Becomings or fixity? Intersectional challenges to reductive power relations

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Abstract

This paper examines the notion of acceleration as simultaneously dynamic and fast moving but underpinned by legacies from an earlier age that inform their development and the ways in which they inflect social life. It shows how sites of dynamic social acceleration can shift and change its focus over time, while (implicitly) maintaining the same logic of unequal power relations. In order to produce social justice and equality, it is, therefore, necessary to understand the logic and ideologies that underpin social relations and technological developments. The paper starts by illustrating the ways in which social acceleration is both longstanding and constitute ideologies of their time. It then considers the thinking of the UK psychologist Francis Galton, the cousin of Charles Darwin, and the legacy of his work. The third section presents the theoretical resources on which the paper draws. The paper then considers three examples of measurements that reproduce unequal power relations by fixing inequalities in their assumptions, even though they exemplify social acceleration. The three examples are parenting styles, unconscious bias and algorithms. The final main part of the paper considers possibilities for change by briefly historicising statistics and considering how they can be rethought. It also briefly discusses insider resistance to ideological fixity that reproduces and amplifies social inequalities of, for example, racialisation, gender and social class.

Keywords: social acceleration, intersectional eugenics, becomings, fixing inequalities

It has become a commonplace that an era characterised by mobilities of ideas, money, technology, and communication as well as people (Urry, 2012) is also one marked by incessant acceleration and growth (Rosa, 2013). Rosa and his colleagues (2017) point out that a logic of dynamic stabilization continually runs the risk of destabilization and so threatens to undermine itself and produce possibilities of a 'post-growth' society (Rosa et

al., 2016). Growth and acceleration, they argue, cannot last forever. Yet, social acceleration is longstanding. If we take the UK as a case in point, the end of the eighteenth century was marked by unprecedented social acceleration. By 1754, the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA) had already come into being. Its establishment marked, and aimed to influence, the period of cultural and technological acceleration from which it arose. It focused on awarding prizes to new inventions, ideas and artworks and, as an ambitious organisation, it has maintained its aims and central logic, but constantly changed and adapted, reinventing itself, to remain influential by keeping in step with changing times (Howe, 2020).

A further example is provided by the COVID-19 pandemic where, globally, economies, transport systems and the movement and meeting of people greatly diminished. Yet, mobilities of ideas, technology and communications accelerated, as did supermarket sales. At the same time pre-existing intersectional inequalities facilitated or limited access to the benefits of new forms of acceleration and growth. Contraction and new forms of acceleration have co-existed.

Change and reinvention, then, can be part of dynamic stabilization without destabilising dynamic stabilisation itself, even in a period where there are major unanticipated disruptions to what were considered normative everyday practices. Yet, very little attention is generally paid to the ways in which the past is sedimented into the present. It is, therefore, important to understand the 'history of the present' in order to grasp the 'conditions of possibility' that produced contemporary conditions (Foucault, 1973; 1977). To appreciate the differential impact of continual acceleration and growth, it is important to examine the histories that produce them and the implications of those histories for differences in the ways they are received and impact on people positioned differently.

This paper examines the notion of acceleration as simultaneously dynamic and fast moving but underpinned by legacies from an earlier age that informs their development and the ways in which they inflect social life. It focuses on psychological theorizing to examine the ways in which sites of dynamic social acceleration can shift and change their focus over time, while (implicitly) maintaining the same logic of unequal power relations.

As Dorte Marie Søndergaard (this volume) shows, the complexity of social acceleration (as represented in new materialist agential readings) requires a return to considerations of the human and human entanglements with technology. This paper illustrates the importance of these themes. To produce social justice and equality, it argues that it is necessary to understand the logic and ideologies that underpin social relations and the technological developments associated with acceleration. Acceleration and human becomings are, therefore, inextricably linked in that an accelerating society repeatedly produces becomings in the form of new possibilities, even as very old ideas remain central, if implicit, constituents of the present and the future. The paper historicises psychological theorizing on racialization. It shows how the legacy of its past can serve to maintain the political status quo by enshrining fixity in contemporary accelerative developments and so privilege some possible futures while refusing others. The paper also shows, however, that there are also always resistances to inequities that open spaces for change towards racialised social justice.

