The material force of categories

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Abstract
The function of categories of the human sciences is a well-established field of scholarly inquiry, animated by debates over their capacity to reduce, exclude, determine, abstract, produce, loop, control, and/or restrain. This special issue takes an interdisciplinary perspective to investigate urgent questions about the 'material force' of categories as they operate in practice. Specifically, we emphasise the *plasticity* of categories and how their ambivalent boundaries can render their categorical forcefulness continuously operative. Categories morph and shift as they traverse different fields, re-articulating difference as they interact with divergent institutions and epistemic infrastructures. The five interdisciplinary articles in this issue explore the material force of categories across varied contexts, including the prison system, digital culture, legal frameworks, psychiatric diagnostics, and applied governmental research. In so doing, the special issue as a whole emphasises the capacious yet persistent nature of categorisation, revealing how, in multiple ways, categories can stabilise the management of people precisely through their inherent structures of contingency and ambivalence.

Keywords
assessment, categories, classification, decision making, plasticity

The articles in this special issue trace the ways in which, across various institutional contexts, categories enact asymmetrical distributions of power, inscribe forms of inclusion and exclusions, and produce (often unforeseen) material effects. A contestation over

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practices of clinical diagnosis demonstrates how assessment processes both reconfigure and codify what may otherwise appear as the fixed and stable boundaries of a diagnostic category. The creation of a new murky socio-legal category lays the foundation for mechanisms of exclusion and incarceration, determining a calculus of who is considered valuable or expendable. Computational systems within therapeutic settings introduce novel categories, which distort established understandings of mental health and treatment. The operationalisation of social scientific research by state agencies allows for new categories of action. Established clinical categories take on new meanings as they move into carceral contexts, producing often harmful effects for those subjected to their reconfiguration. Each of the narratives and examples presented in this publication offers a distinctive probe into the operations of the categories of the human sciences.

The categorisations of the human sciences are clearly limiting and have a structural tendency to produce definitive determinations. Indeed, as we discuss further below, there is an extensive array of critical literature on how categories in the human sciences reduce, exclude, determine, abstract, produce, loop, control, and/or restrain. Yet, what stuck out for us when we observed how categories are enacted *in practice* was their malleability, their capacity to change, and how this makes their categorical violence continuously operative. Thus, rather than focusing on the fixity and reductive nature of categories —their tendency to impose restrictive frameworks—the critical contribution of this special issue is to reveal the productive power of the *plasticity* of categories in the human sciences. Categories can morph and adapt as they move across institutions or re-articulate difference differently as they interact with various fields of culture, politics, knowledge, and so on. It is their variability and capacity to produce new distinctions that sustain diversity—without giving up their own authority as a category—that became interesting for us. These qualities allow for the accommodation of novel elements within a set of things or shifting definitions of the category's boundaries. Therefore, our interest became the combination of the forcefulness of the categories as they are administered and their malleability. How does the shifting, reworked, rearticulated, or rebranded inside or outside of a category produce the force? How is it that something so fragile can be so forceful?

What, then, of the 'material' in 'material force' that moves beyond the ideational, ideological, and symbolic? For us, as we discuss in greater detail later in this introduction, it is the functions of categories that are at stake in the articles collected here. It is no surprise that categories have the capacity to move people; indeed, it is what many (if not all) human categories were constructed to do. People are moved from school to school, from home to prison, and from job to job. Categories often provide helpful frameworks for making decision making simple, efficient, and supposedly fair. The *material* here produces effects: it helps determine the kinds of 'treatments' or interventions one may be subjected to; places individuals in programmes they may be compelled to comply with; and restricts the types of work, education, health care, resources, and freedoms one may be permitted to access. But it is not only the materiality of effect that we are interested in, but also the materiality of the enacting of categories. Here, we are also concerned with how categories are enacted in practice and on the ground—the protocols, technologies, and procedural guides that produce and give them shape modify the very

architecture of the categories themselves, continually shaping and reshaping their boundaries and thus intensifying their coercive power.

