

Annual Reviews Conversations Presents

An Interview with Susan T. Fiske

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Interviewer: Jordana Bieze

Host: Hello, and welcome to Annual Reviews Audio, a podcast from Annual Reviews, where insightful research begins. I'm your host Mia Lobel. On each episode of our show, we'll speak with a top scientist in fields ranging from astrophysics to sociology. In this episode, we'll talk with Susan Fiske, professor of psychology at Princeton University, and editor of the *Annual Review of Psychology*. Dr. Fiske specializes in social neuroscience, studying cognitive stereotypes and emotional prejudice. She spoke with Jordana Foster about her work on gender bias.

Interviewer: Dr. Fiske, thank you for joining us.

Susan Fiske: My pleasure.

Interviewer: Recently, I know that one of your studies has received quite a bit of media attention. What can you tell us about that study and the way that different audiences have reacted to it?

Susan Fiske: The background for this is that we've done a series of

studies looking at the worst kinds of prejudice because it turns out there are different kinds of prejudices, and the worst kind of prejudice in our research turns out to be people's attitudes and reactions toward homeless people and drug addicts. And all over the world, people's reactions toward poor people are extremely negative, and people—particularly for homeless people—other people's reactions are that they're disgusting and to be avoided, and they react to them as if they don't have a mind, and they don't want to think about the person's own experiences.

That's very understandable because essentially, when somebody's in that dire circumstances, it's really hard to think about the person's situation because it is so awful. And when you see people in public who are apparently homeless and/or panhandling, you really don't want to make human contact with them because they might want something from you, and you might be contaminated or in danger. So we had done some neuroimaging studies combined with regular sort of behavioral studies on people's reactions to these most extreme out-groups, and they all were consistent with this idea that people were not treating them as fully human.

This research relates to a broader body of research that people are doing these days on how people might treat other people as less than fully human and how that then allows you to treat them in ways that are not really acceptable in terms of human rights and so on. So a collaborator and friend of mine, Jennifer Eberhardt at Stanford, said to me one day, "You know, I bet that we would find that sexist men, when they're reacting to women who are scantily clad, would not treat them as fully human." And my reaction to that was, "Oh, well, yes, maybe that's right."

But then she said—and she has done some neuroimaging work herself—she suggested that what would get activated would be more sort of instrumental parts of the brain, and in particular she said, tool use areas of the brain. At that point, my own reaction was, "That's really gross, Jennifer. I can't believe you're saying that." But her own research has been very provocative and interesting. In particular, she's made links between how people perceive black Americans and how they perceive apes. And so she's no stranger to controversy, and her science is good. So it's not just that it's controversial for the sake of being controversial.

At that point, I proposed this study idea of Jennifer's to a graduate student here at Princeton, Mina Cikara, and Mina is interested in various social justice--related things including sexism. And Mina said, "Cool. Let's do it." So we decided to do the study to see how men who are sexist, in particular, would react to pictures of bikini-clad women. And the predictions were that they would have kind of instrumental reactions to these women because their main orientation to them would be to use them. And the secondary prediction was that there would be some kind of objectification or dehumanization of these women, but it would be different from the reactions to the homeless people because the homeless people you want to avoid, but if you're a guy on the make, a bikini-clad woman is somebody you want to approach.

And so it wouldn't be the same, but some aspects of it might be the same, for example, not really being terribly interested in the other person's mind because mainly she's a body to you. And there are evolutionary reasons to think that this might be particularly true of guys relating to women. I'll go into that in a minute. Mina and I spent quite a lot of time developing the stimuli. We had to find pictures of men and women fully clothed or in bikinis, including the men in certain jock straps and the equivalent bathing suits. The pictures had controlled for everything. They had to be controlled for the posture, the facial expression, the attractiveness of the face, the attractiveness of the body. No background information. Everything you can imagine.

So we spent a long time finding stimuli that would fit those specifications. Once having assembled that, we showed these pictures randomly mixed up with each other, so male, female bikini, fully clothed. We showed these pictures to 21 self-described heterosexual guys, college age, and their only job was to look at these pictures, and the pictures appeared for 200 milliseconds,

which is extremely brief exposure. Basically, you don't have time to move your eye around the picture; you just see it and it goes away. And their job was simply to say, "Yes, I saw the picture."