The first main section of the paper examines the ways in which the nineteenth century as a period of accelerated social change produced various ideas that enshrine fixities in the present. They have, therefore, produced legacies for the contemporary period that are often unacknowledged. It starts by illustrating the ways in which social acceleration is both

longstanding and (re)creates ideologies that are of their time. It then considers the thinking of the UK psychologist Francis Galton, the cousin of Charles Darwin, and the legacy of his work. The second main section of the paper examines these legacies and what they mean for contemporary becomings. It starts by presenting the theoretical resources on which the paper draws. It then considers three examples of measurements that reproduce unequal power relations by fixing inequalities through their assumptions, even though they exemplify social acceleration. These are parenting styles, unconscious bias, and algorithms. The final main section considers possibilities for redressing the social inequities produced by the interlinking of social acceleration and historicised inequalities that condition contemporary social relations and conditions. It considers possibilities for change by briefly historicising statistics and considering how they can be rethought. It also briefly discusses insider resistance to ideological fixity that reproduces and amplifies social inequalities of, for example, racialisation, gender, and social class.

Histories of the present and accelerated social change

Longstanding acceleration and shifts in emotional life

A century after the establishment of the RSA, the 1851 Great Exhibition of the Works of Industry of All Nations was held in London to make "clear to the world [Britain's] role as industrial leader". Howe explains that:

> In the two centuries between the end of the English Civil War in 1651 and the Great Exhibition of 1851, Britain became the world's technological leader. The Great Exhibition was symbolic of the transformation from war-torn country to innovation superpower. Between May and October of 1851 over six million people, equivalent to a fifth of the country's population, flocked to a glass hall, a Crystal Palace, purpose-built to celebrate the latest innovations. The transformation – an Industrial Revolution – was brought about by an unprecedented acceleration in the rate of innovation (2016).

Britain's leadership in technological innovation stemmed partly from the wealth and expertise in bureaucracy, administration and building projects that came from its long history of enslavement and colonial subjugation. It was central not only to the ways in which the nation came to see itself as accelerating innovation, but to far-reaching ideas that sedimented into common sense (Gramsci, 1971) about the nation, society and 'other' nations and 'races'. Industrial capitalism, for example, led to changes in the ways family lives, education, consumption, and power differentials were organised. This led Thorstein Veblen (1899/2005) to coin the term 'conspicuous consumption' to describe the spending of money on luxury commodities in order to gain and maintain status by displaying superior economic power and wealth as one way in which the aristocracy attempted to prevent the bourgeoisie from becoming indistinguishable from them. In examining the growth of cities and the congregation of people that was a byproduct of the technological revolution, Simmel (1903) points out that the acceleration of social life also led to marked shifts in emotional life.

> The psychological foundation, upon which the metropolitan individuality is erected, is the intensification of emotional life due to the swift and continuous shift of external and internal stimuli. … To the extent that the metropolis creates these psychological conditions — with every

crossing of the street, with the tempo and multiplicity of economic, occupational and social life — it creates in the sensory foundations of mental life, and in the degree of awareness necessitated by our organization as creatures dependent on differences, a deep contrast with the slower, more habitual, more smoothly flowing rhythm of the sensory-mental phase of small town and rural existence… resistance of the individual to being levelled, swallowed up in the social-technological mechanism… [is the] deepest problem of modern life. (Georg Simmel, 1903, p.11)

In other words, cities are like characters, affecting how we all live and our emotional lives. Not surprisingly, then, in the 19th century this accelerating social change is linked with accelerated psychological measurement. Wilhelm Wundt opened what came to be seen as the first psychological laboratory in 1879, a year that is usually dated as the birth of experimental psychology. And in the United States, William James, brother of the novelist Henry James, published a 1200 page tome, called *Principles of Psychology* in 1899. William James is usually credited with inaugurating social psychology and theories of self and identity, as well as contributing to psychology in the US more generally. As Simmel made clear, technological innovation led to emotional intensification. In its various ways, psychology addresses that emotional intensification in scientific ways that are both products of their period and have long legacies (Henriques et al, 1984).

Dynamism and fixity in social acceleration: Francis Galton and intersectional eugenics.

Galton (1822-1911) was sufficiently affluent to be able to try his hand at a lot of different areas without being tied to any occupational position. His opening of an anthropometric laboratory (in 1891) for measuring many aspects of human differences, together with his writing mean that he is generally considered the 'father' of the study of individual differences in psychology. This section focuses on his eugenic thinking.