Collectively, the contributions to this special issue exemplify how categories are malleable and, we argue, *productively* so. For example, 'personality disorder' becomes a 'capacious' container for observed mental health difficulties (Hudson, this Issue), and the once medical categories of 'idiocy', 'imbecility', and 'feeblemindedness' change not only name but *meaning* as political, economic, and sited conditions change (Aragon, this Issue). Therein, not only is there a looping effect (Hacking, 1996)—wherein new categorical practices in the human sciences interact and feedback with those classified—but, as we argue, the *plasticity* of seemingly stable categories means that the bounds of categories are blurry. Key to this introduction's argument, the plasticity of these categories themselves produces *effects*.

While a historical lens is mobilised to track the forces that shape categories, it is crucial to emphasise that this special issue remains distinctively interdisciplinary, drawing together contributors from across visual cultures, sociology, the history of medicine, the social study of public administration, psychosocial studies, anthropology, criminology, and the history of science. Though the arguments we develop in this introduction around productive plasticity are relevant to other categories of categories, the specificity of the human sciences is crucial to us here. Particularly, we have selected articles that evidence how categories from the human sciences spread to other fields—and are thus reshaped for their new uses—and how categories from outside of the human sciences can also enter the heterogeneous field. Further, we are less concerned with the complexities of the subject and how the category might define and delimit this (for example, we are not interested in gauging how good a fit or not an object is within a set). Instead, we aim to highlight that such categories of the subject, of the human (and therefore the non-human), of race, reputation, intelligence, mental health, capacity to work or suffer, and so on, are productive. These categories do things: they enact, they make those objects that they claim to be measuring or sensing. The case studies in this special issue highlight how categories came to be in practice, how they are under-defined, hazy, and capacious. It also examines how their malleability is shaped and reshaped by a combination of subjective decision making, contested or contradictory knowledge structures, institutional practices, and automated systems.

Categories of the human sciences

Categories emerging from and associated with the human sciences are widely deployed to aid in the management of institutional decision-making processes. As we see across various fields, the practical application of categories of human difference serves as a productive mechanism for ordering our lives and the lives of others. As people traverse institutional landscapes—government, healthcare, law, education, work, and digital culture—categories function not only as organisational tools but also as dynamic agents in the production and management of social realities. Given this, it is unsurprising that there has been considerable scholarly attention to the (de)capacitating function they play. There are relevant conceptualisations of power/knowledge in relation to the human sciences (Foucault, 1980, 2002) and of how individuals are fragmented into categorical

functions, such as personality and behaviour (Danziger, 1997). We would specifically like to highlight the well-developed critical debates around how categories function in relation to determinations of risk (Amoore, 2013; Bouk, 2018; Harcourt, 2015; Hudson and Percival, 2023; Rose, 1998), race and racialisation (e.g. Amaro, 2022; da Silva, 2007; Dixon-Román, Nyame-Mensah, and Russell, 2019; Hirschfeld, 1998; M'charek, Schramm, and Skinner, 2014; Weheliye, 2014), intellectual (dis)ability (e.g. Goodey, 2016; Jarrett, 2020; Snyder and Mitchell, 2006; Trent, 2017), and mental health more broadly (e.g. Foucault, 1988; Hacking, 2000; Laing, 1990; Millard, 2017; Smith, 2005; Staub, 2011). Moreover, even regarding the category of the human itself, scholarly work has examined the shifting contours of who is included or excluded from this classification (e.g. Jackson, 2020; Wynter, 2003).

