMejOE2c7Grwk-0MN8dDGeAaI0jBC1WecoU?loadFrom=DocumentDeeplink&ts=849.97)):

And again, we're joined by Dr. Bob Fisher from the Department of Philosophy, and I mentioned Darwin 150 years ago writing about this. You've talked about these studies with fruit flies your own work. It seems like as we've moved farther from Darwin, this has become this ever-growing field of research and thought just looking at it in research for this show, it's really fascinating. Why do you think that over the last number of years, this has become a more popular field of study?

Bob FIscher ([14:38](https://www.rev.com/transcript-editor/shared/dTxq1b0h2J1HdJ637yTGhie2NFIcrM_sWR1TAUxFpO1BHSW40qfcVQ_ZLVu0PMJzBm4X9a52Ys9kb_GeO5wYnN3OIw0?loadFrom=DocumentDeeplink&ts=878.65)):

Well, I do think it has become a more popular field of study. In part, it's just a trend line in that if you go back 40 years, you're looking at debates about whether birds can feel things. And then you go back a little bit into the nineties and there are debates about whether fish can feel things. And then you go back 15 years and the conversations about octopuses and now all of a sudden the invertebrates are in view and we're just having this next stage of the discussion about insects. It's kind of a natural progression in one sense. It's also, I think, emerging in part just because the food system is changing right now. If you want protein to feed either to ourselves or to other animals, you got two options. You grow it or you catch it, right? You grow soy or you catch fish and turn 'em into a fish meal.

([15:34](https://www.rev.com/transcript-editor/shared/4p8SHZZHSIlb6xkkeQmTA9EajxxcVIPA4YlMwm2qHskxRuZgTdzKigvVW6_uG4EM32m5qOuDgNm2iAj6q0oLatb2JJY?loadFrom=DocumentDeeplink&ts=934.16)):

That's where the protein is coming from, that goes into animal feed. And insects promise to be this exciting alternative from a perspective of the basic protein that goes into the food system because it's not stuff you have to grow or catch. It's stuff you can rear on recycled product. So that's the big sustainability promise of insects is that you can feed them on waste. And so as opposed to getting new stuff, you can reuse old stuff, which is drawing a lot of capital into the insects as feed industry, and it's getting hundreds of millions of dollars of capital investment. But that of course, raises questions about these animals where we weren't rearing insects at intensive scale previously. Now we are. And so then you start to ask, okay, well anything we should be worried about here, any welfare issues that should be on our minds? And suddenly that conversation comes to the fore.

Dan Seed ([16:31](https://www.rev.com/transcript-editor/shared/amqF0Kld60_zWJUhYP0RS4iKqP0hOx2LTIOh3yKF4BNkATkwG-N7iceZ4g16uDW7c4frpPTje8v9lIIFyUZuVdiZpCs?loadFrom=DocumentDeeplink&ts=991.55)):

So this work that you do and others are doing, who's your main audience? Is it the general public? Is it folks like say entomologists? What's the intersection there?

Bob FIscher ([16:42](https://www.rev.com/transcript-editor/shared/HxsUebvhavlQwHewQ7cdy0NRTrtL2BCTX2e7riJ5LNESkRtpxoa2priOgxjynPT8rdjBMA8wSaZ0EK5Tb56Fm8ywr4o?loadFrom=DocumentDeeplink&ts=1002.89)):

Well, it's not really the general public. I mean, it's great if the general public wants to hear thrilled if someone wants to engage on this front. And of course there are things for the general public in that, as you were initially saying in your intro, yeah, we're thinking about the question of how you should handle the cockroaches in your house. That's at least worth exploring as a puzzle. But the primary goal is to talk with folks in industry and with the entomologists who are collaborating with industry and to say, Hey, this is happening. This is where we are. This is where the food system is headed. We should expect alternative protein sources like this to grow in the future. So how do we do this as well as possible? How do we think as clearly and carefully as we can, given the possibility that we're dealing with animals that can feel,