Galton coined the term 'eugenics' to refer to the selective breeding of humans. In his own words 'Eugenics is the science which deals with all influences which improve the inborn qualities of a race; also, with those which develop them to the utmost advantage.' (Galton, 1904 in the Welcome library collections). Galton was a co-founder of the Eugenics Society (in 1907) and left money for a UCL Galton Chair of Eugenics. The Eugenics Society sought to "bring all matters pertaining to human parenthood under the domination of eugenic ideals" and to "effect improvement of the race" through knowledge of the laws of heredity. Galton's work both arises from the technological acceleration that stimulated metrication and fixes already existing ideas about racialisation, gender, disability, and social class that were part of the post enslavement, colonial context in which he travelled. This is repeatedly evident in his writing. For example, after travelling to the country that is now known as Namibia, he wrote in his journal, "I saw enough of the savage races to give me material to think about for the rest of my life." His views on black races were clearly constantly at the forefront of his mind. For example, in the preface to his 1869 book, *Hereditary Genius*, he explains that 'The idea of investigating the subject of hereditary genius occurred to me during the course of a purely ethnological inquiry, into the mental peculiarities of different races'. Equally, when thinking about heterosexual attraction, he wrote in his notebook:

> The male is little if at all attracted by close similarity. The attraction is rapidly increased as the difference in any given respect between the female and the male increases, but only up to a certain point, when this is passed, the attraction again wanes until zero is reached. When the diversity is still greater the attraction becomes negative and passes into a repugnance A modestly fair m such

as most fair men might appear to feel towards a woman of a negro tint towards a negress. (Galton's notebook, 1888, Galton Papers 138/3, with original mistakes)

It is notable that Galton is taking what we would recognise as an intersectional perspective in that he views 'race' as intersecting with gender to produce specific effects. He is interested in gender because he takes for granted that males are much more important than women and 'negress' women of very little worth.

Galton was, of course, of his time and positioned as a white, upper class, British man who lived mostly in the nineteenth century. His eugenic ideas might then, be the unconscious bias of the time, but this view essentialises both the period and the people of the period. In fact, there are always counter narratives to what are canonical narratives of any period. In Galton's time, there were strong counter narratives to his eugenicist beliefs. Thomas Leonard, now an emeritus professor of statistics, who is also a writer and a poet explains that:

> Eugenics was not universally popular in its heyday. Early critics of Eugenics included Lester Frank Ward, GK Chesterton (1917 book Eugenics and Other Evils), Franz Boas, Halliday Sutherland, and Aldous Huxley. Liberal MP Josiah Wedgwood would speak against the 1913 Mental Deficiency Act. This Act, though containing elements of welfare state provision, also made judgements on mental abilities as if they were fixed and biological rather than the result of material social conditions.
> The early eugenicists cannot therefore be exonerated on the grounds that their preachings were unquestioned at that time. (Leonard, 2019)

As Leonard points out, there were many eminent men who vehemently opposed eugenic thinking. The British government did bring in the 1913 Mental Deficiency Act, which was based on eugenic principles. However, many people spoke against it, rather than accepting the ideas on which it was based. That opposition led to shifts in thinking through contestation as well as historical change. The historical 'conditions of possibility' (Foucault) that provided the backdrop to Galton's eminence were, therefore, contested as well as ones that enabled social injustice.

Just as there were divisions about eugenics ideas in Galton's time, so too their genealogies include legacies that indicate the recursiveness of social ideas. This was well illustrated in 2018 when the media reported that an honorary lecturer at UCL had been holding eugenics conferences for at least three years (Rawlinson and Adams 2018). The fallout from this revelation led UCL to set up a Commission to investigate the history of eugenics at UCL and its legacy. The recommendations from that Commission informed the decision to dename the Galton and Pearson rooms (UCL 2020) when Black Lives Matter protests and the toppling of statues of enslavers in the UK and US revitalised student requests that rooms and buildings at UCL should not celebrate eugenicists by bearing their names. It is important to see all these events in their historical context, as underpinned by ideas that have sedimented into common sense and are recursive, even if they are contested. This is an example of a contemporary issue which is inextricably linked with historical origins that are only acknowledge through large-scale protests from those who act in the hope for change towards equity.

The meanings of historical legacies of acceleration for contemporary becomings

Theorising the ideological impact of recursive ideas: Becomings, temporality and intersectionality

The sections below discuss the ideological impact of ideas such as Galton's and their relevance for the contemporary social world. In doing so, it draws on theoretical resources of 'becomings', temporality and intersectionality. Becomings and temporality have entered many disciplines and become theoretical common places. In relation to notions of 'becoming', the sociology of childhood started from resistance to developmental psychology because of its focus on children as having potential for becoming, focusing on children and parents as sites of intervention, rather than as people with current lives, practices and agency. This is an important critique. Yet, while the sociology of childhood foregrounds the child's being, this does not indicate that becoming is not important, but that being and becoming are both crucial. The question of becoming is also central to identity (Hall, 1996). In keeping with many theorists, Elizabeth Grosz (1999, 2005), who is an Australian feminist philosopher theorises time as lived experience. She draws on Bergson's concept of duration and the notion that the past 'is always moving on' so that it is constantly, re-experienced in the present and open to the future. This means that the actual and the possible exist together and are only separated by the process of actualising and realizing some possibilities and not others. At any one point there are multiple possible becomings. That way of thinking fits with narrative theory, which thinks about the past the present and the future as all simultaneous and as all changing. As our potential futures change, so does the way in which we understand our present and the past also changes.

