

Moving through capacity space: mapping disability and enhancement

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ABSTRACT

In this paper, we highlight some problems for accounts of disability and enhancement that have not been sufficiently addressed in the literature. The reason, we contend, is that contemporary debates that seek to define, characterise or explain the normative valence of disability and enhancement do not pay sufficient attention to (1) a wide range of cases, and (2) the transition between one state and another. In section one, we provide seven cases that might count as disability or enhancement. We explain why (with the exception of the first two, which lay the groundwork for the others) each case might count, and on what basis, and why it is been neglected. Each case is explained as a transition in what we call capacity space. We then argue that no definition of disability or enhancement addresses all of these cases, except for strict welfarist accounts of disability that do not rely on a depiction of any particular capacity. We argue further, however, that this is a serious deficiency of welfarist conceptions of disability. We then address objections to our account.

MAPPING DISABILITY AND ENHANCEMENT

Work in philosophy of disability has grown considerably over the last few years. Evidencing this, the field has witnessed major philosophical monographs and edited volumes.^{1–6} Yet, work in the philosophy of disability often significantly restricts the scope of its claims concerning disability, in particular what kinds of disability the authors purport to address. In Barnes' *The Minority Body*, for example, she intends her argument to apply only to certain sorts of physical impairments. Although acknowledging that his arguments have larger implications, Kaposy focuses the entirety of his recent monograph solely on Down's syndrome. These self-restrictions are typically made for a very good reason: scholars of disability across the humanities and social sciences are acutely aware that disability is an extremely heterogeneous phenomenon.⁷ It is so heterogeneous that some claim the concept of 'disability' is analytically impractical or even vacuous when used without qualification.⁸

Likewise, accounts of disability rarely also account for enhancement.^{9–12} That is, philosophers of disability typically do not think about the way that disability and enhancement might interact. Campbell and Wasserman, in a recent paper, have noted that this lack of attention to enhancement results in what they refer to as an 'asymmetry' around definitions of disability and enhancement. However, this is also for a good reason: proponents of enhancement as a moral obligation are seen as making arguments that rely on the denigration of disabled embodiment and lives.

Yet, the tendency to focus on specific and often paradigmatic cases of disability and elide discussion of enhancement has a serious downside: it has the potential, among other things, to keep us from understanding cases of disability and impairment that are less apparent and well recognised. Aside from limiting our knowledge and understanding, it also keeps us from making interventions or undertaking further research that might concretely assist those populations—or finding ways to address their needs in concert with those of others. Finally, it also has the potential to impede our ability to understand the larger role that assumptions about ability and disability play for people who do not identify as disabled or impaired in any way whatsoever. In short, this is not just a problem for scholarship; this is an issue that has significant political and policy-level ramifications. To get our argument off the ground and in the hopes of directly addressing this larger concern about the state of the field in the philosophy of disability, philosophy and ethics of technology, and related fields, we will refer to the concept of *capacity space* throughout.

By 'capacity space,' we mean the dynamic relationship between an individual person and their social and environmental milieu.¹³ This relationship includes the statistical notion of a cohort, that group against which a given individual is compared in the context of evidence-based research in the life sciences. We argue that the concept of capacity space helps us to (1) understand what holds together the extremely wide range of cases that fall under the concepts of disability and impairment and (2) appreciate the way in which capacity transitions can make one disabled due not simply to changes in one's body or mind, but due to shifts in the dynamic relationship between an individual person and their social and environmental milieu, including their existing or some other cohort. In short, the concept of capacity space helps one to comprehend the variability and breadth of disability as a ubiquitous characteristic of the human species.

Consider first two people, A and B (figure 1). A is an individual who has some capacity a that is the median for their cohort Z , which we take here to be a normal probability distribution $P(C)$. For simplicity, we consider C to describe some linearly indexable capacity. The same applies for individual B, who has capacity b . Note that as individuals, A's and B's capacities do not have a probability assigned to them: that is, the position of a/b is not mapped to $P(C)$. Rather, their position on the y-axis is indicative and to avoid confusion where we display more than one individual in a figure.

