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With Your Host



**Roger Dooley** 

Welcome to the Brainfluence Podcast with Roger Dooley, author, speaker and educator on neuromarketing and the psychology of persuasion. Every week, we talk with thought leaders that will help you improve your influence with factual evidence and concrete research. Introducing your host, Roger Dooley.

Roger Dooley: Welcome to *The Brainfluence Podcast*. I'm Roger Dooley. Our guest this week is one of the pioneers in the neuromarketing industry. He co-founded the first full service neuromarketing agency, NeuroCo, all the way back in 2003. People call me an early participant in the neuromarketing space, but I didn't register my domain, neurosciencemarketing.com, until 2004. In 2005, my guest co-founded the first neuro-oriented PR agency, Mindlab International.

> Later, he was the second non-US employee at NeuroFocus, now a part of Nielsen Consumer Neuroscience Group. Currently, my guest is a consultant who helps companies craft marketing strategies that taps in the nonconscious motivations of the consumers. His new book is *Decoding the Irrational Consumer: How to Commission, Run and Generate Insights from Neuromarketing Research*. Welcome to the show Darren Bridger.

Darren Bridger: Hi. Thank you Roger, good to talk to you.

Roger Dooley: Well Darren, it's a real pleasure to have you on the show because you've been in the industry so long and you've seen it from so many different angles, I think perhaps more so than almost any other guest I've had. It's really

good to have you on board. When did your first interest in neuromarketing begin?

Darren Bridger: I would say it was actually in the late 90s, and the word neuromarketing didn't exist then. I was looking for a market research consultancy, and we had begun experimenting with EEG. I was working at time with David Lewis, who I believe you've had on your show before as a previous guest. He had the idea of using EEG as an advertising research tool back in the 1980s, but I think it was way ahead of its time then. The agencies just weren't ready for it back then.

> We were experimenting in the late 90s, and I think it was still a little bit ahead of its time. We had a contact from someone at Disney actually, the marketing director of Disney in London. His imagination was fired up by the potential of using EEG as a way to measure how engaging TV content was. We didn't end up using it with Disney, but a couple of years later we then decided to form a company with him. That was genesis of NeuroCo, which was a company that was using EEG and eye tracking and some biometrics in the early 2000s. That's how it started really.

- Roger Dooley: Very good. Of course Disney later on went on to have their own captive neuromarketing lab here in Austin, Texas for a while, which now-
- Darren Bridger: I didn't know that.
- Roger Dooley: Yeah, now it's morphed into an independent company. They were independent, I believe, but under exclusive contract for a period of time to Disney. Now they're doing other client work as well.

- Darren Bridger: That's interesting, yeah. We had one of the first neuro labs when I was part of NeuroFocus in Dallas, in Texas.
- Roger Dooley: I think Disney has always been kind of brain oriented. Their latest feature film from Pixar, Inside Out, has been pretty well received by neuroscientist. Obviously, you don't have little funny people inside your head arguing, but in terms of the science they talk about indirectly, it's actually not too bad.
- Darren Bridger: Yeah, I haven't seen Inside Out, but I think it's, from what I've heard about it, potentially a good way of thinking about the brain more accessible to children and to everyone who likes Pixar films. It's part of the big trend of popularizing understanding of the brain, I guess.
- Roger Dooley: Right. It's surprisingly good. When I was looking at that, I found a really old film they did. It was actually dating back to World War II, it was sort of a propaganda film but it had 2 halves of the person's brain fighting. One was this rational guy in a business suit, seem like an accountant, and the other was a caveman guy who was more interested, he saw a pretty girl and his eyes would bug out and so on. Again, that pretty simplistic view of how our brains work, but at the same time no wholly and accurate. If you start comparing it to a common system 1 and system 2, and some of the other splits between emotional and rational.
- Darren Bridger: Yeah, that's right. There would be many, many slight myths about the brain that have been popularized through the years. The right brain, left brain distinction, I think isn't quite what people think it is. I think we need to have this simplified models to enable us to understand something

which is so incredible complex that it's very difficult to grasp sometimes.