> Unless we develop concepts of time and duration which welcome and privilege the future, which openly accept the rich virtualities and divergent resonances of the present, we will remain closed to understanding the complex processes of becoming that engender and constitute both life and matter (Grosz 1998, p. 38)

Grosz's formulation is in keeping with Pablo Oyarzŭn's (this volume) use of philosophical poetics of temporality, historicity, complexity and dislocation to argue that there are two velocities to acceleration, with the present being separated from itself in the experience of a present to come. Acceleration thus opens possibilities for becomings, but those becomings are historically located so that the future is not foreclosed but contains multiple and often contradictory and contested futures. The notion of multiplicity fits with conceptualisation of intersectionality.

The term intersectionality was coined by Kimberlé Crenshaw in 1989, from ideas that were already circulating and is one of the fastest growing theoretical and interdisciplinary constructs. Its main point is that everybody belongs simultaneously to multiple social categories that are dynamic and mutually constitute each other, 'not as distinct but always permeated by other categories, fluid and changing, always in the process of being created by dynamics of power (Cho, Crenshaw and McCall, 2013). Those dynamics of power mean that the ways in which people are seen can produce epistemic violence, the imposition of one set of beliefs over another (Foucault, 1978) in power/knowledge dynamics. Gayatri Chakravorty Spivak (1988) argues that, in (post)colonial discourse, epistemic violence

results when the subaltern is silenced by both the colonial and indigenous patriarchal power. Informal knowledge also produces epistemic violence in that, if groups of people know that dominant discourses construct them as inferior, this is epistemically violent. If we think about this in relation to Galton, it becomes clear that measurement continually reproduces social inequalities and has ideological impacts because it reinforces already existing power relations and bias, even though that bias is contested. It naturalizes inequalities in much the same ways to how Galton assumed that women and black people are inferior to white men.

This also serves to depopulate social psychology (Billig, 1994) because if one thinks about people in terms of measurement and results, then as Billig pointed out, one does not think about them as having subjectivities. This results in viewing them in terms of fixity, rather than as dynamic becomings, even though viewing people in fixed ways requires shifts and adjustments in thinking about them. An everyday example in many Minority World countries is that black people are often implicitly considered to be bodies out of place (Ahmed, 2004). In educational institutions, blackness is often taken to signify the potential for poor attainment in ways that fix them in positions of incapacity. It makes education about reproduction rather than becomings. The dynamism of this fixity is linked to the construction of exceptionalism. Black students who do well academically are constructed as exceptional. That notion of exceptionalism serves to fix the general category of black people as necessarily poorly attaining and to essentialise notions of authenticity. So, for example, authenticity and insight can be disputed for those black people who do well. For example, Mallory Blackman, a children's author who has been the British children's literature laureate in Britain explained that one of her novels (now much celebrated and serialised on UK television) was rejected for a literary award because it dealt with racial discrimination and so was deemed not sufficiently insightful as it would have been if she had been white and had to imagine discrimination. Another black writer Courttia Newland says that he was turned down for a prize on the grounds that he had described black people eating spaghetti bolognaise and the judges considered that this was poorly described because black people do not eat spaghetti bolognaise(Whannel, 2018). The choices of reasons for denying these authors prizes demonstrate how at different times and in different contexts, the ways in which those constructed as inferior are dynamic to fit with the period and context in processes of dynamic fixity. While these two examples can easily be recognised to be ridiculous, those examples that are not so evident reproduce exceptionalism and essentialising notions of racialised authenticity. The section below briefly gives three examples of some of the ways in which measurements are often used to reproduce already-existing unequal power relations.

That theoretical psychology and theoretical ideas and concepts can serve the status quo rather than serving social change and justice, and that a focus on acceleration also masks the fact that despite acceleration, some understandings/biases remain more at a stand-still, and some positions are still unjustly fixed and remaining fixed…. See further comments and questions in the manus.