While the considerable body of critical literature highlighted above focuses on the ways in which categorisations impose rigid, definitive, and reductive frameworks—frameworks critiqued for their inadequacy at capturing the intricate realities of the entities classified—this special issue pursues a different path. We are less preoccupied with scrutinising the fixity or reductive determinations of categories *per se,* and more focused on the *work* they do within different institutional, epistemic, and socio-technical arrangements. Our objective is not to (re)examine the precision or imprecision of categories and classifications but rather to illuminate how categories (through their often ambivalent or contradictory determinations) exert material influence upon individuals and the repercussions of shifting categories on the institutions and spaces that regulate everyday life. Accordingly, we draw upon Bowker and Starr's *Sorting Things Out* (from which this special issue gets its title) to investigate how a wide range of systems of classification —from highly organised and strictly standardised protocols to more ad hoc and improvised structures of organisation—come to administer human activity in ordinary but significant ways.[1] A critical insight from their work is that classifications are defined by (a) having 'consistent, unique classificatory principles in operation', (b) the 'categories … [being] mutually exclusive', and (c) the 'system … [being] complete' (Bowker and Star, 1999: 10–11). However, *in practice*, these classificatory systems often fail to meet these fundamental conditions. Categories are frequently more varied and conflicting in everyday deployment. In actuality, 'people disagree about their nature; they ignore or misunderstand them; or they routinely mix together different and contradictory principles' (ibid.: 11). This reframing allows us to investigate not merely what categories are but how they operate across different settings.

It is precisely the quotidian operations of (capacious) categories that inform our approach. We focus on their productive, rather than reductive, dynamics in everyday life. Arguments against reducing complexities (of the social, of culture, and the human) through simplification and rational schemas are well rehearsed in the critical literature. As Annemarie Mol and John Law point out, the critique of simplification is 'so well established that it has become a morally comfortable place to be' (Mol and Law, 2002: 5–6). Much of the critical discourse revolves around the idea that simplifications take complex realities and produce singular narratives, which inevitably fail to capture the intricate nuances of the objects they seek to categorise. In practice, multiple and often contradictory structures of ordering can coexist and seek to understand how complexities operate (ibid.: 6). As Evelyn Ruppert underscores, categories have 'inventive

capacities' (Ruppert, 2012: 36). From this perspective, categories do not merely describe but actively enact the objects they are intended to designate. Categories do not simply fail to account for a complex array of differences fully; rather, they produce these differences and contribute to determinations of what is included and what is excluded. This approach also illuminates the contingent and ambivalent relationship *between* formal classification systems and everyday social worlds when enacted in practice. For example, through her analysis of the census as a governance technology of classification, Ruppert develops the notion of 'classification struggle' (ibid.: 40–1), which highlights that what is essential about how categories govern is not whether a category is 'real' but how they are 'constituted' as a 'result of battles over truth, debates, controversies, etc.' (ibid.: 41). This line of inquiry underpins the core aim of this special issue: to unpack how complexities are managed and materialised through various regimes of assessment in practice.

We see an opportunity to interrogate further how such classification systems take on an authoritative character despite often relying upon or incorporating divergent (or even conflicting) forms of evidence or knowledge. Here, we suggest Theodore Porter's work (1995) can be expanded not only to historicise a move towards objectivity through numbers but to highlight the ways in which standardisation and rule-based decision making were imported into a wide variety of bureaucratic and non-bureaucratic systems. Objectivity, Porter argues, is curiously shaped through a blend of scientific expertise and tacit knowledge, which is then standardised and made available such that tacit knowledge is no longer necessary. Statistical models, for example, built by expertise are black-boxed and become tools available for use. Here, we suggest that categories and the systems in which they are used are similarly constructed with both a hope that they can function objectively' in a standardised manner and so that the assessments that delineate the categories in which people are sorted are similarly objective, but constructed by experts. As in Porter, we are interested not only in the ways in which 'objectivity' is essential to the actors that implement the tools of objectivity, but also in how the tools and systems as 'objective' become 'public' communication devices (ibid.).