- Roger Dooley: Yeah, that's really true because any of these divisions, if you really try and break it down and compare it to brain imaging studies and whatnot, you find out, well, it's not that simple. At the same time, these simplified models do help people visualize what's going on and perhaps even make some decisions without needing to know all of the messy details.
- Darren Bridger: I think so, yeah. We get some of the way there, I think, yeah.
- Roger Dooley: Darren, you've been in the industry for as long as anybody or just about, so how do you see the industry as having changed and evolved up to today? How different is it today from what it was a few years ago or even 10 years ago?
- Darren Bridger: Well, I guess the industry started to take off maybe around 2005. At that point in time, it was really all about EEG or fMRI. Those were the 2 big technologies. I think people were looking at the industry at that time as being a battle between those 2 technologies and everyone was either in one camp or the other. Most supplies were in one camp or the other, and the big question is which would win out or which was the superior technology. I think there was some clients who were willing to jump in and experiment around that time, but I know there was also a lot of resistance or skepticism amongst many clients around then.

If you then fast forward to a few years ago, maybe 2 or 3 years ago, I think there's been a shift in the industry, firstly

towards using many more metrics or technologies. The big change, I would say now, at least the way that I look at the industry, is that it's more about online metrics, the things that you can measure in participant's own homes through their computer, through their webcams, through their keyboard, thus is things that require you to bring people into a physical location and fit them with senses. The number of ways of measuring things has really increased.

Also, the other way is that I think a lot of advertising agencies and creative agencies of all sorts have really woken up to the importance of being able to measure nonconscious consumer processes. I think it was popular books like *Nudge* and *Thinking, Fast and Slow* that really woke up the wide industry, made them start to think along these lines. There's a lot more interest in the area now and a lot more different methods to choose from.

- Roger Dooley: Yeah, I see the trend to in-home measurement using things like webcam facial coding and so on. What do you think about wearables? Are they going to be a big factor, things like Apple Watch, Fitbit, and different technologies? It seems like right now there are going to be millions of consumers walking around with biometric measuring devices on their person.
- Darren Bridger: I think that's a very interesting question, it's something that I'm very interested in. Ultimately, who can say whether in the next few years they will become a major tool for market research or not? I think the potential is certainly there. I think the real potential with wearables is they give you sensors that potentially millions of people

around the world are wearing. Your sample sizes could be potentially way larger.

Also, things like smartwatches that are connected or that have a potential for connecting to the web, that gives us the potential to cross-correlate, if you like, not only where the person is, so you could make measurements while the person is out in the real world, while they're out in the supermarket or the movie theater. You could also correlate their web activity with bodily reaction. You could potentially look at making correlations between what YouTube videos they're looking at, for example.

- Roger Dooley: It might open up a whole world of A/B testing on websites. If you could deliver half of your wired up visitors with one version and the other half with another version, you could not only see the behavior difference on the website, but you could also get some biometric feedback as well.
- Darren Bridger: I think so, yes. Obviously, web testing has already had that ability for a long time to do real-time reaction testing in terms of A/B testing and knowing where you're clicking and what kind of response rate you're getting from your opt-in forms in your sales pages and that kind of thing. The ability to add in some kind of attentional or emotional reading to that could give it a whole new dimension.

Of course there are a lot of potential problems with this. There are ethical issues, for example. People would have to feel there were some benefits for them in order to optin to this kind of testing. I think, as soon as you start putting sensors on putting people's body and measuring their nonconscious reactions to things it becomes more personal than asking them questions or just observing their activity on the webpage. People, perhaps, feel a bit

more guarded about that. Then again, young people these days are sharing so many things already on social media. Maybe their heart activity for example, may just be seen as one more thing to share.

