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A Super Useless Super Hero: The Positive Framing of Super Recognition

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Abstract: This article explores the rhetoric and discourses surrounding the face recognition spectrum, from total face blindness, or prosopagnosia, on one end, to super-recognition on the other. The spectrum places these conditions in opposition; I consider the unexpected experiences that people with these conditions share. I focus largely on the emergence of super recognition as a category, thinking about its associated super-power rhetoric and will contrast it with the history of prosopagnosia and its framing as a disability. For many, face blindness isn't all bad, and super recognition isn't all super; there are losses to placing and studying them in sharp opposition. The two extreme ends of the face recognition spectrum certainly have vastly different social, interpersonal, and emotional implications for those on either end and for those around them. People with prosopagnosia face very serious challenges that differ significantly in scope to what supers have to contend with. However, despite the fundamental differences, people on both extremes lack the expected correspondence between recognizing someone's face and having a relationship with her that characterize normative facial recognition. At both ends, face recognition fails to index the relationship of the recognizer to the recognized: it provides little to no information about the emotional connection between the two.

Keywords: face blindness, super recognizers, diagnosis, spectrum, police, Reddit

Introduction

Super recognizers (and yes, the name isn't great, but it was the best they came up with) are just that: people who can recognize others much, much better than the rest of us. It works in a couple of ways: super recognizers remember every face they've encountered, even fleetingly, so that if they again see a face they once passed in a crowd, or meet someone they served (or who served them) in a restaurant or store, or finally get introduced to that person who is clearly on the same bus commute, they will remember her. They will know that they have seen that person before, and they will know when and where. (Yes, it can get kind of creepy to be recognized by someone you don't remember meeting, or maybe never met. Supers know that too, or they learn it eventually.)

That's already pretty impressive, but that's only the tip of the superpower iceberg. Super recognizers can remember and identify people they've seen before, even many years later. That means that they both remember people over time, and that they recognize people even after they have aged significantly or changed how they look. They are good at recognizing adults whom they've seen as children, for example (Bennetts, Mole, and Bate 2017; "Face Blindness: When Everyone Is a Stranger" 2016). They recall all the faces that they've ever seen, even only fleetingly. They extrapolate how people change over time, accurately. That's great for reunions and maybe some service professions. But here's where it gets really useful: super recognizers can identify faces even when they are mostly obscured, extremely blurry or out of focus, or a small spot among many. Super recognizers are significantly better than the average population at *both* matching faces from photos and video to line-ups *and* remembering faces from line-ups in video and photo footage (Bobak, Hancock, and Bate 2015). The very best of the best have excellent short and long-term memory of the faces of others. Which is to say: super recognizers can identify faces (or eyes, or a nose, or ears) captured on camera, even when those faces are doing their best not to be seen.

That's extremely helpful for crime detection, if you happen to have hundreds of thousands of cameras around—for example, if you happen to be London. A *New Yorker* article from 2016 chronicled how Scotland Yard, London's police force, uses supers to track down hundreds of previously unidentified criminals who were captured on London's ubiquitous CCTV (Keefe 2016). As anyone who has watched modern British crime television (and if you haven't, why not?) knows, the United Kingdom is possibly the most camera-monitored place in the world.[1] London alone is blanketed with over 400 000 security cameras, containing 50% of the world's closed circuit television (Lindybeige 2017). The UK's massive surveillance system trades privacy for the promise of increased safety through screen monitoring at tremendous financial cost (*BBC News* 2015). These recordings are always being evoked and called up on said television procedurals, producing images that often catch the criminal in the act—or, in more interesting plot

twists, introduce another villain or another crime entirely. But in television, as in life, the recordings can only go so far: seeing an already-reported crime being committed on screen only confirms that it happened. It doesn't actually produce the criminal, merely a recording of him or her. That recording has to then be correlated to an actual and identifiable person whose photo is on file or who is known in person in order for the suspect to be apprehended, or even simply questioned (Lindybeige 2017; Noack 2016; Davis 2013). Face recognition software can match two photos taken in ideal conditions, including good lighting and full frontal facial views (like a mugshot) but has trouble correlating a single visible feature (like an eye or an ear) that is captured on video to a different photo. It often misidentifies gender, basic characteristics and even species, particularly amongst people of color, as Joy Buolamwini's work with the Algorithmic Justice League demonstrates ("Not Flawless - AI Confessions" n.d.; Buolamwini 2018).

Enter the supers. The formation of the "super recogniser squad" in Scotland Yard in 2012 generated significant media attention around super recognition. This, along with easily accessible diagnostic tests online, caused many people to discover that their uncanny knack for never forgetting a face actually has a name, and that the name is actually a diagnosis (Keefe 2016).[1] And that diagnosis places supers at the extreme end of the face recognition spectrum. Like all spectrums, there is a continuum with another extreme: in this case, face blindness, or prosopagnosia. While these two extremes are complete opposites, we have much to learn from both about decentering the primacy of face recognition as a measure of emotional connection between two people while challenging the binary opposition between the far reaches of a diagnostic spectrum.

This article will explore the rhetoric and discourses surrounding the face recognition spectrum, from total face blindness, or prosopagnosia, on one end, to super-recognition on the other. The spectrum places these conditions in opposition; I'll consider the unexpected experiences that people with these conditions share. I'll focus largely on the emergence of super recognition as a category, thinking about its associated super-power rhetoric and will contrast it with the history of prosopagnosia and its framing as a disability. For many, face blindness isn't all bad, and super recognition isn't all super; there are losses to placing and studying them in sharp opposition. The two extreme ends of the face recognition spectrum certainly have vastly different social, interpersonal, and emotional implications for those on either end and for those around them. People with prosopagnosia face very serious challenges that differ significantly in scope to what supers have to contend with. However, despite the fundamental differences, people on both extremes lack the expected correspondence between recognizing someone's face and having a relationship with her that characterize normative facial recognition. At both ends, face recognition fails to index the relationship of the recognizer to the recognized: it provides little to no information about the emotional connection between the two. That

doesn't mean that they *feel* the same way about strangers and intimates, but that they recognize them equally well or equally poorly. The most face-blind people can recognize no one; lovers and strangers are all visual strangers. Superreocognizers recognize everyone equally; lovers and strangers all register visually exactly the same. As an index to the depth and meaning of the relationship, for both prosopagnosiacs and supers, the face and its recognition are blank.