So then afterwards, they had a surprise memory task, and their job was to look at a whole bunch of heads of faces of men and women, cut off at the neck so they couldn't tell who was wearing what or not wearing what, and they had to say whether they had seen that face before. And there were no differences between conditions on which faces they remembered. So faces were not where people's attention was going, but then the other thing we did was we showed them pictures of bodies cut off at the neck. So they weren't seeing anybody's face, but they were trying to decide which bodies they had seen before, and the guys were extremely good at remembering the bikini-clad women, but not good at remembering anybody else.

They were substantially better for women in general and people scantily clad in general, but this adds up to the bikini-clad women were the best to remember. So the reaction to that usually is you're surprised. You know, that's not a huge big deal, but it's very interesting. But what was particularly interesting is that this superior memory for the bikini-clad women was correlated with brain activation in two areas that are of special interest to us given our hypotheses. One was, as Jennifer predicted, an area that is activated when people look at tools that you can manipulate with your hands. So in effect, activating the idea of manipulating this body. And the other area that was activated was a sort of premotor area that activates when people have intentions but not when they're actually acting on something.

So that was consistent with the idea that to the degree they remembered these bodies, they were activating these sort of tool use, instrumental areas. The other final bit of brain— Well, actually let me take a little pause, a slight digression. When you're doing neuroimaging studies, you have to be careful not to over interpret the meaning of activations in different areas, and it's important to go back and forth between brain data and questionnaire data and self report data and so on. So draw conclusions. So we ran a study looking at people's immediate implicit associations between on the one hand, bikini-clad women and first-person action verbs like grab, handle, use, and so on. So this would be the person is saying, "I act on this bikini-clad woman."

In comparison to looking at pictures of fully clothed women and third person action verbs, implicitly saying, "She grabs, does, holds, uses," and so on. And what you find is that for men, the association between these bikini-clad women and first-person verbs is very fast as is the association between fully clothed women and third person verbs; she's acting. You don't get the same result for female subjects. If anything, it's slightly the reverse. So in effect, what this says is that agency is being vested in the male viewer as he's looking at these pictures of bikini-clad women, where it's being vested in the female fully clothed person to a greater extent than the other one.

So this is consistent with the brain data. It's the kind of thing we like to do, is to move back and forth between brain data that are consistent with a theory and then behavioral data that provide converging evidence for the story that we think makes sense.

Interviewer: And when we're talking about the brain data, we're talking about functional MRI for the most part?

Susan Fiske: Yes, yes. We are. So the final result, just to finish this, is related to the dehumanization idea which is that the kind of dehumanization we have found with the homeless people was that there's a part of the brain called the medial prefrontal cortex, which reliably comes online when people think about other people, or see a picture of another person, or think about somebody's traits. Also the self, but mostly it's about, well, also the self, who is also obviously a person. And what you find is that all kinds of out-groups act—and in-groups—that is, groups that people

belong to and don't belong to. Regardless, even if they don't like the groups much, this part of the brain comes online.

It does not significantly come online for people looking at pictures of homeless people. So that's what led us to call it a kind of dehumanization, and then we have behavioral data that corroborate that. Well, with the bikini-clad women, the same thing happens but only for men who scored very high on a scale of hostile sexism. And the hostile-sexism scale is one that views—where people score high on it—view gender relations as combative and that women are trying to control men sexually and in other ways and compete with them.

And so you know obviously most men don't score high on this scale, but this particular group of guys was more likely to deactivate this social cognition related brain area as if they really did not want to know about her mind and her intentions and her traits. Whereas guys who score low on hostile sexism did activate this medial prefrontal cortex, which is correlated with thinking about another person as a person.

Interviewer: Even when they were looking at bikini-clad bodies?

Susan Fiske: Yes, yes, and was, I mean, this is all about the bikini-clad bodies, right? It did not happen for the women who were fully clothed. So for us, the moral of the story is that guys looking at women in bikinis—certain thoughts immediately come to mind related to acting on those bodies, and that's probably why the women are wearing bikinis in the first place. So they're in some sense objectifying themselves, and that's people's prerogative to do that. But it's important to know the effects of this. So it's important not to kid yourself about wearing provocative clothes and what you're provoking.