- Roger Dooley: Certainly, I would think that at least some people would be willing to give up that data in return of something of value, whether it be something as costly as, say, a free Fitbit as long as you agree to these terms and conditions, even some of much smaller benefit that would go along with the fact that, "Okay, we're going to be measuring you here." People have signed up for some of these things even where they have to put on the remote EEG headset for small compensation and look at stuff. That's very intrusive and very user-intensive compared to just ticking a box that says, "Okay, you can measure this stuff."
- Darren Bridger: Look, the other interesting potential compensation for people, maybe to give them insights into their own reactions to things. Say for example, a lot of people are wearing smart watches in order to learn more about their fitness. It could potentially be applications that could be developed to allow people to learn more about their emotions.
- Roger Dooley: One more aspect of the quantified self, I guess.
- Darren Bridger: Exactly, yes. I think the potential is huge, but for this to work, if somebody can crack that, crack the idea of how you motivate people to take part, then I can see it working.
- Roger Dooley: What do you think of the academic research being done these days, Darren? I think that and the work that the Advertising Research Foundation has been attempting to

do to establish standards, do you think we'll ever actually have standards and either certification or approved best practices or something like that for these different techniques, or will this always be a secret sauce type of an industry?

Darren Bridger: I think the standards will definitely come. I think it's a very hard thing to get to because if you take anyone of the technologies, different vendors will be measuring things with that technology in different ways. They'll have their own research paradigms, so I think there needs to be more of a conversation, I think, between the academics and the suppliers, to understand exactly how the suppliers are using their measures in that kind of technologies.

> That's been a long time coming because the suppliers have tended to be, firstly, extremely busy and trying to concentrate on their client work. Secondly, as you hinted out, that a lot of suppliers see their measures as their secret sauce and they've been a bit reluctant so far to divulge all the details of how they measure what they measure.

Most of the good suppliers and there are some suppliers that are better than others, but most of the good suppliers will be basing their metrics on solid neuroscience and they will neuroscientist on team. They will be working from findings that had come from the academic world anyway.

Roger Dooley: Well great. I would like to talk about the state of the industry for the next hour or 2, but I do want to get on to some of content in your book. One of the things that I like about is that you, well, you deal with both sides of

neuromarketing. You spend quite a bit of time on human behavior. The biases built in to our brain, attention issues and so on.

Then after laying the ground work with that, then you get into comparing some of the technologies and techniques and so on, which I think is great, because I believe that even readers who are not about to fund neuromarketing studies because they're in a smaller organization, they're entrepreneurs or perhaps even a part of a larger organization but simply don't have the resources to fund studies based on their products revenue or the revenue in their space, they can still benefit a lot from the book just by seeing some of these things that they may be overlooking in their current advertising, everything from processing fluency issues and whatnot.

One technique that I had not heard about, this is just kind of a fun thing talking about processing fluency, I'll tell you what, why don't you explain a little bit about processing fluency and how that affects the ability of consumers to take some action, say, in a website or in some other vehicle.

Darren Bridger: Processing fluency, I think, is perhaps arguably the biggest or the most important concept from neuromarketing, in terms of how recommendations, insights are developed from neuromarketing results. What it is essentially is how easy it is to decode a webpage or a pack design or an ad design for example, printout design, our brains get very confused between things which are easy for us to understand and things that are familiar to us.

If we look at something and we can understand it very easily, it feels more familiar and we have this built-in bias towards things that are familiar. That's particularly strong for things that are unexpectedly familiar. The way that I usually describe this is if you see your neighbor outside of your front door, you don't feel particularly delighted or surprised necessarily because you're used to seeing your neighbor there.

If you bumped into your neighbor somewhere where you weren't expecting them, for example, at the airport, it might bring a smile to your face because it's essentially someone that familiar but seen in an expected place. There's a large potential for turning information that people expect to be complicated or difficult to understand into a more easily digestible format, because then it becomes unexpectedly familiar.

I think that's part of the reason why infographics, for example, are so popular on the web and people share them so much in social media and that kind of thing. They turn something which is you're used to seeing, in terms of dry statistics, and they turn it into something which is easy to understand in terms of visual.

There are many factors that feed into processing fluency or making something easier to understand, and those can be purely from a design point of view, so making a webpage or making a graphic or a design easier for people to decode. They can also be more from a behavioral economics point of view, so the very proposition of a product, you can make it easy for people to understand what your product is. Again, that has that same processing fluency effect.