Accelerating measurement and the reproduction of unequal power relations

The first example in this section comes from psychological work on parenting styles. Work in this area has been much dominated by Diana Baumrind's (1966) parenting styles matrix which is represented as a matrix divided into quadrants in a two by two matrix. From observations of parents and children Baumrind came up with four types of parenting style: the authoritarian or disciplinarian; the permissive, or indulgent; the uninvolved and the

authoritative. Since then, hundreds of published studies have found that there is a link between being authoritative in your parenting style and producing children with good outcomes who do well at school and are responsible citizens. Authoritative parenting style is the gold standard parenting style. Yet, there are also scores of publications that show that, while the authoritative parenting style works well for the white middle classes in the US, it does not necessarily work well for African Americans, Hispanics, the working classes or people who live in dangerous neighbourhoods, where the 'authoritarian' parenting style (a more rigid and restrictive style than the idealised authoritative style) appears to work better. Three examples serve to illustrate this.

> 'Regression slopes showed that the experience of physical discipline at each time point was related to higher levels of subsequent externalizing behaviors for European American adolescents but lower levels of externalizing behaviors for African American adolescents' (Lansford et al., 2004).
> 'Overall, our results supported the idea that in Spain the optimum style of parenting is the indulgent one, as adolescents' scores in the four sets of youth outcomes were equal or better than the authoritative style of parenting.' (Garcia & Gracia, 2009, *Adolescence*).
> 'This work has drawn attention to diversity in the cultural meanings of parenting across ethnic and cultural groups and subgroups. Such work challenges the universal theories of socialization by highlighting cultural differences in understandings of parenting, in parenting behaviors, and in the effects of those behaviors.' (Russell, Crockett and Chao, 2010)

The authoritative parenting style is not, therefore, as unequivocally positive as it is often assumed to be. Instead, it fits with a normalized absence/pathologized presence perspective where white middle class parents and children are constructed as the norm against with other groups are compared and other groups are fixed into problematic and to pathologized categories with no opportunity to shift and extend the normative (Phoenix, 1988). The examples above draw attention to diversity in the cultural meaning of parenting across ethnicised and cultural groups and challenge universal theories of socialization by highlighting cultural differences in understandings of parenting, in parenting behaviours and in the effects of those behaviours. Yet such studies and reviews do not lead to major change in theorizing of this kind, but simply to minor refinements, as exemplified by Baumrind's (2013) discussion of the 'authoritative parenting pattern'.

> One purpose of this paper is to standardize the meaning of the authoritative parenting pattern by grounding the pattern in its theoretical heritage and expanding on constructs, in particular, confrontive control, that are integral to its definition but sometimes overlooked. ... I then describe my longitudinal program of research by presenting its research strategy and methodology and the research variables and procedures used to test hypotheses concerning the differential effects on child outcomes of contrasting patterns of parental authority. (Baumrind, 2013)

Baumrind died in 2018 (aged 90) and was still working on refining her parenting styles theorisation at the end of her life. While the Galtonian legacy fixes people, work of this kind fixes constructs and, in doing so, also serves to maintain the white middle classes as normative. The many exceptions by ethnicity and social class do not trouble the theory but are incorporated into a dynamic fixity of constructs as refinement, not challenge.

The next example I want to give is to do with the operalisation of the theory of unconscious bias, an important concept, and one that has gained a great deal of traction in many societies where many companies now provide training in unconscious bias to avoid the reproduction of social inequalities ~~through bias~~. Unconscious bias as tested by the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998) is built on long histories of research in Social Identity Theory, Self-Categorization Approach, entitativity and other social psychological work. Despite its importance, however, it has some unforeseen negative impacts, one of which is complacency. Keon West (2019) suggests that one outcome of unconscious bias training is relief that racism and other discrimination is inevitable and so not blameworthy. As West argues, the focus on unconscious bias also takes attention away from the damage caused by 'bias' and from the fact that there are many conscious biases. In other words, it leaves racism unaddressed and constitutes an evasion of responsibility. In terms of becomings and fixity, unconscious bias can thus serve to fix the self in order to avoid claims to changed social arrangements from the 'other'. The fixity produced by unconscious bias training can, therefore, be counter-productive and sometimes in surprising ways. From her research, Alexandra Kalev (2018) concludes that "Efforts to get people to suppress their stereotypes can actually work to reinforce them." She found that companies that do unconscious bias training appointed fewer women and minority ethnic groups to management jobs in the twelve months following the training. Dobbin and Kalev (2018) suggest that the process by which this happens is that mandatory participation in diversity training and the legal focus of much of it is likely to make participants feel that an external power is trying to control their behaviour and that if training tells us that everybody is biased, there is no need to make an effort because making an effort will make no difference. In addition, many businesses see the training as a quick solution to their discrimination problems with no need to do anything further.