And it's important also to think about it, I think, in terms of spillover into the workplace. So if you have a workplace where there are pin-up pictures or calendars or magazines scattered around, then there's going to be spillover from looking at these pictures to relating to women in the office. I've seen legal cases like this, discrimination cases, and also there's been research showing that if guys look at—there was an old ad back in the 80s called the Swedish bikini team, which was some beer ad. And so it had a bunch of women in bikinis, and in one study, they showed people this ad or a control ad, and then they had them interview a woman for a job, and the guys who had seen this bikini-filled ad didn't remember her qualifications.

They remembered what she looked like, and they had sort of salient in their mind, were demeaning sex-related terms, like instead of a woman, they would think of "babe" or more less mentionable things, and they would scoot their wheeling chair, their desk chair, closer to her when they were interviewing her. Sort of invading her space. My point is just that these are ways of illustrating things that people think may be true, but if you don't document them scientifically with a well-controlled experiment and control groups, you don't know whether they're true or not. People have a lot of common sense about these kinds of ideas, but until you do the experiment, you don't actually know if the common sense is right.

A friend of mine says, "Common sense is often neither common nor sensible."

Interviewer: Well, so has that been generally the reaction that you've found to these findings? Have people reacted as if, "Well, that's sort of common sense anyway?"

Susan Fiske: We've gotten two or three kinds of different reactions. There's one big set of people who react to it as, "So, you needed to do a study to show this?" That's fine, that's their prerogative, but I think a lot of this kind of research is sort of obvious in retrospect but not totally

obvious before you do the study. As you think about my reaction to Jennifer's prediction. Another set of reactions was— Oh, well, the most extreme reaction actually came from a Muslim women's newsletter where they were suggesting that this was evidence that women should be wearing burkas, wearing the complete covering so they wouldn't provoke men. Another Muslim women's website commented that actually our data don't show that because you don't get these reactions to women in regular western clothing, only to women in bikinis.

So that was an interesting set of commentaries. But the one that really moved me the most was a colleague who heard me present this paper at the AAAS meeting in February. She said it made her cry because she felt like this was something worth knowing about how men and women sometimes relate and that she was just pleased that science could address it. We did get from other people that kind of benign and seriously interested reaction, but I have to say, it has been controversial. That's for sure.

Interviewer: What are some of the challenges in terms of—I know that there's been a lot of media interest in this study. What are some of the challenges in sort of trying to balance what the media wants to know about versus what you as a researcher may think is most significant about your findings?

Susan Fiske: The scientists like us are always way more cautious about what the meaning of the findings is. But for the media, their job is to make it interesting to people. So understandably, they want us to go way beyond what we can say with our data. From our point of view, science is incremental and we're building this based on a lot of previous work, both neuroscience and self report data where guys who are high on hostile sexism don't think that women have complicated emotions, for example. That's kind of degrading. So there's a lot of work on gender.

It very easily becomes controversial, and it's actually not my main area of work. It's just one area that I've worked in. But I do find that it makes the people most uncomfortable, and it actually makes me uncomfortable to talk about it in mixed gender settings because I think it's divisive. Men feel—they feel accused or attacked, and that's really not our intention at all. We think there are situations in which women have instrumental attitudes toward men. The media never asked us about that. They did ask us, "Wouldn't women do the same thing with male bodies?" And I don't think actually that's what you would get, except under really rare circumstances.

But my friends who are evolutionary psychologists suggest a hypothesis for us, which is that although it may be sort of men's impulse to be sexually involved with any sort of available, young, fertile woman from an evolutionary point of view, it would be women's immediate reaction to try to curry favor with slightly older guys who have status and resources. So the reasoning behind this is that women—if you think about just from an evolutionary point of view, in order to reproduce yourself, women have to invest at least nine months and probably longer because they're nursing and they're taking care of the baby, especially in as they like to say ancestral times.

Whereas a guy, theoretically, could just be promiscuous and reproduce himself. In fact, that's not the case. In fact, with human beings, there's pair-bonding and there's a big investment on the part of both parents. But the evolutionary psychologists like to think about the differences between the genders and how they relate to mating behavior. Anyway, as I said, I find it awkward to talk about this study because I'm not trying to paint men as villains and women as victims or women as saints, either. I just think it's one interesting example of a sort of in-group/out-group type of response that neuroimaging has led us to some different hypotheses than we would have done if we'd just been doing regular behavioral data.