Blank Faces and Abstract Machines: How We Study Supers

What would it look like to live in a world where knowing people is unrelated to recognizing them? This, in a way, is the world of both the face blind and the supers; we can see how the rhetoric around these conditions draws from the rich tradition of theorizing the meaning of the face. These theories provide important insights into the histories and social meanings of face recognition, which contribute strongly to the rhetorics around face blindness and super recognition and what they mean.

Deleuze and Guattari argue that faces are universally imposed – over imposed – upon us; these "imperial machines" are subject to social formations and are themselves created and read through a variety of abstract exterior signifiers. The features and colors that we imagine we see overdetermine the subject as it "facializes" her. Faces are read through the dominant white, male, Christian face and are measured as increasingly racist deviations from that ideal. Deleuze and Guattari argue for the dismantling of the face in order to resist overcoding identity and to allow space for other semiotic systems, arguing that faciality engulfs language (Deleuze and Guattari 1987, 187–88; Tutt 2012). In a romanticization, they point to the figure of the schizophrenic as the site of the dismantling of the face.

There are other approaches and other ways to de-center the primacy of the face as the index to identity (Pearl 2019). The facialization system is a direct counter to the Lévinasian notion of the face as a call to ethics. For Lévinas, recognition of the face of the other is moment in which ethical obligation to that person arises. But Lévinas is not concerned with knowledge of the other; rather, for him, the notion of face exists beyond any particular or specific face (Lévinas and Lingis 1969; Pearl 2017). It's not about recognizing *a* face, but rather seeing the humanity of the person before you. From the face blind to the super recognizer and in between, the face remains indexical to humanity; in that sense, it is ethically meaningful across the face recognition spectrum. Recognition of the face is non-indexical to specific personal relationships at the extremes, but it remains an important signifier of human-ness, and human obligation more broadly.

If we approach face as Goffman does, as a cultivated marker of social status and public image, the face becomes abstract, less about specific physical features than careful self-

fashioning (Goffman 1955). Goffman's face is fundamentally relational and modulates with interactions in a system in which everyone, regardless of face recognition ability, participates. Which is to say: face as a concept and social system remains deeply meaningful as a semiotic site of action and interaction across the population, even if its recognition as a collection of features may not always be. The extremes of face recognition don't challenge the role of the face as a powerful signifier of identity and sociality. Goffman's use of face as a metaphor speaks to the special status of the face and its recognition as an index to identity and relationships; for the face blind and the supers, that special status does not apply in the same way. While they also attend to the metaphorical aspects of face, for them, the face can never be only metaphor, highlighting the different kinds of work that go in to connecting a face to the broader system of identity, sociality, reputational capital, and relationships. And yet: the face blind and the supers, as much as anyone, see people and recognize their humanity.

Face blind people separate the face and its features from some of the Deleuzian abstract signifiers, including gait, style, voice, expression; in so doing, they offer valuable insight into other ways of approaching and relating to others (Pearl 2019). The face is not the only source of recognition (of relationships, of humanity, of reputation.) We all rely on other identificatory markers to a certain extent, especially when dealing with unfamiliar kinds of faces, known to psychologists as the CRE, or cross race effect (Tanaka, Kiefer, and Bukach 2004). We are all worse at recognizing the faces of races other than our own or those we see regularly, but we are not all as good as the face blind at compensating. There are costs to these extra skills: it can be really hard to be face blind, though people's experiences differ widely. But there are also, as Jenny Edkins emphasizes, advantages: the face blind are not bound by traditional judgments of attractiveness, gender conformity, racial hierarchy (Edkins 2015). By not recognizing faces, there is much they are able to see. In memory, faces for the face blind are blank: this opens up space for other codes, other indices. Supers, who lie on the extreme other end of face recognition, also open up the possibility of decentering the face: while it is not, for them, blank, their recognition of a face is in no way tied to their relationship to it. They rely solely on features in the first instance: on the level of recognition they too do not code the face through the abstract machine of exterior signifiers.

The two sides of the face recognition spectrum share much: the meaninglessness of face recognition as an index to depth of relationship; the difficulty of identifying and naming the condition; the need to self-consciously learn social cues to compensate for their recognition abilities. On both extremes, there is what I call *diagnosis without disease*, creating subjects rather than patients: there is no treatment, no medical insurance implications, no real impetus for patient mobilization and advocacy beyond raising awareness and providing support (Epstein 2016). This isn't –yet—a social movement: not

until there is something clear to be gained (Epstein 2008; Taussig, Rapp, and Heath 2005). The researchers benefit, of course; they need these subjects to further explore something that is hardly understood to date. The collaboration remains largely unidirectional; these not-yet-patients are not yet co-producers of the conditions, in the sense proposed by Sheila Jasanoff (2004). Which isn't to say that identification of the condition doesn't matter to those who are diagnosed, as we will see: it does, hugely, helping the face blind to change their self-image and to understand the challenges they've faced. Naming matters, as Ian Hacking and others have shown, and it alters things in the world: the interaction of the person and the label fundamentally changes both sides and can create something that did not exist before (Hacking 1995). The label of "super" calls a whole set of powerful associations into being; so, too, do the labels of "disability," of a "spectrum." With the introduction of the supers, the face blind get recategorized as no longer pathological or damaged, but remain a medically-motivated and research-created identity category (Epstein 2008). Once diagnosed, prosopagnosiacs and super recognizers occupy ambiguous categories of medical affinity and biosociality: at one extreme, there is no treatment or cure, and at the other, there is very little obvious application. But the naming alone, and the ritual of testing, establishes a category and reinforces a kind of "patient brain" that helps call identity into being (Rabinow, n.d.; Dumit 2004).