The final example in this section shows the ways in which (unconscious) biases can have major detrimental consequences and require more than training about unconscious bias. It addresses the ways in which algorithms are increasingly recognised to (re)produce taken-for-granted biases and so have contradictory potential. In a book that is now much cited, Safiya Umoja Noble (2018) contests what she demonstrates is the fantasy of the internet as an equalizing device and, instead, suggests that the web is a machine of oppression because it uses 'algorithms of oppression'. From her research on the infrastructure of the internet, she shows that it is beset by "digital decisions" that "reinforce oppressive social relationships and enact new modes of racial profiling" and are hidden from view because they are produced by mathematical algorithm. He major point is that code is power and, intersectionally, white and male.

Lauren Pasquarella Daley (2019) starts from recognition of the social acceleration in the Artificial Intelligence field and the dream of efficiency and equity that it enables in both everyday life and for many institutions. The question of the programming of inequalities into machine learning is, however, increasingly recognised to be more dystopian that many people expected. Daley asks, 'Can We Program an Equitable Future?' and points out that 'the Bad News' in AI is that bias 'can Be a Barrier to Inclusion' because it 'may inherit, or even amplify, the biases of its creators—who are often unaware of their own biases—or the AI may be using biased data.' The examples Daley presents are highly consequential and illuminating:

- An employer was advertising for a job opening in a male-dominated industry via a social media platform. The platform's ad algorithm pushed jobs to only men to maximize returns on the number and quality of applicants.

- A tech company spent years creating an AI hiring tool by feeding it resumes from top candidates. The AI's function was to review candidate resumes and recommend the most promising candidates. Because the industry is male-dominated, the majority of the resumes used to teach the AI were from men, which ultimately led the AI to discriminate against recommending women (e.g.,, down-scoring resumes that included words like "women" or education from "women's colleges"). Despite multiple unsuccessful attempts to correct the algorithm, the company eventually had to scrap the AI because it could not "unlearn" this bias.

- Face-analysis AI programs display gender and racial bias, demonstrating low errors for determining the gender of lighter-skinned men but high errors in determining gender for darker-skinned women.

- Algorithms used in courtrooms to conduct "risk assessments" about defendants are racially biased. This AI predicts the likelihood that defendants will commit future crimes and its assessments are used throughout the criminal justice process, influencing decisions about the defendant's bond amounts and sentences. A recent study found that the forecasts were unreliable and skewed to flag Black defendants "at almost twice the rate as white defendants" as likely to commit future crimes; Black defendants were found to not actually re-offend at the rates predicted. The programs made the opposite error for white defendants, giving them lower risk scores; meanwhile, researchers found that they went on to commit future crimes at a higher rate than predicted. These differences could not be explained by prior criminal records, age, or gender.

- Voice-activated technology in cars can help solve distracted driving, but many cars' systems are tone deaf to women's voices and have difficulty recognizing foreign accents.

The examples Daley highlights show how far-reaching are the consequences of these programming biases, underlining the importance of taking an intersectional view, recognising that racialisation, gender and social class, for example, operate simultaneously to differentiate the impact on different groups.

These programmed inequities are not intentionally produced. As Caroline Criado Perez (2019) explains in relation to women, it is the 'cause and consequence of … unthinking that conceives of humanity as almost exclusively male.' Yet, the consequences:

> impact on women's lives, every day. The impact can be relatively minor – struggling to reach a top shelf set at a male height norm, for example. Irritating, certainly. But not life-threatening. Not like crashing in a car whose safety tests don't account for women's measurements. Not like dying from a stab wound because your police body armour doesn't fit you properly. For these women, the consequences of living in a world built around male data can be deadly.' (Perez 2019)

In September 2020, Twitter (and Zoom) was surprised by complaints of racial bias from users that led it to investigate why its photo algorithm appears to favour white faces over black faces. The popular UK newspaper, The Mail, explained:

> It was all sparked when a white man tweeted that his colleague, a black man, was having issues with Zoom's virtual backgrounds. He tweeted a snip of the issue, where his colleague's face was not picked up by Zoom's facial detection algorithm, on Twitter and noticed that the preview defaulted to him, not his colleague.
>
> Building on the back of this troubling finding, other Twitter users conducted their own investigations.
>
> One individual posted two stretched out images, both with headshots of Mitch McConnell and Barack Obama, in the same tweet.
>
> In the first image, Mr McConnell, a white man, was at the top of the photo, and in the second image, Barack Obama, a black man, was at the top of the photo.
>
> However, for both photos the preview image was Mr McConnell. This simple demonstration amassed more than 185,000 likes and more than 50,000 retweets.
>
> Other users then delved into more comprehensive tests to tackle variables and further solidify the case against the algorithm.
>
> One user even used cartoon characters in the form of Carl and Lenny from The Simpsons.
>
> In this case the algorithm selected Lenny, who is yellow, instead of Carl, who is black.