Interviewer: So can you tell us a little bit more about how this particular study fits in with more of the general types of social neuroscience research, and maybe some examples of some other types of research that you're also doing?

Susan Fiske: I think part of what it fits in with in social neuroscience is a big interest in what's called theory of mind, and that is when and whether people think about each other's minds.

Interviewer: So can you tell us a little bit more about how this particular study fits in with more of the general types of social neuroscience research and maybe some examples of some other types of research that you're also doing?

Susan Fiske: I think part of what it fits in with, in social neuroscience, is a big interest in what's called theory of mind, and that is when and whether people think about each other's minds. It's really quite a complicated thing when you think about it, that you look at a person, say, on a bus and if you get interested you might think, "I wonder what that person's thinking." And, "Why does he look that way?" And "Why is he carrying the things he's carrying or dressed the way he's dressed?" And so you're thinking about the person's intentions and dispositions and preferences and so on, and this happens really quite spontaneously when people look at other people.

And as a social psychologist I find it fascinating that we do this so spontaneously, that we immediately start thinking about other people's invisible mind. And we act on our understanding of their intentions quite quickly. So what's exciting for me about all this is that I think they're basically only two things people figure out about other people right away, and the first one is the other person's intentions. You want to know if the stranger is well intentioned or ill intentioned toward you because that's a matter of survival.

So you're walking down a dark alley at night and somebody's coming towards you and you really want to know does this person have good or evil intentions toward you. And you can extrapolate that back to some ancestral past where you would've had to decide that pretty quickly. But also the modern office or the modern laboratory, there's a new person, a new hire who comes on the scene and you need to know right away whether this person has sort of cooperative or competitive intentions towards you because that determines whether you trust the person, whether you think the person is warm and friendly and sincere, or whether you think the person is really not to be trusted and you have to stay vigilant and on your guard about the person.

People like to say there's only two kinds of people, and that's true in a way, there are friends and foes. And people make these decisions within—when they see a face they can make that decision of trustworthiness in 50 milliseconds, and my colleague Alex Todorov here at Princeton has shown that, that decision is reliable within 50 milliseconds. So that even if you have 100 milliseconds or 500 milliseconds, that is half a second, it doesn't get much more reliable after that.

And what people are picking up on from a face, in terms of apparent trustworthiness, appears to be the ghost of happiness or the ghost of anger. So it's not really obvious, but it's very subtle and people respond to it. Now that doesn't mean they can't revise their impressions, but that decision gets made extremely fast. And it makes evolutionary sense. If somebody's coming toward you and they look slightly angry, you probably want to get out of their way. If the person's looking cheerful, then they're probably benign.

A moment ago I said there were only two kinds of people; there are actually four. Once you've decided somebody's intention you have to decide whether the person can act on the intention or not because if they can't act on it then they don't actually matter to you very much. A very young, extremely young child or an extremely disabled person or somebody who you just don't

see as having much ability to act as an agent, it doesn't actually matter as much to you what their intention is.

But somebody who looks competent, then you really care about what their intention is towards you because they might act on it, and they might be either helpful or harmful to you. So it turns out that this idea of thinking about warmth and trustworthiness and intentions, on the one hand, combined with the other person's ability to act on it, it really helps you to understand how people make sense of other people and social cognition generally. I mean I think it's a miracle that we make sense of each other at all, that people form impressions and act on them given how complicated the information is that we get from another person as a stimulus.

So some of the neuroscience data these days is looking at people's reactions to people who seem trustworthy or not, to people who seem competent and high status, or incompetent and low status. And so I think there's a lot of interesting work in that direction, both outside our lab and inside our lab. So that's the more general story that we're interested in.

To relate it back to the homeless people and the bikini-clad women, the homeless people are seen as neither well intentioned nor competent, so they're kind of the lowest of the low, they're low on both dimensions. And the bikini-clad women are seen as competent in the sense that they might have something that you want from them, they might hold resources, but they're not seen as—they're seen as somewhat threatening in some ways, in a way that seductress would be seen as threatening. They're seen as sort of worthy of attention for that reason.

Anyway, our more general program of research is to look at different kinds of prejudiced reactions and think about how people respond to people with different levels of warmth and different levels of apparent warmth and different levels of apparent confidence.