A and B' capacities fall within what we would characterise as typical accounts of disability and



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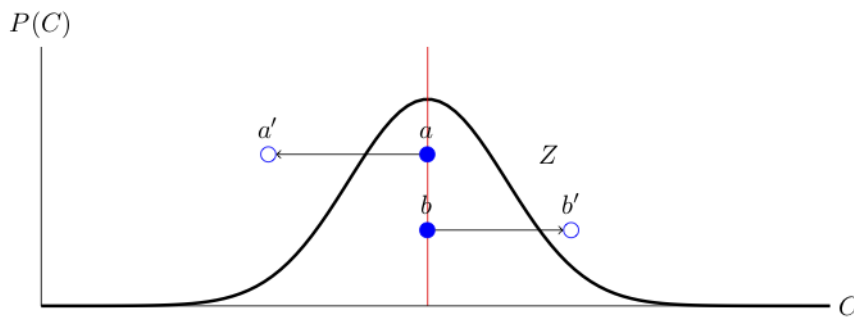


Figure 1 Individuals A and B, describing typical accounts of disability and enhancement, respectively.

enhancement, respectively. Let's say A has their capacity change to a' , where $a' < a$. That is, they have lost cohort-typical function:¹ they have lost a leg or, say, sustained a serious concussion. For B, the converse happens: they—through training, for example, but perhaps also through pharmacological or some other means—gain capacity and occupy b' , above cohort typical functioning. If B's capacities exceeds the maximum of Z —or, say, $3 + SD$ from the median of Z —this would be part of a maximalist species-typical functioning account of enhancement.

Things are not always so simple, however. Consider C (figure 2). If C has capacity c_1 , moving to c_1' leaves them with species-typical functioning. Though they have lost capacity, it is not clear that they have become disabled. However, they may experience something similar to A—for example, a loss of previously routine activities. A member of a military special forces unit, who maintains peak human physical fitness during their enlistment, may find themselves 'reduced' to normal human fitness after they leave the service. For some veterans, this could be experienced as 'disabling.'

To better understand this sort of experience, consider the core insight of social models of disability. On social models, a distinction is made between impairment, the atypicality of one's mind and/or brain, and disability, the social stigmas, oppressions and discriminations that result from others and from institutions treating one negatively on account of one's impairment.¹⁴ On this model, then, the special forces member may find their transition back to 'normal' human physical fitness as an impairment. It is not clear that this transition would result in

them experiencing negative social ramifications, so they may not, according to the social model above, experience disability. However, the experience of becoming so impaired could easily result in various psychosocial harms, including those that do in fact lead them to become disabled in the sense of social models of disability. Failure to reacclimatise to life as a civilian may result in severe depression. We know, further, that severe depression is a well-known case of an impairment that, combined with certain current features of society (eg, a lack of available mental healthcare, stigma, etc) renders one disabled in many different ways (loss of friends due to stigma, struggles with gaining or maintaining employment due to unaccommodating workplace environments, etc).

In contrast, consider if C begins in c_2 on the right-hand side of capacity space, then transitions to the left-hand side. On a strict species-typical functioning account, we might consider the 'disability' portion of their transition to be only the part of the line c_2c_2' that lies to the left of the median to constitute disability. But, depending on our answers to c_1c_1' above, we might also consider the right-hand portion to be disabling as well, rather than merely 'disenhancement'¹⁵ or something similar.

Consider now, D (figure 3), who does not change their capacities. However, their cohort does, from Z to Z' . This could be the same population, that is, all the members of Z could also occupy some position in Z' . However, this need not be the case, for example, if the reason for the change from Z to Z' is because a large number of people in Z died, or because D moves into a new population with drastically different capacity. For example,

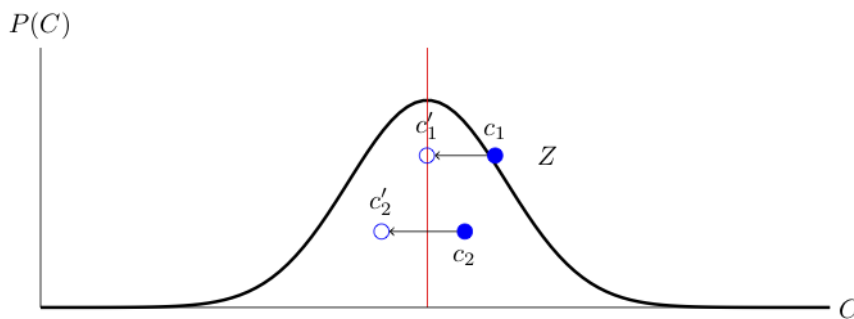


Figure 2 Individual C in two possible beginning capacities, c_1 and c_2 , describing hard cases of disability/disenhancement.