Of course, the stakes are much higher and the challenges much greater for the face blind, but that doesn't mean we should ignore the psychosocial consequences of being a super. We do ignore them, as I show, partly because of the culture of diagnosis and disability: when something is understood to be a lack, we look closely at its disadvantages. When something is a superpower, we think much more about how to monetize and apply it. We don't always stop to ask: is it so super? Being a supertaster, for example, *isn't* (Crosby 2016). That's the trap of what I call *spectrum thinking*: while there is great space within a spectrum for flexibility, the extremes remain binary poles. And if one thing is bad, the other must be good: as Anna McGuire has argued, people associate the extreme end of the autism spectrum with negative and even violent behaviors and sociality, with the notable exception of savants, who can be thought of as supercrips with extraordinary abilities (McGuire 2016; Harnett 2016). But supers are not supercrips, because they are not, by definition, disabled. When it comes to that which is framed as a disability, a deficit, an absence, popular attention is quick to point out what is bad, and how it deviates from (and contributes to) notions of normalcy (Mitchell and Snyder 2014; Davis 2010). Spectrum extremes are rigid, and their labels are sticky. And oppositional.

To explore the academic approach to studying super recognizers, I examined the published papers on the topic in the scientific literature; there are no studies to date on the psychosocial implications of super recognition aside from evaluating if they have identified their ability and classifying it (Bobak, Mileva, and Hancock 2018, Phillips et al.

2018). As I turned to popular representations of the ability in order to understand how it is discussed and rhetorically framed, I searched for every mention of super recognition in news media and television. News articles fell into three broad categories: they reported on the discovery of the condition in 2009; discussed the use of super recognizers in Scotland Yard from 2012; and touted the availability of online diagnostic tests so that anyone can see where they lie on the face recognition spectrum. In all of the articles, super recognition was presented as a kind of super power, or super human skill; this was echoed in the television presentations, which featured super recognizers doing astounding feats of identification. I also examined the television features on super recognition and analyzed their presentation of and rhetoric around the skills and how they can be applied. These shows highlight the consolidation of super-ness and criminal detection specifically, and doing *something* applied with this skill more broadly, further underscoring the binary between face blindness and super recognition.

A few key super recognizers are featured across many of the news articles and television shows: you'll see their names below. Their perspective is important, but so is that of people who have not yet been identified or diagnosed. To understand how *they* describe and articulate their experiences of super recognition before and while it is identified, I turn to a Reddit thread in which many people discover that they may indeed be supers; this is an enormously valuable insight into what issues they consider as they process this information. Their discussion of their past experiences and interest going forward are incredibly similar, underscoring themes of social awkwardness and monetizability as they figure out that their creepy knack has been studied and named.

What's in a Diagnosis: A Brief History of the Face Recognition Spectrum

While there are reports of face blindness dating to antiquity, including a series of studies from the nineteenth century, prosopagnosia was formally named in 1947 by Joachim Boadamer. He wrote an important case study of two individuals whose acquired condition was, he showed, distinct from agnosia (Ellis and Florence 1990). However, it wasn't until quite recently that most people who had the congenital, rather than acquired, form even knew what it was, or were able to identify themselves within it (Sellers 2010). The early 2000s saw a significant growth in lab research: according to the prosopagnosia research consortium at Harvard, UCL, and Dartmouth, "few prosopagnosiacs [had] been intensively investigated," at that time, but "the internet has made it much easier for research and prosopagnosia to make contact," a trend that seems likely to continue with "an increased amount of research in the near future ("Prosopagnosia Research Centers at Harvard University and University College London" n.d.)." The consortium's website, www.faceblind.org, has a list of media articles about prosopagnosia; the earliest one they show dates back only to 2004.

It took 62 years after prosopagnosia was named for super recognition to be identified clinically in a peer-reviewed publication, in part for similar reasons: people just didn't realize they were particularly unusual, so they did not connect with researchers and doctors around their abilities. They knew they were rather good at something, and better than most people around them, but they didn't actually know that it was a *thing*. Neither did the researchers who worked in face recognition, who thought that face blindness was a syndrome or lack rather than the extreme end of a spectrum. It wasn't until 2009 that Harvard researchers Richard Russell, Brad Duchaine, and Ken Nakayama named the first four clinically acknowledged supers—who, in fact self-identified. These four presented themselves for testing after hearing about the lab's prosopagnosia research and claiming they manifested the opposite condition (Russell, Duchaine, and Nakayama 2009). They were right.

With the self-identification of supers, face recognition was reconceptualized as a spectrum; a major neurological approach was overturned through people knowing themselves and their abilities, rather than through brain-scanning or lab tests. Many scholars had speculated that these abilities existed prior to the first identified cases (Lavole 2009; Keefe 2016). Until that point, face blindness was categorized as a syndrome or pathology that a very small number of people had. With the reconfiguration of face recognition as a spectrum, researchers reframed their understanding of what face blindness is and how many people have it. That's how spectrum thinking works – with the entire population now situated on the face recognition spectrum, everyone falls somewhere, though in this case the bottom tail is fatter. There are more ways to be bad at recognizing faces than to be good at it, so there are fewer supers than there are people who are, to some degree, face blind. The spectrum allows for greater nuance in studying the degrees of face blindness, or indeed face recognition generally. Rather than something one either has or doesn't, one has a varying degree of ability. This is somewhat normalizing for those on the extreme ends, framing face recognition like any other ability or skill that has population variance.

