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# So Cute You Could...Crush It?

#### Dr. Birnholz:

You know those times when someone says, "That's so cute. I just want to crush it." Well, it's kind of weird, and yet we can all, more or less, relate to that, whether it's pinching a baby's face, hugging a teddy bear tighter than a wrestling joint lock, or even reading popular children's stories where wild things yell, "Please don't go! We'll eat you up! We love you so!" And there's an obvious pattern here. And guess what, that pattern not only has a name, it may be neurologically rooted. More on that to come on today's topic of Cute Aggression with a scientist whose research helped to coin that term.

Coming to you from the ReachMD studios in Fort Washington, Pennsylvania, I'm Dr. Matt Birnholz. Joining me is Dr. Oriana Aragon, psychologist and Assistant Professor of Marketing at Clemson University.

Dr. Aragon, welcome to the program.

Dr. Aragon:

Thank you for having me.

Dr. Birnholz:

Great to have you with us. So let's start by talking about what initially sparked your interest in this phenomenon. It's definitely unusual but fascinating.

Dr. Aragon:



You know, it is funny. So I was a grad student at the time at Yale University. And a lot of our research comes from these really scholarly places, right? You're reading journals and articles and building upon the shoulders of others. But actually, this particular research idea came from watching late night television. I was watching Conan O'Brien. And I'm really interested in emotion and its expression and its communication, and Conan O'Brien had a guest on there, Leslie Bibb, an actress, and she was talking about this cute little puppy and, "He was just so cute," and the way that she was responding, she was like gritting her teeth; she was clenching her fists; she was scrunching her nose and just really had the corrugator muscle going, just like really what would be a canononical face of aggression, right? She was like, "Oh, he's just so cute!" And I saw that and I thought, "Ooh, that's weird." And Conan O'Brien actually made some comments, of course. He made fun of her.

But the next day on the phone with my father I mentioned what I had seen, and he goes, "You know, is that really that much different than someone pinching cheeks, grandparents pinching cheeks? 'How cute is that baby?'" And that's when it kind of clicked. So actually, he's the one who clicked it, not me, but it clicked in my head, "Oh my gosh, oh my gosh, oh my gosh." And then I started to think of all the times that our face looks a little bit what you would consider normatively different than how you feel on the outside. So like we cry and we look devastated when we win the lottery. We cry when we see people that we love that we miss. We laugh when we're nervous. You look like you're in pain when you taste a delicious dessert or hear amazing music. And I started thinking about all these instances. And so that's really what got this all going was that initial seeing Leslie Bibb, and it really was from the very onset I was thinking that this was a range of expressions that might have a certain—a special class unto themselves just because they're not normatively what you call congruent. Like what's happening on the inside, if you were to take a snapshot of what's going on on the outside, it doesn't exactly match in the way that we think things should match.

And so for the cute work, we were started there because cuteness really does attract and inspire people's attention, and it engages people, and it really does elicit really strong emotional responses. And we've done so much research in psychology on the expressions towards cuteness. So when you see something cute, there are really strong expressions of care and wanting to be close to it and wanting to nurture it, so these things have been really well studied, so it was a really great place to start, starting with something that was well studied, that we knew what sort of expressions should occur with the cuteness, and then looking to see, "Okay, does this actually happen? Do people actually do this secondary expression, this like, 'Ah' (said angrily) this like aggression?" And they do. A good portion of them do.

#### Dr. Birnholz:

Oh yeah, I would agree with that. In fact, I would say half the memes out there today are entirely based



on cute aggression or some form of dimorphous expression. I think we can all relate to it. Although, I think some of your research indicated not everybody has dimorphous expression or has what you might call cute aggression. I'm kind of curious as to that, as to why that might be, and moreover, how one even begins to study cute aggression and actually track and monitor it and define cuteness in a way that's measurable.

