**MAF:** [00:00:00] Welcome back to behavioral science for brands, a podcast where we connect academic insights and practical marketing. Each week we go deep behind some of the country's best brands to reveal the behavioral science that powers them. I'm

MichaelAaron Flicker.

**RS:** And I'm Richard Shotton.

**MAF:** And today we're uncovering the behavioral science that powers craft foods, the brand that started with very humble beginnings in 1903, that has grown to one of the largest food companies in the world.

Let's get into it. So Richard, Kraft macaroni and cheese is a staple of my American upbringing. I'm not sure about all Americans upbringings, certainly my American upbringing. Was it something that you knew about growing up in the United Kingdom?

RS: I knew about macaroni cheese, yes, but didn't know about Kraft.

So that is, wasn't, Kraft mac and cheese wasn't a beak. Was not a big, was not a big

**MAF:** brand here in the [00:01:00] UK, so for all of our listeners, let me give everybody a little bit of a zoom out on craft as a business and some interesting history on macaroni and cheese in general, because it has fascinating roots to both world wars, and then we'll get into some of the keys of how craft has used behavioral science insights to power a lot of their success.

So Heinz Kraft, uh, is now one company, the fifth largest food and beverage company in the world, and they have amazing brands, Philadelphia Cream Cheese, Oscar Mayer, uh, Kraft and Capri Sun. In 2023 to 2024 fiscal years, they reported 26. 5 billion of sales. So this is big business. And they have what they call their eight cornerstone brands, eight brands that do a billion dollars a year or more.

Kraft Macaroni and Cheese is one of their cornerstone brands. So we're talking about a lot of macaroni and cheese. In fact, a million [00:02:00] boxes of, uh, macaroni and cheese are sold. Each day across the world. It's a lot of macaroni and cheese. Um, but the history of how craft mac and cheese came to be is really quite interesting.

So craft as the original food companies founded in 1903 by James craft. Who purchased cheese in Chicago's Water Street wholesale market and then would cut it up and sell it to local retailers. And he secures a patent in 1916 for a way to sterilize cheese and keep it fresh for longer. Uh, so this is critical because as the U.

S. goes into World War I, having a way to keep cheese fresh longer means we can have cheese on the front lines in World War I. Then during the Great Depression, there's another, uh, leader, a St. Louis salesman, Grant Leslie, who has the idea, what if we take macaroni and we combine it with cheese? And so he [00:03:00] starts, uh, with Kraft in 1937, By taking, uh, boxes of macaroni and putting cheese with a rubber band on the outside, and you would literally make the macaroni, boil it, and then put the cheese in.

This is critical during the Great Depression and then going into World War II, because a box of, that would serve four servings of macaroni and cheese, was 19 cents. Or 1 food ration, so I mean, it was really an economical way to feed a family and it was delicious. And for a lot of those that were involved in the war effort, it was 9 minutes to make a meal.

So it was fast. It was tasty and it was very inexpensive. So. What started as a story of how we can use preservatives and how we can create a low cost meal obviously changes over time to the [00:04:00] 2000s, 2010s, and up to today where people don't want preservatives in their food and Kraft needs to make a decision and in 2016 they decide to remove yellow dye number five and other preservatives in the food.

So what started as the reason they became so successful eventually is becoming a detriment and they know they need to change it. What they do to change it is going to be part of our episode today and how they made it such a success when they changed the formulation and the taste profile of Mac and Jesus, they did it.

So that's one thing that we'll talk about, how they swapped out Yellow 5 and Yellow 6 and replaced them with paprika, turmeric, and other natural flavors, so that'll be super interesting. And then the other thing that we'll, uh, we'll dive into today is the way that Kraft has designed their packaging to really endear themselves and get noticed on the shelf.

We're gonna talk about something called the Paradola Effect.

**RS:** Yes, [00:05:00] pareidolia. Um, this idea that people tend to see patterns when none exist and pareidolia is a particular example. That is where we see

visual patterns. Got it. So, um, a plug socket might look like a face to us. Yeah, we often perceive faces or face like images when they're not actually, you There to all intents and purposes, and that is something that Kraft Mac and Cheese use really cleverly on their packaging to grab people's attention in the, in the retail environment.