Interviewer: At this point in your career, the topics that you come up with for study are probably the result of the years that you've been doing research and the ideas that you've generated along the line. But for younger researchers it can be difficult to just come up with a topic to study. Can you talk a little bit about social context and as an example how that can influence the direction of a person's research and how that was, to some extent, the case for you?

Susan Fiske: Well, I think people starting their careers really worry about where the ideas come from. And I think there are several sources of ideas, but the most important piece of advice about this is to trust your instincts. That is, if there is something that strikes you as really interesting and important, then you really should think seriously about pursuing it because when you're doing science there's so much grief involved with it. It's really hard to do it. It's hard to do it right and you get a lot of rejection from journals and so on and so forth and so you really have to love what you're doing.

So the most important thing is you have to love what you're doing and think it's important because if you're working on something for any other reason it won't sustain you through all the trials and tribulations of doing research. But when you do love it, then when you get it right and when other people like it too then you feel particularly good about it.

And so part of what that means is that who you are informs what interests you, not that you should study yourself. I mean some people sort of study their own issues or their own group's issues; I don't think that's always a good idea. But there are both formal and informal sources of ideas, and I guess that's really what I'm saying, is that there can be formal sources of ideas where you read research literature and you say, "Why are they not studying this? They really ought to be studying this." And if that gap bothers you persistently then really that's something you should be doing to fill the gap.

At the same time, people's own social context, that is the identity group they belong to or the generation they're in or the social problems that are salient when they're doing their research, those will inform what you think is interesting. And so it's important to honor that, but then you have to do it—do the science. You have to do the literature review and see how it relates to things people have thought of before, and you have to operationalize your variables in a way where your working definitions of a concept will be convincing to other scientists. And you have to do the science honestly and analyze your data carefully and write it up in a properly cautious way.

But I think, I'm not sure if this is what you meant, but when you said context—but for me it's the context of a person's life that makes that person decide what's going to be interesting and what they have a passion for pursuing.

Interviewer: Can you give us some examples from your own personal experience?

Susan Fiske: Well, sure. I grew up in Chicago, on the south side of Chicago in Hyde Park, which is actually Barack Obama's and Michelle Obama's neighborhood; it's where Michelle Obama grew up and actually where their current house is, before the White House. That is a stable, racially integrated neighborhood. When I was growing up there, it's the University of Chicago neighborhood, so it's also sort of academic small town in some ways, but not everybody's associated with the University. Many people live there just because it's a nice place to live, or some of the surrounding neighborhoods, not others, but some.

Anyway, the point is that my experience growing up in this stable, racially integrated neighborhood was that the adults were pretty proud of that. My father was a psychologist who was particularly interested in measurement and philosophy of science and how you could measure subjective states reliably. And my mother was a community activist and full-time volunteer, although she was not the community organizing type of person that Barack Obama was for awhile. But she worked with community groups and helped them to get grants and to get the city government and county government to pay attention to them and so on.

And so she was a social activist who worked within the system. My own interest in social psychology came from the fact that I could do science that was related to social issues. And so for me, especially coming of academic age in the late 70s it was clearly the right thing to do; that this grabbed my attention and I could be passionate about doing this work. When your subject matter is people in particular, who you are makes a difference to what interests you. For me to move from Hyde Park to Cambridge, Massachusetts, which was much more segregated, and Boston in general, I loved that part of the country, but I also am acutely aware of how segregated it was at the time.

I got interested in stereotyping and prejudice partly as a result of that. The other reason I'm interested in prejudice against women in particular is that my grandmother, that is my mother's mother, and my great grandmother on that side worked for votes for women. And so they worked for women's suffrage and so there's kind of a feminist or women's rights legacy that I've inherited I'm sure.

Interviewer: When you decide that you have a subject area that interests you and you've decided that you're going to focus your direction of research that way, how do you make sure a research idea is going to be compelling to other scientists and people who might publish it in a journal but yet fresh enough to stand out from the crowd?

Susan Fiske: Well, that's an interesting question. One of the things I do is I keep up with the literature, and partly I keep up with the literature by editing the *Annual Review of Psychology*, reading a bunch of chapters in fields related—some fields related to mine. And I also edit the *Handbook of Social Psychology*, and so every 12 or 15 years I get all caught up on the field. And I've written a couple of textbooks too, one in social psych generally and one focused on social cognition.