¹It is possible to redo these figures using mean, or some other sense of typicality. Moreover, we acknowledge that perhaps typicality is represented by some deviance beyond a standard deviation, say $\text{past} \pm \sigma_1$. The precise mathematical formulation for this, however, is not central to our paper.

so-called 'dysgenic' effects arose in the aftermath of the First World War, in which young men drafted for service in the war

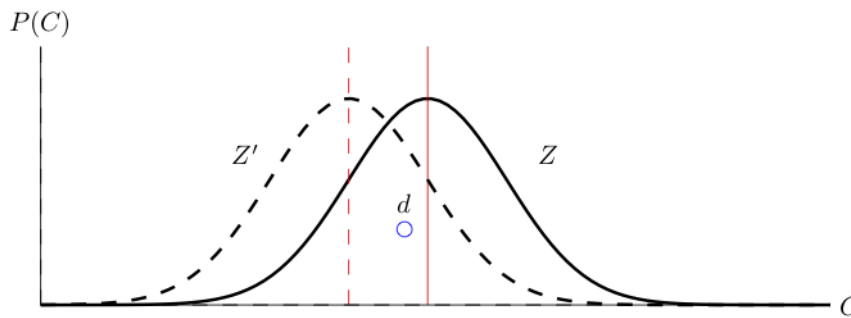


Figure 3 Individual D, who does not change capacities but whose cohort changes.

were killed in very high numbers, leaving primarily those who did not fit the threshold of capacity for service in the front lines alive. To be ‘disabled’ immediately prior to 1914 in England could well result in the same person *d* being statistically normal, or even ‘enhanced’ in virtue of the change in a population’s capacities.

Next, consider E (figure 4) whose capacity oscillates, so they have capacities e_{2t} and e_{2t-1} for all time intervals t . That is, in the first-time interval they move from state e_1 to e_2 , becoming statistically normal in their capacities, but from time interval $t=1$ to time interval $t=2$, they lose capacity again. This is not atypical of people who suffer from chronic pain. If the absence of pain is (perhaps controversially so for anyone above a certain age) statistically normal, then at times a person with chronic pain can live a very close to statistically normal life. This is particularly true given that experiences of pain change over time, and a person’s body can adapt so they do not experience pain in the same way as those who have only recently, or acutely, been injured. However, the pain is at other times totally incapacitating such that the person is bedridden, or must use various assistive mobility devices, or requires some other support to carry out tasks that a week, or a day, or even an hour ago they were able to carry out.

A similar problem faces E if they occupy they occupy e'_{2t} and e'_{2t-1} . Imagine this person has a hypermobility condition, such as Ehlers-Danlos syndrome (EDS), but it is fairly mild relative to other instances of the condition. At times, the person is simply more flexible and mobile than their cohort, making them a better sportsperson. At other times, their joints dislocate unexpectedly, and they are incapacitated in significant ways. Is this person enhanced, disabled, or both, relative to their cohort?

The answer is not clear in either case, for contemporary accounts of disability or enhancement undertreat the issue of inhabiting multiple states over time. Most accounts are

atemporal, paying little or insufficient attention to tracking changes in capacity over a person’s life course, or even over very short periods of time. This lack of sustained attention to the ways in which people move in and out of states of impairment and disability marks a serious lacuna in the literature.

Consider now two cases that track combinations of the above. In figure 5, we can imagine a person F with a similar condition to E. However, F’s condition has now progressed to the point of degeneration. They begin in f , and then over time progress to f' , f'' and f''' . In both f and f' , this person occupies capacity space above the mean. In f'' and f''' , they occupy capacity space below the median. Depending on how we think about C and E, this person could be merely disenanced in f and f' , and disabled in f'' and f''' . However, they might also be understood to *have a disability* that only *presents itself* in f'' , and are either non-disabled or even enhanced in f and f' .

In our final example (figure 6), we can again imagine a veteran G much like our veteran from C. *Within their cohort during deployment (Z')*, their capacity within their cohort g is less than median, though they are fitter than the median of the total population (Z). As they age, retire, and grow old, all veterans lose functioning (Z''). However, G’s position g' *within* their cohort of veterans stays the same, and veterans as a whole remain somewhat more capable (in this capacity) than the rest of the population. Here, the status of G as disabled or enhanced may depend on:

1. Their position within their current cohort: both g' and g'' are less than the median capacity of their respective cohort, and so in both cases G is disabled (in the same way as A).
2. Their position relative to the entire population: both g' and g'' are greater than the median of Z, and thus G is enhanced (although to greater or lesser degrees).