Faced with increasing protests and postings demonstrating this inequity, Twitter immediately began to address the issue, made some changes, and explained that it is going to learn from the episode. However, as the Mail explains:

> Biased algorithms are an issue which plagues much of science. Previous experiments have found the way artificial intelligence systems collect data often makes them racist and sexist.
>
> A similar issue in data collection could be the underlying cause for the recent problem reported online.
>
> Researchers from MIT previously looked at a range of AI systems, and found many of them exhibited a shocking bias.
>
> It stems from a lack of diversity in the datasets which are often used to train AI systems.

All the examples above illustrate forms of unconscious bias that thrive because it remains implicit who is being privileged by these technologies. As Benjamin suggests:

> Ultimately the danger of the New Jim Code[1] positioning is that existing social biases are reinforced –yes. But new methods of social control are produced as well. Does this mean that every form of technological prediction or personalization has racist effects? Not necessarily. It means that, whenever we hear the promises of tech being extolled, our antennae should pop up to question what all that hype of "better, faster, fairer" might be hiding and making us ignore. And, when bias and inequity come to light, "lack of intention" to harm is not a viable alibi. One cannot reap the reward when things go right but downplay responsibility when they go wrong (2019: pp 76).

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[1] 'the employment of new technologies that reflect and reproduce existing inequities but that are promoted and perceived as more objective or progressive than the discriminatory systems of a previous era' (Benjamin, 2019: 5-6)

Revelations such as those above, coming after the 2020 resurgence of Black Lives Matter and the protests that have followed the videoed murder of George Floyd, a black man, by a white Minnesota policeman, will hopefully lead to the change that Noble (2018), Daley (2019) and Perez (2019) advocate above. However, it is important to note that the racist, sexist and classist inequities they enshrine are not isolated cases but result from the implicit perpetuation of thinking that was evident in Galton's nineteenth century psychological ideas. In addition, they disrupt notions that there is a 1-1 correspondence between social acceleration and progress. Instead, they show how potentially exciting and accelerating developments both start from some fixed ideas and produce essentialising fixity for people constructed as 'other' and inferior and serve to fix social status hierarchies by maintaining longstanding power relations. They produce an implicit expansion of inequalities, while apparently enshrining impartiality and notions of advancement through merit. They provide an illustration of why non-essentialist 'insider perspectives' matter, something that has been better understood with the conversations sparked in 2020 by the Black Lives Matter protests.

The final main section, below, addresses possibilities for change.

Resistance to historical fixities and possibilities for new beginnings

While issues of AI may seem abstracted from psychology, they are of central importance, both because of their impact on the everyday and because they are important to psychologists who do research in these areas and those who draw on 'Big Data' and will better be able to analyse Big Data if they understand how it is produced. In thinking about how to produce change in the direction of social justice and how to understand issue of becomings and fixity, the issue of rethinking statistics is central. Statistics were developed in a eugenic era where a major aim was to use statistics to prove eugenic claims. As Galton (1889, p. 63) claims, statistics are 'tools by which an opening can be cut through the formidable thicket of difficulties that bars the path of those who pursue the Science of man'. For Galton, the Science of man was a gendered, racialised, classed and disablist one.

 Karl Pearson and Ronald Fisher, the leading statisticians of their age, who worked at UCL, explicitly endorsed settler colonialism and population eugenics on a global scale. Racial eugenics which involved measuring skulls, disease frequencies or the 'intelligence' of different 'races') was mainstream statistical knowledge.

Nathaniel Josselson (2016), who is a statistics graduate in South Africa provides a good example of how it is possible to resist the fixity of disciplines and the ways in which they fix inequalities in support of new becomings. He has addressed the history of statistics as part of a project to decolonise the curriculum explains how Pearson, for example, shifted his measures order to prove the racial inferiority of black people and Jews, because he already knew that they were inferior and did not have to establish that, but simply to show their differences from white people.