This special issue foregrounds not only the convergence of bureaucratic and humanistic decision making within this volume but also a connected merging of the human sciences (broadly construed) and their pragmatic applications. Take, for example, the category of 'idiocy' as it moves through different fields, including education, psychiatry, psychology, and criminology and, in each, is founded and reshaped (Jarrett, 2020). Not only is this category of human 'intelligence' reshaped, but even in each field and across each local site, the category remains necessarily plastic so that each institution and field that uses it has the power to make decisions that are not 'automatic' or predetermined. The malleability of categories, which change not only in meaning, but in name, evidence what we call *productively plastic* categories, which allow for categories that may seem rigid and unchangeable to shift and bend with institutional, political, and/or pragmatic needs. Other scholars have highlighted the 'necessary uncertainty' (Millard, in press) inherent in the historical ambiguities surrounding psychopathy and welfare, or the 'ontological anarchy' (Pickersgill, 2014) emerging from the multiplicity of theories and practices attempting to stabilise murky pathological categories. While this body of work makes an argument for the plasticity of categories, this does not mean that they are not productive and forceful. In fact, we argue that some of the violence of

categorisation happens more easily with the plasticity of categories. Further, we argue that the productive plasticity of categories can function to uphold existing power structures or to extend, connect, and amplify surveillance and infrastructural tactics (Molina, this Issue). In other words, the flexibility of categories can sustain and empower existing political regimes, as historically evident, for example, in Francis Galton's work on 'hereditary genius' as a tactic for upholding existing social relations and racial hierarchies (Amaro, 2022; Chapman, 2023; Gould, 1996).

We would be remiss if we did not, in our discussion of the force of categories (particularly the force of their plasticity), mention how the intersection of various categories can produce radically different effects than single categories alone. This can be seen in many of the articles in this special issue; the compounding nature of the historically contingent categories of race, class, crime, and mental health play out in often devastating ways in the work of Aragon and Hudson, for example. However, there is an aspect of this that deserves more attention, specifically, how one category may shape and shift an individual's inclusion in another category. By this, we mean that while formal or informal processes of assessment may guide decisions about inclusion in a category, these decisions are not determined solely by the characteristics of the category itself. Instead, other categories of belonging can intersect, shaping and giving a particular texture to these determinations. For instance, while one might appear firmly situated within Category X, a lack of perceived belonging to Category Y could alter the determination of one's inclusion in Category X.

This special issue seeks to hold together the ever-productive fabrication and manipulation of categories and the ways in which these categories produce material effects. To ground our overarching arguments, this introduction navigates through our critical concerns, using specific examples from this special issue:

1. Productive Assessments, which scrutinise the recursive processes through which the practices of determining whether a subject falls within a given category simultaneously transform the criteria for and constitution of that category.
2. Categories Under Pressure, which examines how ostensibly external forces—sociopolitical, economic, or otherwise—come to exert influence over the determination of what is included within a category, thereby reshaping its boundaries.
3. Outputs Determine Inputs, which explores how the institutional governance mechanisms that a category mobilises—whether through treatment, control, or regulatory measures—retroactively delimit or extend the category's operational scope.

Productive assessments

Categories are, by their nature, contingent on the metrics and practices used to determine who or what fits within them. As such, one aspect of categorisation that is particularly interesting to our analysis is the process or processes of assessment. We are interested not only in how technologies and practices of assessment are used to determine what is included within or outside of a category based on a predetermined set of criteria, but also in how the practices and enactments of assessment themselves shape the contours

of the category. Given our focus on contingency, we are particularly interested in probing how these practices transform and reconfigure the very categories these practices are designed to measure, sense, or determine. In a recursive processing, the tools of measurement become the tools of determining the conditions of measurement themselves. In other words, traits in diagnostic categories shape the category of disease (for example), which they mean to describe. The limits of institutional categories, like the kinds discussed in this special issue, are set in the detailed work of those who create and shape assessments. Many of the articles in this special issue differently unpack, in turn, the ways in which tools of assessment shape categories but we concentrate on two in this section as paradigmatic examples.