This case could be even more complicated in case where veteran populations start out with greater capacities than the

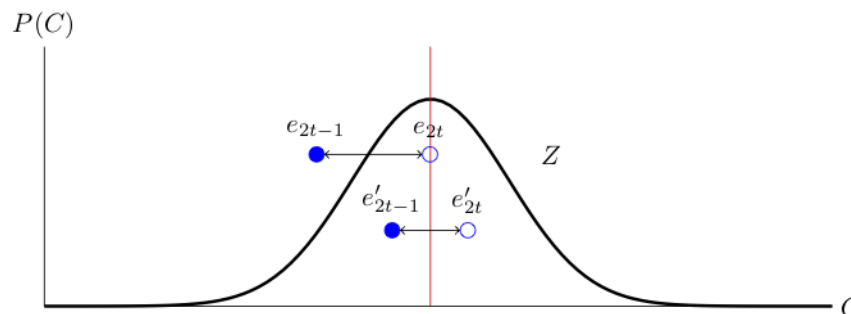


Figure 4 Individual E, whose capacities oscillate.

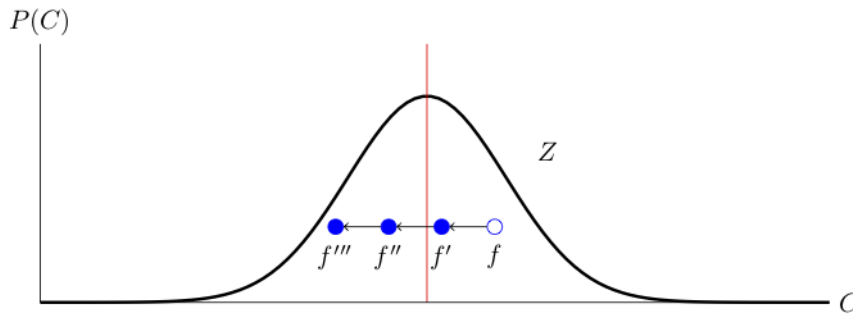


Figure 5 Individual F, whose capacities degenerate.

general population, but wind up with less of a capacity after they retire, that is, if the movement of the veteran population were to Z' to Z , and Z'' described the general population. In that case, G might only be impaired or disabled on one side of the median of Z'' , or on both, depending on how we understand disability.

DISCUSSION

Heeding the work of Barnes as well as that of Campbell and Wasserman, we think the following approach is a better option: there is no fact of the matter concerning what counts as ‘disabled’ or ‘enhanced’ as such. Rather, there are a series of overlapping and contested conceptions, which may include (or not) a broad account of life plans contextualised by one’s socio-cultural and/or environmental milieu. Whether and how these conceptions fit the above cases will turn on how each conception treats the significance of the relative position in and movement through capacity space of a given individual. That is to say, it will turn on the dynamic relationship between an individual person and their social and environmental milieu. Some conceptions do not include this at all. However, our cases motivate the belief that it makes more sense to interrogate relevant life paths and sociopolitical contexts, in many cases, than it does to attempt to cut reality at the joints in an effort to conjure a static and all-encompassing definition of disability.

When do particular trajectories matter and why?

All of the above cases describe an individual living a life within a cohort in a given social context. This approach is consistent with social models of disability, but our cases strongly emphasise that transitions matter when we think about disability and

enhancement. Disabilities are dynamic phenomena. One does not simply have a disability; one is continually in the process of becoming (and being considered as) more or less abled or disabled as one navigates capacity space and as the distribution of capacities around one and the values assigned to them in a given social, political and historical changes.

This is less obvious to ostensibly able-bodied individuals, for whom capacity on any given day may appear to be static. But that is ultimately an illusion if one reflects upon the fluctuations in energy, attention, and ability, among other things, that span any given day. Individuals living with disabilities, however, may experience dramatic changes in capacity that render them unable to perform tasks that were previously routine. Moreover, this ability may return in time, for some, meaning that disability can come with its own transient reductions or expansions in capacities. Alternatively, some individuals living with disabilities may experience their abilities about as statically as an ostensibly able-bodied individual, for example, those with certain sorts of congenital or long-term acquired mobility impairments. The point is that the transition any given person makes in capacity space—whether at the level of a day or over the course of decades—will be determinate for understanding the *meaning* of disability and/or impairment for them.