**MAF:** Perfect. So we'll talk about how they made a massive change to their formulation and made it a success. And then we'll talk about, uh, this use of the pareidolia effect, uh, in their packaging. Uh, so let's get started. So starting on, starting on the story of how they changed their Add their ingredients and change the formulation you talk a little bit about this case study

**RS:** is a brilliant example of applying [00:06:00] behavioral science in action they had a dilemma that the, um, there was increasing interest in health in america so when they launched in 1903 processed was a fantastic word science of the future and then safety the cheese could, you.

Could kill you, you can catch diseases from, uh, you know, gone off cheese. So back in that era process was an unalloyed benefit. Now they're in a situation five or 10 years ago where people see preservatives as unnatural, unhealthy, and stuff that shouldn't be in your body. The problem though, is what. Kraft also very sensibly realized is there is a tussle in people's minds.

So they know they rationally shouldn't have this type of chemical in the body. But also people, especially in America, will come to maybe the different cultural differences. There is this blending between [00:07:00] tasty and unhealthy. Now that's not speculation. There's a wonderful study by Ragunathan, where, uh, this psychologist, uh, I think it's the McCombs Business School, we're associated with the University of Texas.

He serves people a Indian buffet and he gets their ratings of all the different foods. He's only interested in their scores for the yogurt drink, the mango lassi. And some of the participants, he says the mango lassi is a health drink. Some it's an unhealthy drink. And even though the participants are all given exactly the same yogurt drink, those that are told it's unhealthy rate it as 55 percent tastier than those that are told it's healthy.

People have a preconception, in America especially, and I think Britain too, that health food is going to be Poor tasting. And unfortunately [00:08:00] that becomes a self fulfilling prophecy. If we think something is going to be bad tasting, we look for evidence to confirm that we think is going to be unhealthy. Um, sorry.

If you think it's healthy, we assume it will be bad tasting and that. Often becomes true.

MAF: I mean, that's what the regolithin study is showing. Yes, yes,

**RS:** exactly. Point I keep on mentioning, I think Britain and America are interchangeable here, but it's not true in every culture. Uh, there is some evidence, it's only a one off study, but in France, you don't find this effect.

People don't assume how food is going to be untasty, but certainly I think in the Anglo Saxon world, Anglo Centuric world, there is this problem. So what craft realize is if they go out and tell people we've got rid of all the nasty artificial colorings and preservatives, people will probably say, yay, that's a good thing.

But when they taste it, Even if they've

**MAF:** already set their mind.

**RS:** Exactly. Even if the product doesn't actually taste any [00:09:00] different, they will assume it does and they will create in their own mind a problem.

**MAF:** So they go about to solve this by not telling people they made the change. Exactly. Not telling them publicly.

So what was the, what was the campaign that they ran?

**RS:** Yeah. So they changed the formulation. They remove the nasty chemicals and put in natural alternatives. Obviously legally on the ingredients, they

**MAF:** have to say,

**RS:** but no one, but not many people look at that in detail, but they make no public announcement.

They don't put a starburst on the front of the pack saying artificial to move. They don't have any TV ads, and then for considerable period. Let's say three months or six months, they maintain silence and then they reveal what they've done. They say they've created the world's largest blind taste test.

You've all been eating mac and cheese as you say, they're selling a million boxes a day. You've all been eating this. We've sold [00:10:00] 50 million boxes

and no one could taste the difference. And that. is a very effective way of avoiding this, um, belief that healthy food is going to taste bad. So there is a lovely study, um, Shane Frederick and Dan Ariely were involved in, which shows If you have to tell people a bit of what might be perceived as bad news, make sure they've tried the food first.

Um, so for their study, uh, they do this in pubs in Cambridge, Massachusetts, 388 pub goers. They give them a taste test. Do you prefer Bud or MIT brew? And some people that's all they're told. They drink these two beers and 59 percent prefer MIT brew. Now that. Might not sound that strange, but MIT brew [00:11:00] was Budweiser plus a few drops of balsamic vinegar.