An aspect of Alfred Freeborn's paper (this Issue) highlights precisely this: how the diagnostic category of schizophrenia was scrutinised and reshaped through an increased desire for standardised and internationally uniform diagnosis. His case study meticulously narrates a transatlantic project that sought to calibrate the tools for the diagnosis of schizophrenia in a comparative study between psychiatrists in the United Kingdom and the United States of America. As revealed in this account, although the diagnosis existed and was assigned by expert practitioners, the practices used to determine it were inconsistent. As such, in order for the field to understand itself as scientifically valid, psychiatrists were tasked with formulating a standardised approach to diagnosis. Freeborn argues that within the field of clinical psychiatry, by the late 1960s, diagnosis could no longer be viewed as a clinical skill where a patient's condition was discerned through careful observation. Instead, with the deployment of standardised classifications, the quantification of observations, and computational analysis, clinicians began to understand their patients' features as a 'cluster within a vast spectrum of possibilities' (Freeborn, this Issue). Using novel technologies for the time—such as inexpensively produced videotaped interviews with patients and computational analysis—this group of psychiatrists attempted to test out their own diagnostic strategies, to compare them with their US counterpoints, and ultimately, aimed at consensus.

It is essential to highlight how practices of validating the detection of a category and the mechanisms by which an object is determined to be within or outside a category—or, in this case, the observable categories that constitute a diagnostic set—do not necessarily make these determinations more accurate. As Freeborn's case study shows, the US-UK Diagnostic Project did not actually make everyday psychiatric diagnoses more reliable or valid. Instead, in a decade of public crisis, these computer-assisted methods provided a means of measuring and legitimising professional consensus. To this end, the significance of new computational methods was not in validating new classifications—they failed to do this—but in the codification of consensus. Here, the plasticity plays out as a process of reforming not only the category itself but also the disciplinary scaffolding that supports it. The category shifts as the practices that determine it evolve, and this transformation changes how determinations are made, what is understood as clinical expertise, and what is recognised as observable or not. Further to this, the 'presentation' of schizophrenia changes as its diagnostic criteria are narrowed and the disease itself morphs.

Margarita Aragon's article explores the legislative and sociopolitical processes that culminated in the British Mental Deficiency Act 1913, which laid the foundation for the hyper-incarceration of individuals with learning disabilities and others deemed

'defective' by statutory officials—a term that, she argues, effectively placed them outside mainstream humanity (Aragon, this Issue). Aragon does not only provide the UK context for the act within a genealogy of the categorisation, classification, and separation of people deemed to have intellectual disabilities—influenced by efforts by social and medical associations, charities, and eugenicists. Aragon's article focuses on the category 'subjects to be dealt with' used within the mental deficiency legislation to identify so-called 'defectives' whose perceived condition required intervention by statutory authorities. As a category 'subject to be dealt with' at once, intensively targeted carceral power on disability while also working to enmesh cognitive and class deviance more deeply while simultaneously naturalising the broader network of institutions—asylums, workhouses, special schools, prisons, and more—to which disabled, poor, and racialised individuals were subject. Central to Aragon's exploration is the capaciousness of the category of the 'subject to be dealt with'. The flexibility of this category allowed it to be wielded against an expanding array of individuals, as well as justified by both the legislative force and the institutional practices it mobilised.

What is particularly significant for our discussion on how assessment practices influence the categories they are meant to assess is that Aragon identifies the repeated use of the phrase 'subjects to be dealt with' not only in the act and by policymakers but also in a widely used social work manual entitled *Mental Deficiency Practice: The Procedure for the Ascertainment and Disposal of the Mentally Defective* (Shrubsall and Williams, 1932, cited in Aragon, this Issue). Aragon shows how this handbook provided the methods of 'ascertainment' for social workers. Through Aragon's analysis of this handbook, we can see how categories of just who 'needs to be dealt with' are constructed through the 'ascertainment' or assessment process. Recursively, the criterion for selection begins shaping the category itself. The legal category defined in the Mental Deficiency Act is defined yet again (and again) through mechanisms like this popular handbook, which provides both 'exemplary' case study notes—to provide narrative examples of who may just be 'a subject to be dealt with'—and sample ascertainment forms, which questions that collect, for example, family data and conditions of the subject and their living conditions and provide examples of ideal answers. As such, the handbook itself acts towards constructing the 'subject to be dealt with' as an extension of the Mental Deficiency Act, but also, potentially, as one that reshapes and changes the category through its own construction. Notably, the condition of children of wealthier families, for example, was differently described than of their less financially fortunate peers, and, in one example, a female child's molestation was identified within 'abnormal manifestations of sex' and thus her 'feeblemindedness' was to blame for her inability to protect herself. These already socially constructed narratives around poverty and sexuality as they intersect with intellectual disability were written into ascertainment manuals. Aragon asserts that the ideological boundaries of who should be 'dealt with' were both porous and flexible, allowing contradictions within the manuals to provide adaptability for their users.