### Dr. Aragon:

Okay, so first of all, yeah, you're right; not everyone does this. And in fact, there's another response to cuteness that even seems to be more ubiquitous, and that's sort of the pouty, downturned mouth like extreme pout "Oh" (said sadly) face. "Oh, so cute," (said sadly) and you just see this total crumpling of the face for the cuteness, and so there's that one also, and not everybody does. I actually wrote a piece about this trying to understand why some people might express this way and some people might not, and it could have just a couple thresholds or levers that need to sort of click for this to happen. On one they only seem to use dimorphous expressions when they seem to come about when individuals are experiencing pretty strong emotions, and so it could be that some folks just aren't experiencing emotions that strong, and maybe that's why they don't. There's another component to it also for us to regulate our emotional expressions. I'm sure you could maybe intuitively understand that when you are really tired, or even younger people, little children who aren't as experienced in sort of controlling what's happening on the face and coming out of the mouth, when you have less experience or ability at the time because you're tired to control, it could be that those levers of control are different for some people than others, and it could just finally be that some people just absolutely do not express this way.

And it's funny because you think of those really intense life moments, like maybe the birth of a child, and I think a majority of people might in this case... In fact, when I ask about it, a lot of people say that, yes, they would or they did cry at the birth of a child, but there is still a fraction... Even with that intense of an emotional situation, there's still a fraction of people that don't do that, so that's the individual difference part. We're still working on that.

#### Dr. Birnholz:

And on that note about control versus sort of natural, I always wonder about this idea of what's performative, what we learn and what's a natural type of expression, and the common trope that we see outside of cuteness is somebody's crying and someone else will say, "What's wrong?" And the person says, "I'm just so happy." And I want to ask you, based on some of your research, whether there was that investigation into what's a naturally imbued type of response such as the "Oh" (said angrily) versus a learned pattern of behavior that for many people socially expresses a sense of, "Well, that must be cute."



### Dr. Aragon:

Mm-hmm. You know, that's really an interesting question. So I think that a lot of this is spontaneous and not shaped as much by culture or social norming, and here is the reason why I say that. One of the very first things that I did was I started surveying and finding out if people even just know what I'm talking about when I'm talking about these sort of responses, and I checked here in the United States, and clearly it was here. And then I thought, "Well, okay, what would be a good way for me to check around the world?" So what I decided on was to look for phrases or expressions within languages around the world that indicate, "That's so cute I want to bite it, or "pinch it" or "squeeze it" or "eat it."

Dr. Birnholz:

Or destroy it, of course.

### Dr. Aragon:

Those sort of expressions, sort of like what you talked about in the introduction, right? So I contacted experts in Zulu, Indonesia, and just around the world and looked for these expressions, and indeed, they occurred almost everywhere. You have to admit that there are pretty strong cultural differences when you go into different cultures around the world, and yet this seemed to be a somewhat through line, this sort of expressing. So I think that because of the way that it sort of is pan, that it's going around in cross-culture, that would be sort of an indication that it may not be necessarily we're doing it just to norms here in the United States. That was one of the very first concerns is that maybe we're just norming to something that's kind of a trend or kind of fun, but that wouldn't show up in the languages around the world like that. It wouldn't show up unless it was like a brand new meme or a brand new type of expressing, but I didn't see it. And this is before all the craze hit with the cute aggression, because remember, it didn't exist. I was researching this when it was still very untouched, right? Now I can't do the things that I used to do when I was researching because it's a phenomena now and everyone sort of has an idea of what it is, but when I was starting, no one was thinking about it in these terms, so it's kind of nice. I could go to Google and put in "so cute I..." and dot dot dot and then see what the top results would come out. And I actually screenshotted and saved those from back when I started this, and of course, it has all changed now because it's actually become sort of the thing. But yeah, I think that's pretty good evidence, yeah.

#### Dr. Birnholz:

Clearly, we have learned something about both of us... You mentioned the dot dot, and I filled it in with "destroy it," and that probably says something about me.

(Laughter)

Dr. Birnholz:



For those just tuning in, you're listening to ReachMD. I'm Dr. Matt Birnholz. Today I'm speaking with Dr. Oriana Aragon about the dimorphous expression of positive emotions and other emotions, also known as cute aggression.