Nonetheless, in practical terms, it is the diagnosis that matters, not the fact that it lies on a spectrum (Goldhill 2016). Naming matters. It calls associations into being (Hacking 1995). It creates categories of affiliation and identity (Epstein 2008). It creates a concrete index that grounds a set of behaviors in an explanatory (and communicable) frame. Naming can be reassuring. Naming can help. Both ends of the spectrum have struggled to identify their face recognition abilities as being extreme, and, indeed, diagnosable. The stakes for that inability have been much higher for the face blind: they just thought that others were much better at recognizing people, and that they themselves were dumb, or not trying hard enough, or were deeply socially unfit. The recent publicity around prosopagnosia from the 2010 publication of psychologist and writer Oliver Sacks' essay in *The New*

Yorker about his own face blindness, and the proliferation of diagnostic tests online in the last decade led to a huge alleviation of pressure for many (Sacks 2010). Their inability had a name. It was real. They weren't just being rude or not trying hard enough. Dori Frame, who acquired prosopagnosia following an adolescent head injury, said in a *New York Times* health film that "when you put a name to it, it is the biggest relief of your life. It's kind of a weight lifted off you because you know you're not stupid or scatterbrained or not paying attention" (Toral 2011). Oliver Sacks underlined the interpersonal stakes for being able to identify the condition: "People do think you may be snubbing them or stupid, or mad, or inattentive. That's why it's so important to recognize what one has. And to admit it" ("Face Blindness: When Everyone Is a Stranger" 2016).

In a *60 Minutes* interview in 2016, Sacks said, of face blindness, "It is not usually a complaint of people. People do not bring it up…One sort of assumes that other people are the way one is." Fellow face blind interviewee Ben Dubrovsky chimed in, "It never, ever in my life occurred to me that people would look at a face and just get it like that." Jo Livingston echoed these sentiments and underscored the personal and social stakes in being unable to do what so many others found easy: "I believed that I was not good with people but I had no idea of the reason. I just thought I was stupid." It was only when Livingston read an article about prosopagnosia that she presented herself to Brad Duchaine's lab for testing, and, indeed, confirmation of her condition ("Face Blindness: When Everyone Is a Stranger" 2016).

Like Livington and Dubrovsky, many supers are still figuring out they, too, can put a name to their condition – it's a newly recognized diagnosis with even newer online diagnostic tools. It's hard to reflect that face recognition isn't just a matter of having a good or bad memory, that other people have a magical ability or are just a bit bad at something seemingly basic (Ramon et al. 2016).

The diagnostic history of super recognition teaches us a great deal about how we identify and name conditions, and what we consider problems or abilities. While the diagnostic tools for face blindness and super recognition were quite similar in the first instance, it took 62 years and 4 individuals to self-identify for the latter to be identified following the naming of the former. Even though both ends of the extreme were hard for people to note in themselves, the one that caused significant social challenges was studied significantly earlier, as were the challenges themselves.

The recognition of faces mobilizes a whole set of relationships around identity, reputational capital, and the very nature of being human. Living in a sea of blank faces may have its advantages; it certainly has much to teach us about not judging others by how they look. And living in a world of infinitely variable faces can teach the same thing:

when every feature is fundamentally unique and unforgettable, they all become equally meaningful…or meaningless.

The world of the super recognizer is a world of exquisite and sometimes overwhelming detail, in which strangers glimpsed for a moment are established in memory equally as much as someone encountered every day. Prosopagnosiacs live in a world of virtually indistinguishable—or perhaps blank—faces, in some cases unable to differentiate by sight their mother, lover, best friend—or even *self*—from a stranger. Sacks recounted, "I've sometimes had the experience of apologizing to someone, and realizing it's a mirror" ("Face Blindness: When Everyone Is a Stranger" 2016). On both sides, there is a lot of social deception, but with a huge difference: super recognizers learn to pretend they don't recognize people, and prosopagnosiacs try to pretend they *do* recognize people.

But the face blind can't always fake it, unlike the supers. It's a lot easier for the supers to get away with pretending not to remember fleeting encounters than for the face blind to succeed at pretending to recognize their nearest and dearest. For most, it's hard to be face blind; it's hard to be in public with face blindness, and it's even hard to be in private with others with face blindness. When it comes to thinking about the interactional stakes for the face, Goffman was right. Dori Frame reflected on one of the practical social implications of recognizing no one, ever: "I always enjoy being around strangers. And I notice I like to move a lot, I like to travel, I like to be in an environment where I don't know anyone. That's when I'm most comfortable is when I'm in a sea of strangers" (Toral 2011). Because she is always in a sea of strangers, a world of blank faces that tell her nothing about her relationship to them. If she knows for sure they are indeed strangers, she doesn't have to worry about failing to recognize someone, which is the source of her significant social anxiety, common to people with face blindness (Toral 2011; Yardley et al. 2008).

Supers also live in a sea of visual information that is detached from intimacy or emotion. For them, like the face blind, face recognition alone is a meaningless indicator of prior relationships and connections. But while face blind people may seek out crowds in order to avoid the pressure of recognition, for the supers, that is simply never possible. There are no visual strangers, just faces that immediately become indelible from their brains (Rabin 2009). This is, for the supers, the normal way of being in the world, just as never recognizing anyone is standard for the face blind. Jennifer Jarrett, one of the subjects of a *60 Minutes* story on face recognition and one of the original four supers, echoed the lack of need for deep connections in her super ability: "I never forget a face. I don't need an emotional attachment to someone to recognize them" ("Face Blindness: When Everyone Is a Stranger" 2016). London police super recognizer Andrew Eyles expressed the same sentiment in different terms to the *Washington Post*, emphasizing that from a recognition

perspective, loved ones and strangers register exactly the same: “I might only deal with (someone) once. But it would be like looking at a family member or friend” (Noack 2016).