- Roger Dooley: Right. One technique that you mentioned for analyzing the visual complexity of an image or, let's say, a webpage where you could capture an image, this is what I hadn't heard of before, which I find particularly clever if it works, is to capture an image in an uncompressed format, like a BMP file, and then resave it in a compressed format, like a JPEG file, and then compare the 2. A visually complex image will have lower compression than one that's visually simple. Does that really correlate in the real world? I really like the idea. I would like to believe it works.
- Darren Bridger: Yeah. That's an interesting take on it, because I don't think of it quite in that way. We use a tool that measures something called Visual Saliency, which is a software based technique whereby you can run an image through an algorithm which simulates the early first stages of the human visual system and it predicts where people's eyes are likely to be drawn on the image.

One of the things that it does is it gives you a reading for how complex that image is. As you correctly say, that that's effectively very similar to if you compress the image. If you take, for example, an image that is, let's say it's an image of a penguin standing in the middle of a very snow environment. The image is largely white and you just have a little penguin in the middle. That image is going to be way simpler than a crowd image, for example, that would have all kinds of colors and edges and outlines, et cetera. That is at a very basic level a way of deciding how complex the media is.

Then there are further layers to that, because if you think about things like pack designs, it may not be possible for

you to just have an image that is dominated by white space. You may have to include a certain amount of information in there. The way that you position the information, the way that you cluster things together can make it easier for people to decode.

Another concept which is that we often recommend to clients that when they're designing something like a pack design, they try to keep the design to having no more than about 3 or so visual clusters. Visual cluster is a grouping of different visual element together, so they could be text, they could be graphical elements. The reason being is that our brains evolve to be able to recognize groups of things up to about 3 or 4 without having to individual clock or count each to them.

The idea being is that when our brains were evolving out in the East African Savannas, we needed to weigh, a very quickly weighing up whether there were more predators or prey out there on the savanna than within our small hunting group. We can look at an array of things. If there's, say, 2 things, we instantly feel there's a twoness there, or there's 3 things, there's a threeness to it. You don't have to individually count them. If there are 5, 6, or 8, we have to start to individually count. It becomes a more deliberate decoding of what we're seeing.

- Roger Dooley: That's not dissimilar to the minimalist design concept that you here promulgated for web design of have no more than 3 choices. When somebody hits your page, don't give them 8 different places where they can go, give them up to 3, and they'll be able to process far more efficiently.
- Darren Bridger: Exactly. I think this idea has been something that is being developed in the design world over the last 100 years.

Anyway, it's been something that they've arrived at without necessarily understanding the neuroscience behind it.

- Roger Dooley: I think that's true of a lot of neuromarketing insights, that sometimes the brain imaging studies or whatever type of studies are performed, really more confirm what marketers or designers or other people have known for years. Now they provide some underlying rationale for it.
- Darren Bridger: I think that's true, and I think parts of what these types of measure do is they put a number to creative material. In a lot of organizations, the financial decisions will be made by the finance director or people who were trained in accountancy or economics and who are used to making very rational decisions on the basis of rational decisions on the basis of hard data.

In the past, creative people may have tried to convince them of the need to make a particular change for creative reason, but they haven't had the numbers to back up their intuitive sense of why that would make sense. I think neuromarketing measures are able to give numbers to creative things which haven't had numbers behind them in the past perhaps and hence given the more credibility perhaps in organization.

Roger Dooley: Right, that makes a huge amount of sense. I'm involved in a project right now that is sort of that theme of trying to get some numbers in science behind the gut feel aspects of it. Although designers can go on the other direction too, one of thing that I tend to bring up in a lot of my speeches is some of the great research, again, getting back to processing fluency on font choice where the designer

might choose a rather fancy font because it's attention getting and whatnot.

If that designer makes processing that information more difficult, it may actually translate into perceived difficulty of whatever it is the visitor or customer is being asked to do, complete a form, place an order, merely the choice of an attractive but harder to process font. It may make that action seem more difficult.

- Darren Bridger: Exactly, yes. I think all kinds of these priming or halo-like effects whereby we don't consciously realize that evaluation of a brand or the website is being biased by the fact that one little things may be difficult for us to understand, and then we think that the whole website might be difficult for us to understand. There have been experiments that show that where you give people recipes, I think maybe you've read about this before, in difficult to read fonts versus easy to read fonts, people would rate the recipe as harder to make if it's in harder to read font. People don't realize that they're being biased in this way.
- Roger Dooley: People would be totally unaware of that. The classic experiment was done by University of Minnesota where they ask people how long it would take to perform 2 simple exercises, half saw it in an easy-to-read sans serif, Arial font, and the other half saw it in brushy. The difference was phenomenal. It was like 15 minutes versus 8 minutes. Almost twice as long and the only difference was the font.