So, Dr. Aragon, we've been talking a little bit about some of the groundwork, the foundation behind your work and what led to this concept of cute aggression. There have been some further studies that have tried to actually link this to neurological underpinnings and things going on with EEGs and the like. I want to talk to you a little bit about that. What kind of work has been done following up from the work that you helped pioneer for cute aggression?

#### Dr. Aragon:

So a lot of work has been done in trying to understand these dimorphous expressions. From within my group, there has been a lot of work on looking at what they represent and what they communicate across different situations. So if you have this aggressive expression, it could happen because you're actually angry; it could happen because you're excited; it could happen because you're looking at something cute; it could happen because you feel accomplished as though you've just sort of nailed it, that sort of a thing. And so one of the first things I did was I wanted to see is there anything in common... When we just have this aggressive expression, is there anything that I can say—any through line that I could say, "When this expression appears, this is what people are reporting, the emotional sensation that they are experiencing"? So I was trying to find: commonalities? So clearly, when you're angry because somebody wrongs you and you have an aggressive expression, there is a lot of negative affect, negative emotion that accompanies it, but if you're doing that aggressive expression because you just nailed that exam, it's a positive affect, right? And it's even in that case maybe even an expression of power. So these different situations have very different flavors. But what we were able to find was that the through line with the aggressive expressions was that there was a strong orientation of wanting to go, wanting to move, wanting to approach, wanting to propel forward. There was this momentum aspect to it. And we contrasted that with smiling conditions, and we ran a whole battery of studies, and then we also contrasted it with crying, crying when you're happy because you've accomplished something, maybe receiving a diploma, crying when you've had a windfall maybe, winning gazillions of dollars, crying because you're sad, crying because or making even that pouty face, pronounced pouty face because you've seen a very adorable puppy or baby, right? So we looked again for a through line then for these crying expressions. What we found was that people wanted to stop. They wanted to be still. They wanted to take in that moment. Whether or not it was taking in it because they were wanting to recover or wanting to savor, there seemed to be this sort of stop orientation.

And so, when you think about that go orientation or that stop and savor orientation, that immediately



starts you thinking about the reward system in the brain. That immediately starts you thinking about how might these things map on to what we already know in neuroscience about this dissociable system of reward where one part of it is about wanting the urge to go and get—it's an antsy-ness; it's a desire to move forward—and the other, the actual refractory or consummatory part of when you actually stop to indulge, to savor, or even refractory once you're sated to actually be dormant until the next cycle where you approach again. And so mapping that on, it made sense that maybe when you've seen a cute puppy and you're, "Err" (said angrily)—you know, you've got the aggression thing going—that you're going to be in more of a go, and that might be something that you can record looking for that indices of reward in EEG.

So there's a group in Riverside that actually recently did that, and they were looking for that relationship. They were looking for the emotional salience—clearly, that is an emotional event—but also trying to tie it into that reward, and indeed, they did find that, that that reward system seems to be a part of it.

Not only have we looked at what these things represent, but also what they communicate, and so they seem to really clearly communicate to others. When you see an aggressive thing, people immediately understand that that is a go signal, and when they see the crying, they know it's a stop signal, and I think that could be part of why we do these things—because after all, why wouldn't smiling be enough? Why can't you just looked at the adorable baby and smile and smile more and smile and smile more. Why isn't that enough, right? Why does it have to turn to these other types of expressions? And I think it's the ability... Those expressions have an ability to communicate these other dimensions, what we call motivational orientations, and so that's what my lab has been working on. So we just actually completed a study looking for that reward pathway, so contrasting the crying from the aggression, and those things—those results will be out soon in the next few months. But yeah, that's how we think it might layer on.

### Dr. Birnholz:

That's great. I'm looking forward to that study. It sound like one barometer that we can use is that the cuter something is, the more go time it's going to be.