Dan Seed ([17:34](https://www.rev.com/transcript-editor/shared/Idmt6zbXQ6djzg4QmAYtXZC0EDIUNdZbCKwV2fkVUTmZQynGyVpE97oel4yOg_mfDEXhRUkcw4UpeeZjgTHKlD3TVgw?loadFrom=DocumentDeeplink&ts=1054.46)):

And your larger work in animal ethics is really interesting. Again, because of all the ways that it touches our society. Could you give us a glimpse into that and how thinking ethically towards animals impact society on a different level? You did already, you touched on it briefly, but I'm just curious some of the other things that you've worked on for our audience to know about and hear about.

Bob FIscher ([17:56](https://www.rev.com/transcript-editor/shared/fl8-uNnJ8ts625p3P2LxUtWkmq9gKmGNXuYqp7jySwmj089wxl8508mdCuOVS0o8zQ-ZyZt5mb6xyc3UUjQ2xwAAZR0?loadFrom=DocumentDeeplink&ts=1076.1)):

There are two things that I think are on a theoretical level to answer your question, and I'll say something about the more practical stuff. There are two things that we're really trying to do and we're thinking ethically about animals. One of them is just putting animals in view. Most of the time we just don't think about 'em. They're just not really part of the moral calculation at all. And we're thinking about human interests, and then we're not trying to figure out, okay, well what are the impacts on animals in this context? How are they affected by what we're doing? So that's the first, I think, major impulse in animal ethics. And the second is just to force people to think a bit more carefully about the reasons for courses of action. And I already did this to you, so you made this quick comment like, oh, they're replaceable.

([18:41](https://www.rev.com/transcript-editor/shared/dNq1NjeAUeBK53_Kb1hWXaPqdNL17w01GT9lPJ3tvNOsONwwiOXqgJdZ0_k5uw6g3dRRZYnaOjRxv-F76A41CWd0xhA?loadFrom=DocumentDeeplink&ts=1121.91)):

There are lots more. And what did I do in response to that? I just said, oh, well, we don't use that same kind of reasoning elsewhere. And that was just a nudge to say, not necessarily that you're wrong about what you were ultimately thinking it was okay to do, but just to ask for a more systematic reason that doesn't just treat animals as a special separate case and invites us to be more consistent in the moral principles that we apply across species. So from a theoretical perspective, that's really what I'm trying to do when I'm doing animal ethics, keep animals in view and push for a bit more consistency. On the practical side, in terms of the kinds of projects, there are a lot of different things. So I worked with a team to produce a book about wildlife ethics, and the main challenge there was talk to conservation biologists and wildlife managers about the kinds of ethical issues they face as they're out there doing the work they do, culling some animals that are perceived as pests, dealing with invasive species, trying to figure out what kinds of methods for tagging animals are better and worse than others.

([19:50](https://www.rev.com/transcript-editor/shared/Ecr64TrWbgUnkN_B2VNU-lJPcv-LEsbgBQAA13lgLEro_qdhbiwF22GcNz7HmQe98JdiVetbY1p8j3WZ_4p9poeB6eg?loadFrom=DocumentDeeplink&ts=1190.49)):

Trying to figure out how to deal with tradeoffs between animal welfare and environmental goals, all of those kinds of things. I've done work with philanthropies trying to help them figure out, Hey, you're looking to spend your budget. You want to decide how to get the most bang for your buck in terms of doing good in the world and you're invested in animal projects. What kind of things should you prioritize? How should you set your objectives as an organization? I've done papers on a whole range of particular applied topics, everything from questions about should you keep your cats indoors to prevent them from killing songbirds to how should we think about the way our relationships with animals change during the pandemic, a big range of stuff. But to go back to the original point in all that work, really the main themes are the same. Just get animals in the picture and try to push for a bit more consistency.