With these historical examples, we can see how assessment processes are fundamental not only to the determination of the category itself, but equally to how they are sustained and shifted. We want to highlight here how a set of objects is determined not only a priori but, as these examples demonstrate, through continual practice of enactment and redefinition. To put this another way, the practices of assessment rely upon the authority of

the category despite themselves putting the category into question through their redefinition of it. In the next section, we see a very different example of this contingent principle play out in which categories are not transformed through the mechanisms of the determination of what is included in them but, instead, by the set of available responses to the category.

Categories under pressure

In this special issue, many of the categories being discussed can be seen as contingent in a number of significant ways. By this, we mean that they do not emerge—as one might imagine of many categories in the human sciences—from practices of validation; they do not arise organically from the objects they classify; they are neither the products of unbiased observation and analysis nor outcomes of scientific experimentation; nor even the result of shared expectations and processes of differentiation. Rather, these categories are shaped by practical necessities that originate outside the processes we would typically expect to guide such classification within the human sciences. They show not only how categories are (re)constructed through pressure, which necessitates the production of a category, but also how this pressure establishes the categories and allows for their morphing. Here, political motivations, controversies, manufactured needs, institutional demands, and/or public pressures can enact *categories under pressure*.

Julian Molina's article examines the operationalisation of criminological knowledge around race and racism within the UK's law and order 'information infrastructure' (Molina, this Issue). His account provides a key example of how external political and institutional dynamics can reshape categories, data collection, and informational infrastructures. While many of the articles in this special issue deal with different categories of human categories: Molina's is preoccupied with what we might think of as a *category of action* rather than a category of person or a dimensional quality of the human (e.g., race or intelligence), which expands the analysis to demonstrate *categories in use* are both formed and modulate are driven as much by external forces. His contribution provides an example, illustrating how a category may initially be constructed in response to public outcry and controversy but also revealing how, even when developed with the best of intentions, such categories can be rapidly repurposed and institutionalised to produce outcomes contrary to those intended.

Molina's article uses one historical episode to think through issues of membership, categories, and the status of social science within government. Molina examines how civil servants within the UK Home Office in the early 1980s made use of criminological research to formulate a governmental and policing response to a crisis around the category of 'racial attacks'. Concurrently, these same officials also commissioned secret intelligence reports produced by undercover police to understand the dangers posed by anti-racist activists who, in the view of these officials, were opportunistically involved in subversive activities among ethnic minority communities. His analysis reveals a dual dynamic: while the category of 'racial attacks' was initially constructed in response to public demand for action against racial violence, its subsequent deployment served broader state interests, including the intensification of surveillance and information-gathering infrastructures. Rather than merely chronicling the history of racial

categorisation, by focusing on the category of *racial attacks*, this article suggested *what can be done* with such a category as it circulates, packaged as an informational object within the state.

Molina's work illustrates this contradiction, wherein even categories obsessively developed with specific aims, can easily be co-opted and manipulated by institutional forces to achieve outcomes contrary to the forces that set the category in motion. In our reading, Molina's analysis exposes the contingent nature of categories of action, demonstrating that their formation and evolution are driven as much by external political, social, and institutional forces as by any intrinsic or empirical criteria. The categories examined here are dynamic entities, constantly reconfigured in response to changing pressures, yet always in service of broader regimes of power and control.

Outputs determining inputs

In this section, we look at how outputs determine inputs. Or how the possible available 'solutions', treatment, resources, outcomes, and administration that can result from one being categorised come to overdetermine both the category and process of categorisation. This is a bit abstract, but in the examples we walk through here, the available responses to the determinations of mental health and ill health in some way shape those prior determinations. Here institutional capacities, economic rationales, and available avenues of intervention, among others, all play a significant part in determining the categories.