### Dr. Aragon:

Yeah. Yeah, it's funny too, because it's like we have those 2 expressions, right? We'll go to "Oh" (said sadly), and we do the "Arr", but it's funny because I think that because the one that's like a go, like, "I'm going to go get that baby," essentially, right?—like, "I need to get to that baby," I think that that kind of expression may only show up when it's like a photograph or some way that you're not going to scare or insult the baby's parents, right? I can't imagine a stranger doing that to someone's baby, right? But



you would do it to your niece or your nephew or your own kid, or you'd do it to a photo like, "Oh, it's so cute," but I don't know that people would do that as much to strangers. But I think that they do the "Oh" (said sweetly) and sit back. So in other words, I'm not going to approach your baby. I think your baby is really cute, but I'm just going to stop right there and enjoy it, right? So that would give you a reason why in one case someone might go, "Oh" and the other case might go, "Err" (said angrily) you know.

### Dr. Birnholz:

Well, and on the stranger's beat, there might be something pathological there, which is worth examining as well. We are a medical platform. And on that note, I don't want to put you in an uncomfortable spot, but I think of pathological reasons that might alter someone's reward system—you know, mood disorders, personality disorders. I'm wondering if this response then becomes a type of barometer for that if they can't elicit a dimorphous expression.

### Dr. Aragon:

I don't think so, because I think there is a large enough portion of the population that says they're not doing these things spontaneously, so I think it was only around 50% to 60% of people say that they do the aggressive one; and for the pouting one, it was actually a little higher, closer to 65%, 70%, in the surveys that I've taken or the data I've collected, so I don't think that it's so normed that to not do it creates an outlier, but it is interesting. And there are some disorders that are interesting to me where sometimes when people have flat affect, or in other cases where people are not good about controlling their affect or affective responses, I think it's an interesting place to look to try to understand a little bit better.

#### Dr. Birnholz:

Let me ask you then my last question to you. Where do you see the next research targets? Is there more to investigate in the cuteness field? Clearly, there must be.

### Dr. Aragon:

In the cuteness field... Well, in the cuteness field, I'm actually looking at engagement and during engagement, so it seems to me a lot of our researchers looked at how well cuteness captures attention. And that was one of your earlier questions was: How do we quantify it? Actually, a lot of really great work has been done looking at the actual physical features that bring about appraisals of cuteness, and there are canonical features: large eyes, rounded cheeks, rounded features, big head to small body ratios. There are these things that when they're present, we make an attribution that, "Oh, that is cute," and then all the good feelings of, "I want to care for it, nurture it, take care of it," follow. And so our research so far has shown this attention capture and the sort of the immediate responses, but I'm curious about enduring responses. It seems to me like cuteness—it doesn't get old. It like has



a constant refresh signal, you know. If you're familiar with neuroscience, you know that we habituate a lot of things in our environment. We're not aware of most of what's going on when it's not vital or not a central focus, controlled focus at that moment, and so it's interesting how cuteness seems like it just continues to recapture attention, and so I've been working on that question, curious about how cuteness might recapture attention. It makes sense, right? If you have a child, you need to be engaged with a very small child, especially when they're in those really cute ages when they begin to roll over and scoot around or even begin to walk. They're especially cute at those times, and they're also needing the most intense, vigilant care because they're going to go and roll off or scoot off or get into things that could be dangerous, and so it's important that we're vigilant, and so it makes sense that we would—that cuteness should be able to attach and hold our attention in that time. That's the cute research.

Dr. Birnholz:

And I love it. We're going to have to coin that term too, "cute research."

### Dr. Aragon:

Yes, it's cute research. I'm doing dimorphic expressions too. They are splintered off. They are 2 different lines. But dimorphous is really cool because I want to really understand that what it is that we're communicating and why we do these things. And so I feel like I've gotten a thread to pull here trying to understand these motivational orientations and why we might express, and so I'm pulling on that thread, and I'm now going after understanding and pain expressions. When things are really, really pleasurable, why do we have an expression of pain? And so I am pulling on those threads to try to understand, and my hope is to understand why our face does what it does all the time if we can understand these expressions, so I'm really excited about the work.

#### Dr. Birnholz:

Well, Dr. Aragon, thank you in turn for helping us pull the thread on this idea of these psychological and neurological bases of cute aggression. It was great having you on the program. I hope to have you again sometime.

Dr. Aragon:

Thank you.

Dr. Birnholz:

I'm Dr. Matt Birnholz. To access this and other episodes, visitReachMD.com where you can Be Part of the Knowledge. Thanks for listening.