Dan Seed ([20:51](https://www.rev.com/transcript-editor/shared/UD9LbztHboTfoxHhQXb9Y2J6LQ-cGBiCzsUpRcEq6wbYttOIvoEWCTuEK8bDDHHFlGvFwvAANI89ekrnU9K2r5JrpUM?loadFrom=DocumentDeeplink&ts=1251.19)):

So we mentioned earlier the students and getting people to think about this. In what ways do you think that you can go about, or we can all go about a better understanding of this topic, insects, whether it's animals, insects, whatnot, to think better about this or to think differently maybe about this?

Bob FIscher ([21:11](https://www.rev.com/transcript-editor/shared/mqY3dO2i_JKSI5VLy88Vqf-v7jRiqFLCaLM1XHgLF1fRxbY497LyyG4NQb-liZhAxRexo0hkOjuhNbmMmFkSB4vLz4U?loadFrom=DocumentDeeplink&ts=1271.29)):

Yeah, great question. I think the first thing to say is just start to think a bit more about animals as individuals. Think about them as not just instances of a species, but rather try to think about the impacts on individuals. One thing that I often think about when it comes to insects is imagine that bumblebees were the size of elephants and really rare, and they only lived on the Savannah in Africa. People like bumblebees. Now imagine how much more they would like bumblebees. Then You don't have to imagine them any more sophisticated, any more emotionally complicated. But what that sort of suggests is the fact that something is really small and maybe is sometimes a nuisance buzzing around your head makes you basically not care about it. And if we just change the size and how common it is, you could think really different. And I think the same thing is true.

([22:08](https://www.rev.com/transcript-editor/shared/yA2jZ9unoH52l7uIBxLpv0FRYT0973RoC5B0fZWR9Gp6qe6SW9VQgBcH53ZOvlOSPrWZJt7c0tvy8NQhorpTThFfBTY?loadFrom=DocumentDeeplink&ts=1328.53)):

When I look at other species, you think about ants or termites or anything else. Yeah, maybe I'm only reacting kind of negatively to this creature because it's inconvenient for me and it's small and it feels replaceable, and I can't really see any of the individual things that it does. But if it were a larger thing, I would care. And that sort of checks my own impulse to just be like, oh, these things don't matter. I'm like, oh yeah, that's actually just a bias. I'm just responding to size and numbers. I'm not responding to any facts about this individual creature. And so that sort of changed the way I think about a lot of animals where it checks the impulse that I have to just sort of write 'em off as not important. The other thing, of course, is I think for most people, when they learn more about any kind of animals, that changes the way they think about 'em, right?

([23:01](https://www.rev.com/transcript-editor/shared/Ct0znhOtfCj9sbutBRP5QSXQep38lbBNmQpKUf6R56rOLqNNmoyox0dg4TZYl4LM_gjDrgViEX7wlVWfZrY65wPt1LA?loadFrom=DocumentDeeplink&ts=1381.45)):

Most people don't know that pigs build nests and are frustrated. They can't build nests in standard intensive production facilities. And when they learn that, they're like, oh, that seems bad. That's sad. Yeah, that's an unfortunate thing about the world, that they don't get the opportunity to do this thing that they really care about doing. And I think it's the same also with insects. When you find out that when ants go to war with termites, they carry their wounded nest mates back to the nest. They tend to them, they give them antibiotic secretions, feed them, and you're like, oh, man, I don't know. It seemed a bit more like a band of brothers than I once realized, and it can sort of change your thinking about these animals. So I think a lot of it is just trying to see the individual and learning enough to be able to get a sense of what these animals are about, what they care about, what's important to them, and that can be enough to sort of change your attitudes a little bit.

Dan Seed ([24:02](https://www.rev.com/transcript-editor/shared/VbcFmA4_eEF_YgfnwAVGc-txb3YrxWKWOhq4ADXVGUYZkcJdBtX3rWTGUa2boj9_efAoGu-M7kmYUBz15dyL-XK_M4U?loadFrom=DocumentDeeplink&ts=1442.45)):

It's interesting that you say that because I think I have two daughters, seven and five, and we'll be outside playing, and my five-year-old, the ants will be walking across the sidewalk and it's just a free for all. Like, oh, ants, let me squish. I've never really thought of it how you've presented it, but I will say to her now that Ant wasn't bothering you. He's just walking across the sidewalk. Why did you do that? And it's interesting, the example that you gave, and she said, well, because they're in my way and they're small, and look how many there are, right? And so is this something that you would say, I mean, this is a big philosophical thing and something that PhDs and college students investigate and question, but even working with children on that very basic level, that would be a great opening way to kind of begin this discussion, and then it can get more complex and complicated.