So I read and keep up with what are the trends, and I think it's important to be aware of trends but not to jump on the bandwagon after the bandwagon's been built. I think you have to anticipate what is going to be the direction people are going because nobody's doing it, but it's an area that is ripe for discovery or rediscovery, frequently it's been studied before but it was 30 years ago and nobody remembers. And it's important to respect the older work too because frequently there are a lot of insights, but the methods have improved and the theories have improved and you can come back to it with some new perspective.

But I do think it's important not to do something just because everybody else is doing it because then it gets very crowded and you're likely to be scooped because if it's totally in the zeitgeist then somebody else will think of it too. And so you don't really want to be working on something in a very crowded area. That always makes me run the other way when I see that happening.

Interviewer: And if you're doing something that nobody else is doing then maybe there won't be the interest that you want?

Susan Fiske: My experience has been that if you do things that are interesting enough then other people—and you do—maybe the first study doesn't attract attention, but when you do several studies and say, "You know, this is a really interesting topic." Then other people say, "Yeah, right." And then they follow you, you know that's turned out to be a useful strategy for me. So, for example, I did some expert witnessing in gender discrimination cases, I've stopped doing that, but I did it for awhile. And, actually, I was interested in doing expert witnessing in any kind of discrimination cases but I only got called to do ones about gender, which is interesting all by itself.

But anyway, so I did some and so I learned a lot about different workplaces and how they operate, all the way from shipyards, all the way up through investment firms. And I read a lot of depositions about what went on in the workplace and so on. And one of the things I noticed in these cases is that the problems that people were encountering that ended up resulting in lawsuits were because, mostly, somebody's boss was not treating the person as a unique individual but treating them as a category member. And I thought about the social psychology research that was available at the time, and I realized that all the stereotyping and prejudiced research was looking at peers reactions to each other.

And as I thought about it, peers matter a lot, they can make you very uncomfortable and make you want to leave the workplace and so on, but they don't have hiring and firing and promotion power over you the way a boss does. So I thought about this and I sort of looked around the literature and nobody was really studying power at the time in social psychology. So I thought, "Well, maybe I should look at power." And so I began to study how power relationships can undermine people. People who have high power, precisely because they do control resources may not need to pay so much attention to people below them and so then they're vulnerable to stereotyping them and not seeing them as three-dimensional human beings.

And so I began to work a little bit on power and then other people thought that was pretty interesting and they jumped in that too, and then there's really—now there's become sort of cottage industry of people working on various issues related to power. And people have taken it

places I never would have imagined, so there's been some very original work done showing that when people are feeling powerful they see rewards everywhere, and see the world as a great place, and they feel cheerful, and they act impulsively, and keep the big picture in mind. And when people are feeling powerless they don't feel so good and they're inhibited and they're vigilant toward people who have power, which makes sense.

Anyway, so there's that kind of thing where the time that I thought about doing it, nobody else was doing it. I mean some people had in the past but not really in the way that I was talking about. And then not right away, but maybe 10 years later some very original work came along that was clearly influenced by what we had done in my lab, I mean they cited us. But they took it in a really different, interesting direction, and then I've been amazed at the explosion of research that's come along with that.

So you don't always know right away whether what you're doing is intriguing to other people, and you don't actually know whether they thought of it because they read something that you wrote or they just had thought of something and then discovered later that you'd written on the same topic. You never really know for sure. But you have to love it, you have to love what you're doing and think it's interesting yourself and hope that you can persuade other people to work on it too, eventually, but not till you get done with what you want to do.

Interviewer: So I know that one thing that you've been successful in doing, and I think this is your word, "hyphenating" within your research with social cognition and now with social neuroscience. Can you talk a little bit about how that happened for you and what that involves? Some of the challenges involved in being a "hyphen?"

Susan Fiske: The current wisdom is that some of the most important discoveries in science happen at the boundaries between two areas or when people combine two areas. And we were talking a moment ago about how people come up with ideas and how do you find something new to say. And one of the ways you find something new is by taking your base area and seeing what its relationship might be to a different area. So social neuroscience is an example of that, evolutionary psychology's another example of that, and so on.