There are social and relational implications to these equivalences. We don’t know what they are and they are not being examined, because the stakes seem to be quite low: supers are doing just fine. Current research is more interested in the following: identifying the age at which super-recognition is established; looking at eye-scanning patterns; and scanning the brain to see activity during recognition (Bennetts, Mole, and Bate 2017; Bobak et al. 2017; Elbich and Scherf 2017). But supers are not simply the highest end of the face recognition spectrum, with just this one advantage. Rather, like the face blind, super recognizers have developed a whole host of accompanying or compensatory mechanisms to deal with their extraordinary ability. And they may well have deficits that have arisen from not having to have strong relationships with people in order to recognize them. Alongside the insights around labelling we can learn from examining the rhetoric around super recognition, there is much to be learned from studying how supers form relationships, how they consume media, and what their experience of recognition is like. That’s not lab science, and can’t be explored through scanning the brain. But it has important implications for the role of the face in human communication and interaction. Studying together the way both extremes form emotional connections could play a significant role in unsettling the primacy of the face as the locus of recognition of the other as human, and as the seat of identity. It would also reframe spectrum models by thinking challenges, abilities, and adaptations together to understand exactly what the face does not tell a super. There has been a great deal of exploration as to what the face means to a face blind person, and the answer is: very little. That is, in a way, also true of supers.

I’m IMDB: I Must Be a Super

But supers are super at something rather useful, in a rather specific context.[2] And the word “super” clinches it: that which is super must be useful.

It's not so easy to match a picture to a person. Prior to the establishment of the super squad, the UK’s CCTV didn’t result in many apprehensions: experienced criminals hid their faces, avoided cameras, or simply could not be identified due to the poor quality of the images. Face recognition software didn’t work most of the time, and when it did produce a result, it was often subject to significant racial and gender bias (Buolamwini 2018). There are also logistical challenges to making identifications from images: there are a lot of people out there, and not all of their details are on record with the police. And the images are not always clear, especially in the case of professionals who know how to obscure or turn their faces to avoid the cameras (Lindybeige 2017). People in face-matching jobs – customs and immigration agents, police officers – perform around as well as the general population in matching faces to photos – which is to say, not very well.

Numerous studies have found that error rates tend to be between 10-30% (Wirth and Carbon 2017). Face recognition software doesn't always do much better; it is prone to significant programmer bias, particularly around race. Face matching systems do very well with mugshot images, which are taken under ideal conditions with full frontal shots and good lighting; other kinds of photos, which may have poor lighting, unusual expressions and body positions, and strange angles, are much more difficult to match to a person or other photo (Orcutt 2016). Supers tend to focus on one feature, and so are unaffected by these error factors: as we'll see, they consistently do much, much better than face recognition software in correlating London's poor quality CCTV images to both live people and mug shots.

But what's a non-British super to do? Outside of London, there just isn't a huge market for super recognition beyond appearing on game shows and news spots, and occasionally being borrowed by various police forces (Noack 2016). It is a cool skill, and over 3 million people to date have taken the test to find out if they belong in the super category ("Are You a Super Recogniser?" n.d.). Many suspected that their abilities were outside the norm already, but absent an obvious application, there seemed no point or path to finding out if they were really (or clinically) unusual. The stories that supers tell about their recognition experiences are eerily similar: they talk about the moments of recognition that, they eventually learn, others find creepy, and which they thus learn to suppress. They describe their abilities to extrapolate and age people over time (also, it turns out, experienced as weird) and their really quite satisfying ever-ready answer to the question: where have I seen that actor before?

To learn more about their stories, I turned to a Reddit AMA (ask me anything) thread with Dr. Ashok Jansari, a Goldsmiths, University of London professor and super recognition researcher. It is one of the only sites as of now where super recognizers have consolidated to discuss their abilities, and there is little to no communication between supers themselves; instead, they mostly ask questions of Jansari. The supers have not (yet) formed around an identity category; they don't need to for advocacy, treatment, or support. That may be changing slightly with attempts to monetize these abilities: supers are starting to find each other to help find jobs, for example with Superrecognizers International, a UK-based business devoted to placing job placement for supers, largely in security positions.

Reddit is an anonymous and moderated site, so I used the singular "they" for gender designations aside from Jansari, who has publicly identified himself. Not all of the AMA material here is strictly relevant, so I have grouped the comments based on theme and applicability, and left the grammatical constructions and typos as I found them to make it easier to read through without interruption. There was a great deal of similarity amongst

the reactions of posters to Jansari's explanations: so-called symptoms of recognition came up repeatedly with people who thought they might be supers.[3] I was particularly interested in the experiences of those who did not yet have the label of super-recognition alongside already identified supers as a way to understand if the label itself matters beyond an initial sense of relief and enlightenment. Largely not, it turns out: no one quite knows what to do with the information or the ability.

Nixplosion asked, "What are some of the 'symptoms', for lack of a better word, of being a 'Super Recognizer' that you've been able to ID?" They continued to list their own indicative experiences, noting that "Maybe Im reading too much into it but I may be/have [superrecognition]. Ive been able to, for a long time, recognize people I havent seen in years…or recognize say, an actor who was a background/one off character in a film I saw a long time ago and be able to point them out in another film where they are also a backgrounded/side character." Jansari responded that these were in fact classic signs, saying that "You are 'full of symptoms'! Yes, those are basically the things that people tell us – that they recognize people that they only knew as kids, that an actor who has a bit part in the background of a scene is recognized, that they meet someone very fleetingly and then remember them totally out of context a few years later." Anecdotes aren't enough though: while Jansari acknowledged that "you sound like a super :-)," the doctor made sure to ask "Have you done my test yet?" (Dr_Ashok_Jansari and r/Science 2016). Jansari needs more supers to study; other researchers also need supers to staff their growing security and face recognition businesses.

But it isn't clear, or wasn't to people with these abilities, just what the value of super recognition is. Reddit user FlandersFlannigan wrote about being "extremely gifted with recognizing faces," and that "[f]riends and family have even recognized this about me and they call it my useless superpower. Not only 'because it very much useless' but it is 'even embarrassing sometimes'." FlandersFlannigan explained that "I can't tell you how many times, where I'll talk to someone and be like 'Hey [name], we briefly met 10 years ago while you were out on a morning jog.'" Responses to this kind of interaction are as most of us non-supers would predict: "9/10 times I'm met with the *creeped out* face." Now that FlandersFlannigan learned that "this is a thing," which "I'd never thought," their next reaction after "This is so weird" was to try to figure out how, exactly, to make the superpower a little less useless by asking, "What do people with this ability typically do for work?" (Dr_Ashok_Jansari and r/Science 2016). Super recognizer Moira Jones would also very much like to know the answer to that question, writing, in a piece for *The Psychologist*, "If anyone reading this has any thoughts on how, or where I might apply this skill, please do let me know." She had only recently realized that there may be specific possibilities and potential because only "now [that] I know I have a very specific talent, I am eager to put it to good use" (Jones 2013).