Bob FIscher ([24:54](https://www.rev.com/transcript-editor/shared/OvORjGDUZ5xPagvckQ8AouI6EoinnzoUp9HTDKia-Y30gEAxk2WeyiIon-FLqKkKBYzFZBR_4Sk_c4lWgS8T8tbgJb8?loadFrom=DocumentDeeplink&ts=1494.71)):

Yeah, I think that's exactly right. And you think about what you did there as a parent, and there are two things that I think are quite significant. One was just inviting a child to have to justify an action, which we do all the time as parents. I also have kids. My kids are just a little bit older than yours, but similar ages and a lot of moral education is just showing students or showing your kids that this is the kind of thing you have to give a reason for. It's not like a freebie. So that's a really important thing that you're doing. The other thing is just sort of inviting your kids to see this as the kind of area where some compassion would be appropriate. Like you said, oh, well, it wasn't bothering you, it was just doing its own thing. And that's inviting a certain kind of response was to see this insect as an individual and to be like, Hey, look, a little bit of mercy is appropriate here.

([25:53](https://www.rev.com/transcript-editor/shared/00WQWvo-hJ45pyafSikhPv2lqW8nuZgaSTScoTRjAg4oXDkCT65rxtaX944RUBOCEePXhhknYRko2cvzNTetksA1jjw?loadFrom=DocumentDeeplink&ts=1553.15)):

A little bit of concern, a little bit of attention. And that too, I totally agree. That's the right kind of approach. I think on some level, when I think about the insect case, this is not the topic I ever thought I'd be working on. This is not the thing that I ever thought I'd be spending a bunch of time occupied with, but on some ways I see it as kind of a case study in how committed we are to building a culture of compassion. If we really care about doing that, then it's kind of useful actually to focus on insects for a moment, because kind of a proof of concept, right? Test case, can we be compassionate even here? Well, if so, maybe that's a good way of cultivating some virtue, right? Developing the kind of character traits we actually want for ourselves and others.

Dan Seed ([26:38](https://www.rev.com/transcript-editor/shared/uQ8SLDDp4OqhvQ4pHpj3mi5gNDxCmv3uDVWO3c98E71qdkorpIx6bsW_WArg3B3ArGp6oq5RKixQMioG5kJ8V1IugP8?loadFrom=DocumentDeeplink&ts=1598.78)):

Well, Dr. Bob Fisher, thanks so much for being with us. This is really quite enlightening, and honestly, even my mindset has changed here after talking to you. Thank you so much for being with us.

Bob FIscher ([26:50](https://www.rev.com/transcript-editor/shared/i9BjB6TPXyiwfFJ2_pUgQkT_q5Xq4AI6ewTZ8bzYRrZOEl729bL3M32v2jNuu2JFdMUMg7_zARMSNnqfKVA5rtnFQ7k?loadFrom=DocumentDeeplink&ts=1610.01)):

Fantastic. Really enjoyed being here. Lovely to have the conversation,

Dan Seed ([26:53](https://www.rev.com/transcript-editor/shared/uxlEeSsRhh3g1ne8ExC0HzIA3YVTlCL5fVt9AFsgeZWedmhLD0ih1NuyqNsTKc21Lu3f4BSb7_h_vHrIWSiMWd7vuCE?loadFrom=DocumentDeeplink&ts=1613.91)):

And thank you all for the pleasure of your time in downloading and listening to another episode of Big Ideas. We'll be back next month with the new episode. Until then, stay well and stay informed.