We encounter an instance of this phenomenon in practice in Eoin Fullam's article. His analysis focuses on the growing prevalence of contemporary 'therapy chatbots' or 'mental health' chatbots, alongside an account of the increasing acceptance of computer-mediated mental health interventions. These chatbots are designed to guide users through a range of mental health activities using conversational interfaces. This is operationalised by interpreting the user's textual inputs through a system of keyword recognition, where specific inputs are mapped to predetermined tags ('sad', 'can't sleep', 'relationship', etc.). The chatbot subsequently provides pre-written responses that it predicts to be most appropriate, steering users towards self-help activities—primarily drawn from cognitive behavioural therapy (CBT) and Mindfulness techniques.

Here, the diagnostic categories deployed by the chatbot are not derived from pre-existing clinical definitions or the established set of detectable characteristics that typically underpin such diagnoses. Instead, the categories the app employs are dependent upon a predetermined set of possible 'solutions', so the bot essentially produces something that resembles a diagnostic category. However, this category is shaped not by its own internal coherence but by the limited set of CBT and Mindfulness responses to inputs. There is a self-fulfilling topology at play here. Furthermore, it is driven by the imperative of sustaining continuous user engagement. The decision tree used to arrive at a CBT conclusion is also adaptable, shaped by the economic priorities of the app developer. As Fullam argues, the chatbot team will modify the conversation nodes if they are found to be inhibiting user engagement with the app: 'If enough users halt their engagement at a particular node in the conversation, then the ReMind team take a look at this node to understand why it may be a barrier to progression' (Fullam, this Issue). With this notation in Fullam's article, we see yet again the way that categories, here of behaviour, are malleable. If something

appears not to fit into an expected linear conversation, then the conversation (and therein treatment) shifts to accommodate. In the case of the chatbot, the diagnostic categories it employs are not rooted in a stable, coherent clinical logic but are continually adjusted to align with the predefined set of CBT and Mindfulness responses as well as to maximise user engagement.

Further, Fullam's work shows how, on the user's end, people willingly undergo a process of assessment that uses casual queries ('How is your day?') to ascertain information about the subject's state of mind. Of course, this is a less comprehensive or defining assessment than in Aragon and Freeborn's cases, here the chatbot is making an assessment via the decision tree, and the subject or user follows this path. What is important to note is the recursive aspect of this dynamic—the makers of the chatbot are also following the users' movements and redesigning the intervention accordingly.

In Becka Hudson's article, the category of 'personality disorder' is examined within the British prison system. For us, a key insight is that through this example, she shows how a pre-existing category can undergo significant transformation in response to institutional demands and capacities in ways that reshape institutional practice itself. In this case, Hudson shows how, in response to the perpetual crisis of the British prison system, the notion of 'personality disorder' became both put under pressure (transformed, even) and operationalised. Her analysis reveals how, since the early 2000s in the prison system in England and Wales, this diagnosis has come to encompass a broad spectrum of traits, behaviours, and beliefs. As such, 'personality disorder' functions as a flexible, interpretive framework that mediates the relationship between an imprisoned individual and the evolving structures of penal control—suggesting that it plays an active role in shaping the experiences of imprisoned people and the practices of imprisonment, rather than simply describing them.

As Hudson demonstrates, the persistent issue of mental ill health—the alarming rates of self-harm and suicide, for example—has been central to public and government discussions of the perpetual 'crisis' of the prison system. Mental health conditions are frequently foregrounded, with personality disorder often estimated to be the most over-represented psychiatric diagnosis within the prison estate. Central to Hudson's analysis is the question of the definitional boundaries of 'personality disorder' itself, and how its expansive and contested boundaries as a diagnostic category might facilitate further penal control and normalise the use of incarceration as rehabilitation or therapy. Hudson traces the history of the concept of personality disorder, first introduced in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) in 1952. Since then, the definition and classification of personality disorders have undergone numerous revisions, reflecting shifts in both the DSM and the *International Classification of Diseases* frameworks. The categorical model of discrete types, where an individual either has a disorder or does not, has been replaced in the latest diagnostic guidance by dimensional models. These models are considered to capture a spectrum of personality functioning better, varying in severity and composed of many traits.