So people actually prefer Bud with balsamic, at least in Cambridge, with a few bits of balsamic vinegar. Next group, same two beers, but they tell the people Beforehand, Bud or MIT brew, and we put balsamic vinegar in the MIT brew. Now, the proportion of people who prefer the MIT brew drops to

MAF: 30%. Now,

**RS:** putting balsamic vinegar is not a great thing in a beer.

People think it's going to taste awful, and they find evidence to confirm that. When they taste it, they're looking a little bit closer for an unpleasantness. Third group they test this with, so it's Bud versus MIT brew again. People sample both beers and then before they state their preference. So they've sampled the beers before they're asked to state their preference.

The researchers say, Oh, by the way, [00:12:00] MIT brew has bad stomach vinegar in. Now, if you give people the negative information after sampling, it doesn't have the same detrimental effects. It's not as. Stronger preference as completely blind, uh, rather than 59 percent preferring MIT brew, it's now 52%, but that is a hell of a lot better than 39 percent exactly, exactly.

So the point here would be if you feel like you have to reveal. A piece of negative news and I'm using negative news about healthiness in a specific sense. But if you have to tell people, make sure they sample it first and then reveal the information. Obviously, the Kraft Mac and Cheese campaign is a very specific way of doing that and it's on a grand scale.

But you could think about this on a micro scale at your local Costco. If you're sampling a low fat yogurt [00:13:00] or a ice cream with added vitamins, Get

people to try it before and then reveal the, that, that the health benefit, really small change in ordering, but can have a significant effect.

**MAF:** Because what we're doing here is we're helping to highlight that their perception of what they think will be the case because of the fact.

Is debunked when they tasted first so what we're doing is we're helping drive a wedge between a preconceived notion and the and the actual experience of the taste that they have on its own

**RS:** exactly they are you truly sampling the products. They then make a judgment about whether they like the product or not, and the negative information that comes later, because people have already formed their expectations, you negate the negative information to, well most of it, you don't completely remove the negativity, but you remove most of it.

**MAF:** So sometimes there's a change that needs to be made because your [00:14:00] brand's doing it, but this can also be valuable if there's, let's say, a legislation change or a reporting requirement change, and you have to make a change to your product, for example, having to remove sugar from, uh, from, from food or, or limit calories.

**RS:** Yeah, so in Britain, there've been some quite stringent taxes on soft drinks, uh, that have high sugar levels. And a lot of manufacturers, both in soft drinks and beyond, have thought about reformulating. Their products and in cereals, for example, where the legislation hasn't come in yet, but manufacturers are probably nervous about it.

Some manufacturers, if emblazoned their packaging with 10 percent less sugar and they have suffered in terms of sales, others have very gradually removed sugar. Now 1 percent a time in small increments of people don't notice they've kept that silent and they're the ones that have maintained their sales levels.

So. You can apply this, yes, in mac and cheese and the [00:15:00] removal of artificial color as there's lots of other applications in many different areas within food.

**MAF:** I love that because in the mac and cheese example, the case study really shows how you can use communication to help blunt the. Sales effects of having to make this change what you just explained with the cereal manufacturers is you can make changes over a period of time incrementally that can have a similar effect and of course you then time your messaging if at all

based on what's best for the brand so two different ways to solve a challenge like this

## **RS:** absolutely

**MAF:** so let's go to a commercial break and when we come back we'll get into the second behavioral science insight that craft to use brilliantly to help

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**MAF:** Welcome back to Behavioral Science for Brands, a podcast where we connect academic insights and practical marketing to help you grow your brand or business. Today, we're going deep on Kraft macaroni and cheese.

So Richard, before the break, we were talking about how Kraft created this great campaign of the. Largest blind taste test in the world to announce that they had actually changed the formulation of Kraft Mac and cheese before they made a big campaign out of it. They were removing unwanted ingredients like preservatives and in food dyes and replacing it with more natural ingredients and now we want to change our attention and look at packaging and specifically the way That [00:17:00] craft uses the macaroni elbows, as we call them in America, um, to create more resonance as people are looking at the shelf.

Can you describe this a little bit more?

**RS:** One of the features of the packaging is a macaroni elbow is on the packaging, but it's upturned and it bears resemblance to a smile. And that is a smart feature to have on packaging because. Even very subtle patterns like that tap into a effect called pareidolia, which is a tendency to see visual patterns.