Reddit poster Afgangsta was also relieved to discover that their ability had a name, writing that “Ive always recognised people that I’ve met once in my life and then seen them again after, lets say 5-7 years later.” But recognition is only one part of what others experienced as creepiness: “Not only do i remember their face i remember the conversation we had, if we had any.” And, again, “99% of the time they are freaked out as to why i remember, so i tell them i have a good memory but they still look at me weird.” To avoid freaking people out and being looked at weird, “now even if i run into someone i don’t say that i remember you incase they think I’m a stalker or something.” Here, Afgangsta reflects that people expect to have some kind of connection with those who recognize them; supers are outliers in not needing one. Like FlandersFlannigan, Afgangsta was relieved to have a category for what to them was natural but to others might seem stalkerish: “Its great to know that there is a name for this ability: Super-Human. Nice” (Dr_Ashok_Jansari and r/Science 2016). Indeed.

Nixplosion, FlandersFlannigan, and Afgangsta’s descriptions of their abilities and the challenges of people’s reactions to them echo across the thread. Many, like Afgangsta, describe developing coping mechanisms to avoid making others uncomfortable, which is something they’d had to learn over time, not initially realizing that their recognition abilities were out of the norm. iamambience wrote, “Its nice to never forget peoples faces, but I learned early in life that 'regular' people find it weird that you can remember them if you only met them once before, and time has passed in between.” Here, iamambience noted two key symptoms of super recognition: the recognition itself after only brief interaction, and the retention of that ability over time, which requires not just recalling the face in question, but aging it. Again, people react with wariness at having been recognized, as “[t]hey read too much into it, and think your last encounter meant more to you because you didn’t forget them.” (Dr_Ashok_Jansari and r/Science 2016). iamambience referred explicitly to the ability to recall faces without any meaningful emotional connection. For most people, recognition is the result at least in part of some kind of memorable or unusual or powerful aspect to the encounter, particularly if it is singular and fleeting. For supers, this is simply not true: they do not need any kind of tie, deep or otherwise, for someone’s face to be seared into their brain. That can, as iamambience pointed out, be awkward. They recall a “funny story: Over the past 13 years I have on four occasions run into a stranger I once talked with on a bus. I freak him the fuck out every time” (Dr_Ashok_Jansari and r/Science 2016). (Though by the fourth time, the stranger might remember iamambience because of being so freaked out, an example of the kind of strong emotion that supers don’t need to remember and then recognize faces, but often elicit in others.)

For Redditor eunonymouse, there were professional disadvantages to the ability. They “worked in retail and would frighten customers by remembering them from months ago.”

As a way to cope, “I now usually pretend not to remember people, makes life easier.” Lamzn6 agreed, saying that “I’m a super recognizer and I have the same experience. I have to pretend like I don’t recognize people.” PmknSharkLatte chimed in that “This happens to me as well!” It’s uncomfortable all around, and “I feel bad though because I find that most of them don’t remember me,” so “it might be better to just pretend that I don’t recall meeting them” (Dr_Ashok_Jansari and r/Science 2016).

The hard parts of being a super almost never come up on TV. That’s not an accident.

It’s Totally Worth It (But Is It?): The Rhetorical Framing of Superness

Part of the positive perception of super recognition has to do with the use of supers in crime detection. It’s a great narrative: super skill lets super sleuths track down bad guys, triumphing where the technology fails. It’s also not false: when chief of Scotland Yard Mick Neville distributed CCTV pictures to his force back in 2007 (a full two years before super recognition was clinically identified and tested), some of his officers immediately made more than 15 identifications from the grainy pictures (Lindybeige 2017). Super recognizer officers identified 197 people from CCTV following the 2011 London riots, many of whom were only partially visible due to face masks, poor photo quality, and partial or profile pictures (Davis 2015). The strength of super recognizer identifications is so efficacious that with the evidence unearthed after the identifications are made, three out of four cases reach prosecution, as opposed to the one in five rate for traditional apprehensions (Lindybeige 2017). The seemingly unsolvable case of the murder of 14 year-old Alice Gross in 2014 had a breakthrough when a police super recognizer was able to correlate a person visually captured biking on a toe path to someone caught on camera in totally different clothing buying alcohol at an off-license (Lindybeige 2017; WalrusRider 2017). The super squad also played a key role in the recent identification of the Russian Skripal poisonings in Salisbury in March 2018 (Medeiros 2018). While the bulk of super recognizer identifications happen in London, other international cities are now paying attention and even borrowing these unique officers. Following the train station assaults of women in Cologne in 2011, German police worked with the supers from London to identify the assailant and the victims from a large number of suspects visible in the video footage (Noack 2016). Supersecurity is going global: researcher Josh Davis is currently working with a number of international police forces and criminal justice agencies to set up super recognizer units in various contexts. He’s had to create new diagnostic tests to account for different racial configurations across the world; the original tests use largely white male subjects.

It works. As a way to catch criminals, the super recognizer unit (formally established in 2015) works (Lindybeige 2017). And if Gary Collins, a super with London’s police force

profiled by the *New York Times* in 2015 “almost was punched” now and again because “‘I think sometimes I stare a bit too long, but I can’t help it,’” it’s probably a decent trade-off for being “off the charts,” so extraordinary at recognizing faces that he excels at his job beyond all expectation. And if “he deliberately lives outside London to avoid running into wanted faces from his beat,” or has to “cut short an outing to the mall with his sons when he recognized a gaggle of gang members while buying sneakers,” it’s worth it for what he calls “the gift.” Like other supers, it was hard for Collins to name his ability. As he said, “‘I always recognized people, but as kid you don’t know…you just think everybody is like you’” (Bennhold 2015).