Hudson's argument centres on how the elasticity of this diagnostic category was harnessed by policy reforms under New Labour, which introduced the parasitic category of 'dangerous and severe personality disorders' as an object for targeted interventions and legislation. Increasingly, imprisoned people now receive a diagnosis of personality

traits or difficulties without the label of a full-blown disorder. For example, she highlights how the latest National Health Service and HM Prison and Probation Service guidance no longer refers to 'offenders with personality disorder' but instead uses the phrase 'people showing personality difficulties' (Abdullah *et al.*, 2020, cited in Hudson, this Issue). In the context of the prison system, the category, as Hudson highlights, is now 'broader, spectrum-like, and elemental' (Hudson, this Issue). This, as she shows, has significant impacts on the trajectories of people in prison. It both scaffolds institutional conceptions of who incarcerated people are and what is to be done with them—shaping what punishment and rehabilitation come to mean through the category.

In the work of Eoin Fullam and Becka Hudson, we see two distinct examples of how the set of available outputs presupposes inclusion within a category. While examining different contexts (the prison and digital culture), they each illustrate how contingent categories of mental health emerge and undergo significant adaptation to align with the operational capacities of the structures in which they are embedded. These categories, we might say, are parasitic, they derive their legitimacy by drawing on pre-existing clinical constructs while recalibrating these in accordance with the institution's or technology's abilities to respond to such determinations.

Conclusion

The title of this special issue is 'The Material Force of Categories', but perhaps a more accurate (if unwieldy) title would have been 'The Material Force of *Productively Plastic* Categories'. When reading back through the contributions, what struck us most forcefully was the plasticity of the categories deployed. Overall, this special issue reconsiders how the ambivalent or unarticulated aspects of categories have been mobilised in producing structures of order and have material force. With this introduction, we have tried to show how the various articles in this special issue provide examples of the development of categorisation, revealing their capacity to enforce modes of decision making and control that reach far beyond the mere construction of knowledge. Each of the articles clearly demonstrates how categories are not innocent descriptors; they are embedded within institutional, social, cultural, and economic frameworks that organise the boundaries of what 'counts' and in what ways they count. This introduction, therefore, has sought to untangle the intricate web of forces that sustain and scaffold these epistemic structures.

In the final analysis, we trust this introduction underscores how the various articles can be understood to contribute to a discussion of the plasticity of structures of knowledge and the far-reaching effects produced by such expansive categories. More specifically, it probes the ways in which categories of the human sciences are employed for decision making, sorting individuals and groups into manageable entities within institutional and administrative frameworks. This has involved foregrounding both the malleability—how they shift, adapt, and reconfigure—and the material force of these categorial accounts, making them not just tools of governance but dynamic elements that sustain and expand structures of regulation, control, care, management, and logistics. What we have argued in this introduction, and is further developed throughout the contributions to this issue, is that categories of this kind are best understood as 'productively plastic

categories'. This plasticity allows them to be reshaped and redefined, producing new boundaries and applications that extend their material force.

Ultimately, this special issue offers a critical interrogation of the mutable (and immutable) dynamics underpinning categories in the human sciences. By revealing the murky yet enduring nature of categorisation, we hope this issue contributes to a further analysis of how categories emerge and operate, in practice, in multiple ways and can stabilise forms of people management through their very structures of contingency and ambivalence.

Declaration of conflicting interests

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Note

1. This phrase, the 'material force of categories' (Bowker and Star, 1999: 3), piqued our interest and animated the symposium we co-organised at Birkbeck, University of London, in March 2023, which preceded this special issue. We wish to issue a special thank you to all participants in the symposium, including, but not limited to, the authors in this special issue; Sarah Marks, who curated the affiliated exhibition and supported our event; and the editors of *History of the Human Sciences*.

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