When I was in graduate school the next big thing was cognitive psychology; basically the idea of thinking about what was in people's minds and trying to measure it as a scientist was out of fashion in the 50s and 60s within experimental psychology. Not so within social psychology, but in people who were studying learning, for example, it was all about reinforcement theory, which basically was not interested in cognition.

So when I was in graduate school the new, exciting thing was cognitive psychology and that whole revolution in viewing the mind as an information processor, not just simply a stimulus response processor, a reward-punishment processor. So that was exciting, and that seemed new, and for me as a graduate student that seemed like an opportunity to do something dramatically different. And part of being an academic is that you're an entrepreneur for yourself; that is yourself, and your ideas, and your methodological skills, and so on. And so part of what you're selling is yourself as a product. Coming out of graduate school I was at least sort of dimly aware that I had to have something to offer people or else I wouldn't get a job.

So at that time social cognition was the thing, and my advisor and I wrote really one of the first books called *Social Cognition*, which was combining social psychology and the new field of cognitive psychology. And it was not an easy thing to do as a junior faculty member to write this book because the field was not established yet, and we were helping to define what was in the field and how it related to traditional social psychology. It was not easy and the metaphor that comes

to mind was—is it was sort of like we were riding through town and being shot at from both sides at once. We were, my work was, our work, a lot of the social cognition work in general, it was seen as not sufficiently social on the one hand by social psychologists, and it was seen as not sufficiently rigorous or cognitive, not hard enough science by the experimental psychologists.

So neither side was really willing to accept us, but we persisted and survived and now it's a well-established field, nobody feels defensive about it, nobody's attacking it as a field, and it's established. Many years later, I feel like I'm having the same experience again with social neuroscience, only I'm older and less vulnerable in my own career. But I do feel like the first handful of people who decided as social psychologists to use the ideas and the methods from neuroscience, they were taking a big risk with their careers. It has paid off handsomely for most of those people I would add, they're doing quite well, but they had to be brave to do it. In effect, they had to learn twice as much, so they had to learn social psychology and they had to learn neuroscience, and so there was a lot of work and a big challenge.

But I think that they're thriving, and the area's going to be thriving despite the doubts by the social psychologists who think this isn't really social psychology and the doubts by the neuroscientists who say this isn't really neuroscience. But, in fact, a lot of that kind of work is the kind of work that most interests people, lay people, people outside the area. There are risks involved, but I think for the most part they've paid off.

Interviewer: Now you mentioned some concerns within social cognition that social cognition was not sufficiently social and that some of those same concerns arise with regard to social neuroscience. And I'm thinking social neuroscience, a lot of that involves very high technology, functional MRI; it becomes very technical in some respects. And, to me, it would seem that maintaining the social element, the social psychology element might be important, the more technical things become. Is that something that you're finding?

Susan Fiske: It's harder to keep it emphatically social if you think that social means, as I think it does, you're looking at the influence of people on other people. If you put somebody inside a magnet it becomes harder to make it really social. But there's certainly been work where people are interacting with other people remotely, and everybody's so used to interacting on computers and other kinds of remote devices. But it can be social too. To me, part of what's delightful about the neuroimaging work, a lot of the cognitive neuroimaging work, is that there's some hypothesis about what people are doing when they're lying in the scanner between tasks, and there's a sort of a default network that people have talked about, a resting state network.

So whatever the participant is thinking about, the brain areas of that activates. Well, this overlaps a lot with what turns out to be the social cognition network. My own hypothesis, which follows from work other people have done, is that what people are doing when they're lying there in the scanner between arithmetic tasks or word finding tasks or whatever the cognitive task might be, what they're doing in between is thinking about people. They're thinking about the experimenter, "I hope he knows what he's doing running this magnet." They're thinking about who they're going to meet for lunch, a fight with their girlfriend, whether they wore the right clothes today, so they're thinking about people and then they get interrupted from thinking about people to do the arithmetic task or the alphabet task or whatever it is nonsocial.

So I sort of like the idea that the default resting network is thinking about people, so what are you thinking about the most as you walk down the street or you're in the shower, whatever random moment. Some of it is solving a problem at work that is not interpersonal, but a lot of it is interpersonal. I think the technology can be ways of revealing how profoundly social we all are.

Interviewer: Dr. Fiske, thanks so much for joining us.

Susan Fiske: Thank you very much.

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