> In Pearson's "Annals of Eugenics" he had to pick and choose measures of genetic inferiority to ensure that his conclusion that Jews are an inferior race would be satisfied. This was difficult because initially he had measured income and saving as proxies for genetic superiority, but after

the Jews in his study exhibited higher average income and saving, he had to change his interpretation of that variable to be a negative trait.

Many statistical techniques we take for granted were developed for and used in eugenics research including t-tests, discriminant analysis and even our modern form of simple linear regression, e.g., "significant difference."'

This research is hypothesis driven where the null hypothesis to be proven wrong is that there is no difference between the populations. Then if the populations can be proven different after performing a t-test or an F-test or a z-test or a chi-squared test, then the research was successful and is worth publishing. It is this exact format that is taught to this day in undergraduate statistics. Never mind that these tests can be influenced by a large sample size so that even slight differences can be proven "significant;" never mind they were developed to 'prove' such hypotheses, as "there is significant difference in personal cleanliness between white and non-white children;" and never mind the fact that disproving one hypothesis doesn't necessarily prove the other to be true; these tests are the basis of classical statistics, so thus should form the basis of every statistician's knowledge, right?

To me, this appeal to the biases of the past for justification of inaction in the present doesn't make sense. We must be critical and forward thinking, so we aren't afraid to say that obsession with difference is divisive and categorization is colonial. Just as we need to unlearn colonial categorization of objects and people as economically productive or unproductive, we need to unlearn categorization of statistical differences as significant or not significant. Statistical significance, like every other observable phenomenon (gender, sexuality, race), is on a spectrum, not a categorical scale. Post-colonial understanding of statistical significance doesn't rely on p-values less than 0.05, but rather on holistic understanding of the data in question and the mathematical properties of the population that generated it. This is knowledge discovery, not hypothesis testing. This is interdisciplinary research, not isolated extrapolation by inherently biased human beings.' (Josselson, 2016)

Josselson has clearly made himself an insider to the decolonial project and his critique is timely for psychology at a time when significance tests have fallen out of favour and the replication crisis means that we have to rethink statistics. So, it is a good moment to think about where particular ways of thinking about statistics have come from and what their implications are and doing something new and decolonial.

A different form of resistance is exemplified by the resistance of two black women novelists. Toni Morrison, the US novelist who died in 2019, addressed how, as a black woman writer, she has had to struggle with and through, a 'language that can powerfully evoke and enforce hidden signs of racial superiority, cultural hegemony, and dismissive "othering" of people and language' (Morrison, 1994).

The Nigerian feminist novel Chimamanda Ngozi Adichie gave a TED global talk in 2009, in which she said that she was 'quite old' before she realized that black people could be characters in books. She read voraciously as a child, but it was not until she discovered African writers that she saw that people like her could be in books. This experience has helped her to recognise the 'danger of a single story'.

What this demonstrates, I think, is how impressionable and vulnerable we are in the face of a story, particularly as children…

Now, I loved those American and British books I read. They stirred my imagination. They opened up new worlds for me. But the unintended consequence was that I did not know that people like me could exist in literature. So what the discovery of African writers did for me was this: It saved me from having a single story of what books are." Chimamanda Ngozi Adichie

(2009).

In conclusion

The overall argument of the paper is that psychological theorizing frequently serves to maintain the political status quo in relation to power relations. In doing so, it refuses some possible futures. That maintenance of the status quo incorporates complex global and local relations and intersectional positionality in ways that (re)produce epistemic violence. So even when measurement and technology are accelerating and society seems to be entirely dynamic, it is also important to recognise the production of fixity and the contradictory impact of systemic dynamism, with fixity for those in minoritised positioning.

All the examples discussed above illustrate both forms of unconscious bias that maintain the privileges subsumed within technologies and metrics such as those produced for parenting styles. In those contexts where there is such contradictory positioning, however unrecognised it is, difference and dissent can open spaces for social change and new becomings in much the way that Black Lives Matter protests and environmental movements have argued for in recent years. While the future remains uncharted, dissatisfaction with lack of change towards social justice can lead to claims for new social arrangements in ways that disrupt invisible legacies and produce possibilities for transformation. However, social justice and equalities will remain elusive and psychological theorising will continue to contribute to maintenance of the status quo and a refusal of possible futures unless it is recognised how invisible intersectional inequalities are enshrined in sites of acceleration in ways that run deeper than unconscious bias and continue to be epistemically violent. As Foucault suggests:

> "The real political task in a society such as ours is to criticize the workings of institutions that appear to be both neutral and independent, to criticize and attack them in such a manner that the political violence that has always exercised itself obscurely through them will be unmasked, so that one can fight against them." (1971).

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