But of course, almost nobody is like the supers, as far as we know. The clinical understanding of super recognition is still very limited, and often changing. In Ansari’s words, “The work on super-recognition is EXTREMELY new in research terms – the first paper was published in 2009 which in research terms is barely an eyeblink!” (Dr_Ashok_Jansari and r/Science 2016). There is much to be learned, from the technical and neurological questions around visual processing and the fusiform area of the brain, to the psychosocial and political implications of these abilities to cross-racial and cross-gender visual recognition (Golby et al. 2001). There is also much to be learned from how supers form relationships, and how they understand faces encountered both interpersonally and through media.

Super recognition is, of course, a very useful skill, even with the awkward (but not debilitating) social dynamics that supers have to learn to navigate. There are practical implications in terms of where supers live, what they do professionally, and how they navigate public space. There may be other sorts of challenges as well. So, too, may super recognizers have some arenas they never had to or may even not be able to develop. In the AMA thread with Jansari, bavarian _creme wondered if, indeed, such deficits exist, recognizing the simplistic narrative around super recognition and probing further. They stated, “Of course super-recognition sounds like a super power, but I imagine it’s not that simple.” bavarian_creme got more specific, asking Jansari if “you learned something about the negative effects super-recognisers could experience due to their way of perceiving other people?” In particular, “Of psychological or social nature, that maybe even affects their day-to-day lives in some way?” (Dr_Ashok_Jansari and r/Science 2016).

The short answer Jansari gave was, essentially “no.” The longer version was more like “not yet.” The very long version was that it was a good question, in that “in some areas of research where people have an ‘ability’ that others don’t have, we look to see if this comes at the ‘cost’ of something else.” Jansari explained that for people with synesthesia, the “enhanced skills in SOME areas” may have led to them being correspondingly “weaker in others.” But “since super-recognition is at a very early stage of research, it is

difficult to comment whether there are any weaknesses associated with the ability at the moment" (Dr_Ashok_Jansari and r/Science 2016). This is good, because we like our super heroes invincible, with just a tragic flaw or two to make their stories all-the-more impressive (Winterbach 2006), just as we like our disabled heroes to be supercrips, and all others to be villains (Harnett 2016). But there is a loss here in this binary: both supers and face blind have unique ways of understanding faces and identities. We should examine these ways together.

I Just Play One on TV

Supers have drawn a lot of media attention, including a series of television spots from news magazines like *60 Minutes* to the Fox game show *SuperHuman*, amongst others (Keefe 2016; "Face Blindness: When Everyone Is a Stranger" 2016; "Watch Superhuman: Season 1, Episode 5, 'All Parts Extraordinary' Online - FOX" n.d.). These media outlets are highly diverse in nature, and yet they almost all followed a remarkably similar format in telling the story of the supers. The model is designed to maximize the impact of this extraordinary skill. It centers on the basic task of getting the supers to identify people they have interacted with briefly, or even not at all, only passing them in the street or catching them out of the corner of their eyes. The supers are told at the outset that they are meant to find a face in the crowd, either on the streets or in a studio. They are given just a few moments to look at the faces or to wander around the spaces, and are then asked to locate specific people. And there is always, *always*, a trick: either the targets add a hat or change their clothes, or perhaps audience members change their seats while new people are added to the group, as others are removed (Great Big Story n.d.; Davis 2015; WalrusRider 2017).

This raises the stakes from showcasing a merely impressive skill to something truly super. Something superhuman. Something totally worthwhile and something totally positive. Something that should be applied in daily life as soon as possible, ideally in service of making the world a better and safer place. That's what superheroes do. To underscore the larger picture, commentators and hosts always talk about there being few or no places for people to hide because *the supers never forget a face*. The targets are civilians, but the message is clear: criminals, beware (WalrusRider 2017). Everyone is always floored. The hosts, the audience, the targets: without fail, they all express deep admiration and shock that the super can do precisely what she was supposed to do. The shock is also part of the structure, to emphasize for those watching that this isn't a trick that the show itself is part of, and that the skills are genuine. And genuinely impressive, if even jaded television personalities can be that impacted. The follow-up is quite vague, however. In absence of a clear career path or application for super skills (outside of London or with the security placement firm Superrecognisers International), these television shows, much like the supers themselves, don't know quite what the next steps should be. There isn't an

obvious professional or practical application, so the shows present parlor tricks with an underlying narrative around superheroes, leaving it to the audience to connect the dots.

Little or no attention is paid to any potential personal challenges the supers have as a result of their abilities beyond briefly mentioning the moments of social awkwardness, soon avoided by suppression, of recognizing people they don't know. This small, humanizing detail serves to acknowledge that there are social implications to the ability that may not be ideal, but these are still entirely manageable and ultimately not really harmful. Unlike for people with face blindness, the social awkwardness that supers encounter is quirky and even, at times, astonishing in its own right. If not, it can be quickly overcome. A little social awkwardness is nothing a superhero can't deal with on her own. The powers of her mind overcome the challenges presented by the demands of the body that cannot be eliminated. Indeed, embodiment and its ramifications remain a key component of being a superhero, no matter how cerebral or digitized or mechanized her skills (Bukatman 1993).

Some super recognizers are starting to find each other and share their stories, like in the above AMA. But there aren't many: unlike face blind people, they don't need support and community in the same way to develop daily coping mechanisms, strategies for watching television and movies, and the basic sense that they are not alone (Pearl 2019). They also, as a diagnostic category or community, haven't been around as long. Partly because of that, they don't have as much research and material to share. There's a growing amount of both scientific and humanistic literature on prosopagnosia, but the field of super recognition is much newer (Edkins 2015). There are a number of labs steadily publishing their findings, but these include no humanistic analyses of the politics, experience, and social consequences of super recognition. Much as we can learn from the face blind the importance of paying attention to identification cues beyond the facial, so too can we learn from the supers other implications of vexing the face recognition-relationship index.