Uh, When none or give meaning to visual patterns, when none really exist. So one of the main versions that is seeing faces and things, you know, you look at a cloud, you see a person, a burnt bit of cheese on cheese and toast, you might see someone's face and faces are remarkably [00:18:00] important from a psychological point of view, because they attract our attention.

Now from an evolutionary perspective, you were much more likely to survive if you quickly identified a face, whether it was on a predator like a lion, a potential mate on a human. So we are hardwired to spot faces very quickly. And to the extent that even a random selection of items, you know, that might have two dots and a line, we will interpret very quickly as a face.

Now that. Isn't just based on an evolutionary argument. There are some wonderful studies that have tested this in the world of advertising. So Guido is at the university of Salento in Italy, and he showed participants 36 pairs of ads. So one ad might. You know, have a bland claim about Twix, you know, eat a Twix, get some energy.

The [00:19:00] other ad would be eat a Twix, get some energy. And there would be two mugs of coffee with a banana below. So they were using a pareidolian image. It looked a little bit like a face and Guido shows these pairs of images. For a couple of seconds or less to the participants and 80 percent of the time, the image that had the face like pattern got more of the attention.

Interestingly, when he cut the data. It was on the shortest exposures that that effect was greatest. So when people just saw the ads for less than half a second, 92 percent of the time, more of their attention using eye tracking went to the pareidolian image rather than non pareidolian image. Guido's argument backs up this idea.

The our attention is drawn to faces or face like images and that's something the [00:20:00] craft exploit the little macaroni elbow on the packaging looks a little bit like a face and in a crowded busy environment like a store that's enough to grab people's attention and it's those small variations you know that little bit more attention that It's gonna make it more likely that someone spots you on a busy shelf and if they spot you, they're more likely to put you into the basket.

**MAF:** Yeah, and I think this really drives home the point that we have to be thinking about how we adjust all elements of our brand and sometimes in our podcast, we're talking about big things that you would need to change. Offers, pricing, this is something while it's never a light matter to change your packaging, the way you display your elbow, your pasta elbows, you know, arguably there's, there's lots of ways that are all equally about good.

This gives you a bump up in immediately capturing people's attention that can really make a big difference.

**RS:** Yeah, absolutely. And there's a danger of ignoring [00:21:00] these small gains. Um, we've just had the Olympics and. Britain have a good heritage in the last 20 years, been very successful at cycling. The most famous coach in the world of British cycling was, uh, Browsford.

And his whole theory was around marginal gains. It was the idea that lots of tiny incremental improvements in all sorts of areas added up to a massive advantage over the competition. So, um, you might think, well. Turning a pastoral bow from a sideways angle to an up angle that make it look like a face isn't going to change the business.

But if you start doing enough of these psychological interventions across your packaging, your messaging, your install, then cumulatively, they can have a great impact.

**MAF:** What comes to mind for me, Richard, is that it's not just that it looks like a face, but that it looks like a smile. And to me, If you think about other [00:22:00] smiles, McDonald's with their, with the smile, uh, Amazon, where they connect A to Z with a, with what looks like a smile, you know, using the pareidolia effect, but not just to get to recognition of a face, uh, what comes to mind in America, there's a, um, famous tutoring group called Kumon and noticeably, there's no smile, smile.

On that, on that logo, it feels different. The emotional connection is different when you have a smile.

**RS:** Yeah. And the. Interestingly, if you look at a watch ad, so pretty much any fancy watch, uh, Tag Heuer, Rolex, whatever it is, the, if you look at the actual watch itself, the time is always set to like five to one, you know, the hands for the hour and the minute are shaped to look like a smile.

So that's something watch ads have been doing for, for 50 years. I hadn't thought about the fact that it was a smile. That's an interesting one. I've not seen any [00:23:00] studies that. Uh, prove the effectiveness, but it's a nice touch

**MAF:** in the realm of, in the realm of trying to create an emotional feeling in people, rather than just saying the emotion.

Um, at least my human experience, if somebody's smiling at you, it's hard to not smile back. If you're looking at an image that's smiling, it's hard. To not see a little bit of levity or, uh, amiability, amicability in that smile, looking at

**RS:** you. And there's certainly evidence that if it puts you in a good mood and it might be a fleeting one, but you just need that fleeting moment during the window of purchase.