Darren Bridger: Amazing.

- Roger Dooley: Scary thought, when how many marketers leave that up to a designer, who basically is trying to make good design choices to look nice but may not necessarily have read the research.
- Darren Bridger: Exactly, and I think this is where you have to weigh up different considerations with what a design is trying to do. Often it's good to use more than one if you're researching these things. It's good to use more than one measure because, let's say for example, a font is being chosen to create a certain feeling or to create a certain personality to the brand, that may be more of a consideration than how easily it is to read. These things have to be weighed up one against the other.
- Roger Dooley: We jump back to the technical side in neuromarketing for a minute. One of the web-based techniques that's out there is automated facial coding analysis where the visitor's face can be viewed as they watch content like a commercial or TV show or something or even as they arrive at a website to try and figure out what they're supposed to do. Some of the newer techniques, they don't require special cameras. They can use a built-in webcam or film cam.

Personally, I'm just a little bit skeptical, I ran one of these self-demos and watch a cartoon for 30 or 60 seconds or something like that, and I basically flat-lined on it. My expression did not change as I viewed that content. How useful is that kind of analysis, do you think?

Darren Bridger: I think that's a good point, but even if you watch a young child watching TV, watching cartoons or something, they may be incredibly engaged with what they're watching, but often, their facial expressions are very neutral. Even

though they may be emotionally engaged, they're not showing it on their face. That's not to say that facial coding isn't a useful measure. You just need a large enough sample to collect enough people who are being facially expressive while they're watching whatever it is they're interested in, but that's-

- Roger Dooley: Hopefully they're representative of the larger population who just is less expressive like me. Generally, when I'm consuming content, whether it's on the web or on another kind of screen, I think it takes quite a bit to get me to change my expression. It's something really funny or really disturbing, but on book you say that a relatively small percentage of the people are facially expressive, but the advantage of doing this over the web is that there are a lot of people on the web.
- Darren Bridger: The other advantage is that when you're using these online metrics they're a heck of a lot cheaper than physically recruiting people to travel and come into a lab. You can recruit it but a far lower cost than you can in a lab study, even though you may get high quality data from a lab study.
- Roger Dooley: That's a good point, because if you were bringing people in to a lab, many of them might still be in that facially not very expressive category, you'd be bringing a lot of subjects maybe to get a rather small amount of data.
- Darren Bridger: That's possible, yes. One of the benefits though of a lab study is that you can really make sure that people understand the instructions for the test that you're asking them to do. You can make sure that they keep their face looking at the screen at all times and they're not being distracted by things they might be distracted by at home.

You can make sure that the person's face is well lit and those kinds of things, you probably have a high quality camera. You're right, yes, that's one of the limitations of facial coding. All of these measures have their own limitations and have their own strengths and weaknesses.

- Roger Dooley: Right. I think we can probably go on for hours here Darren, but let me remind our listeners that we're talking with Darren Bridger, author of the new book, *Decoding the Irrational Consumer: How to Commission, Run and Generate Insights from Neuromarketing Research.* I really recommend this book, not just an up-to-date instruction manual for planning neuromarketing studies, which is what it sounds like and it delivers on that promise, but also as a general guide to some of the principles that underlie these work. We talked about processing fluency, but there's certainly a lot more in there. Darren, how can find you online and your content?
- Darren Bridger: You can find me online at DarrenBridger.net, and there are links to my social media accounts on there, or you can find the consultancy I work of at Neurostrata.com.
- Roger Dooley: Great. Well, we'll link to those resources and any other resources we talked about during the course of our conversation here on the show notes page. We'll also have a text version of this conversation, and that will all be at RogerDooley.com/podcast. Darren good luck with the book and thanks for being on the show.

Darren Bridger: Great to talk to you Roger, thank you.

Thank you for joining me for this episode of the Brainfluence Podcast. To continue the discussion and to find your own path to brainy success, please visit us at <u>RogerDooley.com</u>.