What we seem to know from experiments is that supers are probably better than average at holistic processing (i.e. seeing the face as a whole object) (Bobak et al. 2016). We know that that supers are as good at recognizing faces as face blind people are bad at it (Russell, Duchaine, and Nakayama 2009). We know, or at least we are starting to know, that super recognition can be detected even in teens, which tells us that at least some facial recognition cognition develops earlier than previously thought (Bennetts, Mole, and Bate 2017). What we also know, what we've known for a long time, is that most people recognize others based on emotional connection, personal interaction, and repeated encounter (Russell and Sinha 2007). That's mostly not true on either end of the spectrum; face blind people recognize almost no one, regardless of prior relationships, and supers recognize everyone. We know a lot about the challenges and costs for people with

prosopagnosia (Dalrymple et al. 2014). We know almost none of that for the supers. Super recognition is a superpower, and we aren't quite as concerned about the challenges of super powers if we can use them to save the world.

Conclusion

Supers present the opportunity for an easily narrativized story of people doing it better than machines (face recognition software can't even come close, nor can biometric kits) through a really cool new application of a previously under-recognized and still under-capitalized set of abilities. It's not because supers are more intuitive than machines; it's that they are looking in a fundamentally different way, focusing on specific features and identifying them across platforms. At the moment, face recognition software can't do that. And if super recognizers haven't quite managed to apply these skills outside of CCTV crime detection and the private security, they soon will. In the meantime, we are still finding out who the supers are. So are they; thanks to easily accessed internet tests combined with the media coverage, more and more supers are being identified, studied, and, in London, put to work every day. The ones who aren't being put to work (which is most of them) are honing their abilities in daily life and on TV, preparing to save the world, or at least identifying extras on television.

Supers have a huge social and professional advantage once they learn when to suppress their abilities. The challenges, as we know them to date, are dwarfed by the benefits, at least according to the way the condition is presented across multiple media and scholarly literature. The spectrum model places super recognition and face blindness in extreme opposition; the challenges and advantages and experiences are thus opposed as well. One is a superpower and one is a disability, and the binary between those categories is stark. There are a lot of value judgments laden upon this diagnostic spectrum.

But really, the two poles have a lot in common. On both sides, the face does not serve an index to relationships; for both face blind people and super recognizers, the extent to which they recognize others is a meaningless indicator of their connection to those people. It's been hard for both the supers and the face blind to recognize that they sit at extreme ends of the face recognition spectrum; people who fall in both categories just assumed others were a bit (or a lot) better or worse at the very basic human ability to recognize others. Getting a diagnosis, in both cases, was a relief, but with very different stakes: people with face blindness needed their condition to be named to feel relief; people with super recognition welcome their diagnoses as an opportunity to capitalize on a skill. (#notallsuperrecognizers) Some kinds of social awkwardness are more useful and potentially monetizable than others.

And at both ends of the spectrum, there are social consequences: much like those with face blindness, super recognizers have a lot of socially awkward encounters resulting from the way they recognize others. As we've seen, that's in fact one of the so-called symptoms of these conditions. But the social and personal stakes are different on both ends: not recognizing loved ones is bad. Recognizing everyone, even those with whom there is no personal or temporal connection, while creepy, is good. They wouldn't be obvious; while supers all report awkward encounters with people whom they recognize after only brief meetings, with whom they have no emotional connection but whom they recall as though they were dear friends, they also learn pretty quickly to stop mentioning it. They learn to pretend they don't recognize others. They learn to strategically deny their super powers. Again, that's not that hard, and even kind of charming as a set of social challenges. The ability to recognize every face ever seen is good. It's amazing. It's super.

That's how we talk about superpowers. And this is one: it's right there in the name. So it must be positive. And it must be of use for saving the world in some way, because that's what superheroes do. That's what the rhetoric around super recognizers is designed to emphasize: that catching criminals on CCTV will save the world, even if not all the supers are doing it yet. The downsides to super-recognition, as presented in the television news interviews and prints articles, are small and humanizing ones that these supers can deal with easily and with grace. These are the ones that supers themselves bring up: awkward encounters with barely noticed passers-by, extra care in where one lives, the need to leave a mall quickly. There has been almost no scientific research in the possible social or cognitive downsides of these abilities. Studying these extremes together can offer a valuable way to de-center face hierarchies and challenges their underlying biases, while at the same challenging the binary at the extremes of spectrum thinking. If we pay more attention to what gets mobilized by naming these extremes along a spectrum and categorizing the people within these extremes, we can identify and maybe even decode the associations compounded by disability and super ability categories. Face recognition extremes underscore that everyone sees the world – and recognizes it – a little differently. That's the same across the spectrum. If we know more about how others view, recognize, and process something as socially powerful and indexically loaded as the face, perhaps we can have a more expansive notion of experience, identity, and relationality. But the deeper implications of recognition in absence of emotional connection, and the possible deficits that may balance the clear cognitive advantages of super recognition remain, at the moment, unstudied and undiscussed.

Endnotes

1 There are numerous versions of the online super recognizer test; most are derived from the same basic model, including this one from the University of Greenwich, which has an active super recognizer research lab. ("Are You a Super Recogniser?" n.d.)↩

2 Face blind people also have numerous useful skills; they are particularly good at evaluating facial expressions, tone of voice, and body language, though social anxiety tends to limit how often they apply these abilities. (May 2015)↩

3 There have been numerous thoughtful discussions and debates around the ethics of citing internet research. My methodological approach is outlined in (Pearl 2019) in which I discuss that Reddit, as a public discussion forum, need not be anonymized and can be cited directly. Given that I did not know the gender identity of the posters, I used the singular "they." For more, see also (Markham and Buchanan, n.d.).↩

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