If you put someone in a good mood, they're more likely to notice ads. They're more likely to believe ads. They're more likely to like ads. So generating a small spark of positivity. That can be very powerful something for worth testing right [00:24:00] something

**MAF:** worth to consider and then always something worth testing something richard and i spend a lot of time talking about off camera and when we're doing work with clients is saying why not test what's the cost to give a test to see if it makes a difference in your business see if it makes a difference on your brand now changing packaging.

Taken very seriously before you make a change, but testing something in a digital ad, testing something on a small scale, a lot of opportunity to do that.

**RS:** And we've been talking about crafts with folks on packaging, but the Guido study was done with ads. There you go. And you mentioned online ads. That is an area where It's the most fleeting of attention.

There's some lovely work by a research company called Lumen, the show that most ads are seen for fractions of a second. So it's perhaps in that environment of online banner advertising, where trying to introduce a face might not fit with your creative style, but a face like object. That's much more flexible and it's a [00:25:00] small thing you can do to grab attention and frankly, if you don't get someone's attention, everything else is academic.

Yeah. You have the best message in the world. If someone doesn't see it and read it, well, what have you achieved? Understood.

**MAF:** As we come to a close, let's, like we like to do, recap some of the big things that, uh, we talked about in today's episode.

**RS:** So we started by talking about in American Britain, there is an association with health.

Venus and poor taste. And unfortunately the Ragunathan study shows that that belief becomes self fulfilling. If you tell some of your products really healthy, they're going to assume it tastes worse. And that will the actual taste of their experience will become worse. So if you are a product that is removing sugars, removing fats, removing salt, the first question you have to ask yourself is, do I have to tell people maybe The best thing to do is to be silent about it.

So you don't [00:26:00] have that negative effect on your taste. The second experiment we talked about was the, uh, the beer test between Bud and MIT brew. And the learning from that is if you're going to tell people that you've become healthier, make sure you get them to try the product first, because those negative expectations won't have the damaging effects in your product if people have already experienced it.

So if you're doing sampling, Have a healthy product, get people to try it and then mention the health message. You'll get the best of both worlds. And then the third and final part we talked about was the power in advertising of using a human face or images that look a little bit. like a human face. This is the idea of pareidolia.

We are hardwired to direct our attention to faces because this was either for most evolutionary history, a threat or an opportunity. So [00:27:00] think about in your creative, can you introduce one of these pareidolian images, especially if you're in low attention environments like online or like in store, because it's a great proven way of increasing the probability that people direct their attention towards you.

**MAF:** Perfect. As we like to do. We like to wrap up learning a little bit more about our hosts. For me, a favorite childhood meal would have been like a hot dog and macaroni and cheese on the side. Uh, yeah, that would be a very comforting home cooked meal of my childhood. What, from your side, knowing that macaroni and cheese was not, uh, a home cooked thing?

So, corned beef hash. Okay.

**RS:** Now, is that a familiar dish? Okay. So, it's corned beef out of a tin, uh, fried up with onion, and normally potatoes. Yes. But It was my dad's kind of dish [00:28:00] that he would do once a month, uh, and he always used rice. So corned beef hash, corned beef, onions, rice, and quite a big dollop of tomato ketchup.

That, that would bring back childhood memories, especially of my, of my father who had limited abilities, but that was his one signature dish.

**MAF:** It would, it would look, all people would make Kraft macaroni and cheese, but it would be one that even those of us with the least amount of culinary ability. Would look to me.

**RS:** Yeah.

**MAF:** Amazing. Well, that wraps up today's episode. If you found what we had to say today, interesting, we'd love to ask you to leave us a review and follow us on YouTube by following us on YouTube. It helps us reach more. Uh, the live video that we're, that we are on camera with and, uh, all the show notes, visit the consumerbehaviorlab.

com. And finally, if you're interested in learning more about the [00:29:00] consumer behavior lab, please visit the consumerbehaviorlab. com. To stay up to date with what we're doing beyond our podcast, uh, follow us on LinkedIn, uh, the Consumer Behavior Lab on LinkedIn, uh, make a connection with us there. Until next time, I'm Michael Aaron Flicker.

And I'm Richard Shultz. Thanks for joining us. Can't wait for you to hear next week's episode.