Understanding and accommodating these complex and variable trajectories is a challenge for disability theory, policy, and law that takes as its starting point—for understandable historical reasons—certain kinds of conditions that are more static in nature. All significant trajectories matter, but we are in no way suggesting that they all matter in the same way or in the same contexts. Disabilities that involve a greater variation in capacities

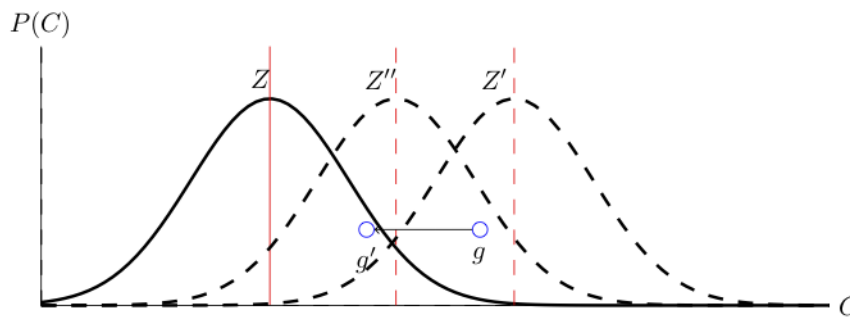


Figure 6 Individual G, whose sub-cohort $Z_{1/2}'$ is already distinct from the primary cohort Z, but who moves with their cohort toward Z. We assume that the members of $Z_{1/2}'$ are also counted in Z. Distributions and their spacing are not to scale.

may require support that is less discussed in popular debates concerning disability, such as greater flexibility in working hours and higher levels of interpersonal as well as other sorts of support.

Which cohort?

The next important dimension to consider when we think about disability and/or enhancement is those relative to whom we are disabled and/or enhanced. There are a number of possibilities, but none of them are sufficient to give a complete understanding of disability. This is a particular and well-documented struggle for species-typical functioning accounts of disability, where the choice of normal distribution may elide the complexities of health when disabled, but also at the intersection of sex, gender, race, and other important sites that too often result in social injustice.¹⁶

One obvious cohort to consider is the cohort of all living humans. This is useful when we consider, for example, capacities such as those that afford ambulation. For example, the construction of ramps to allow access for those who use wheelchairs, or others who are not best served by stairs to access certain areas, might be best thought of in terms of the cohort containing all humans.

However, treating all of humanity as the only cohort can easily distort an analysis of disability. Consider, for example, disability associated with senescence or the biological effects of ageing. In this, comparing the capacity of older persons to the cohort of all living humans may give us information on, for example, aggregate issues that arise in the context of an ageing population. However, it might not give us reliable information on what older people need qua older people because some capacities are relative to one's age peers. Treating disability with the referent of 'one's age cohort' may give us additional information about the needs of older persons.

An age cohort might also be the appropriate referent in cases of disability brought about by war. Returning service personnel and other survivors of war frequently return with advanced lower back pain, and other injuries that are more common in older populations. However, what may make them disabled in the social models' sense is their relationship to their age cohort. Veterans aged 25–30 years old with advanced lower back pain may find their impairment prevents them from working in civilian life among a cohort of colleagues—and competitors—that do not have persistent lower back pain, and thus are able to participate in different kinds of activity, for longer, and with fewer consequences. Part of what makes injuries sustained by (particularly young) veterans disabling is that societies are not equipped to support young people with significant impairments, even if those impairments are very common in later years.

Having said this, an age-based cohort will not capture any number of important experiential facets. Some may be highly localised to one's intimate or near-intimate social group and the many different sorts of activities (and related abilities) around which these groups coalesce (ranging from devout belief in the divine to playing a particular video game well). Others, still, may be limited in the degree to which they can track meaningful properties of the world: while class is an important element of social analysis, socioeconomic class as an indicator of poverty is well critiqued for eliding crucial elements of labour that are gendered and racialised.¹⁷

Our aim here is not to argue for the best conception of a cohort. Nor is it to suggest that age is or ought to be the only kind of distinction we make about a cohort; sex, gender, race, class and a range of other social dimensions will almost certainly

be important for certain kinds of analysis about disability and enhancement. Rather, we argue that a focus on capacity space shows how the role of cohorts is in fact central to understanding the distinctions between disability/impairment and enhancement and the varied experiences to which these terms relate. It is also to show that greater attention to the roles of variability and transition in the dynamic relationship between an individual and their environment, viz., greater attention to capacity space, is necessary for these debates.

OBJECTIONS

The challenge from welfarism

One easy reply to all of this is that we have simply shown a welfarist account of disability is the best account. Such a reply would begin by noting that many of the challenges we have described above are in a family of challenges familiar to the species-typical functioning account of disability and enhancement.¹⁸ However, if what matters is not how a person functions, but how it impacts their well-being, then many of these problems can be addressed.

We take this response to be paradigmatic of the welfarist account of disability and enhancement.^{19 20} This account conceives of disability as any stable physiological or psychological property of a subject *S* that leads to a significant reduction of *S*'s level of well-being in some circumstance, excluding the effect that this condition has on well-being that is due to prejudice against *S* by members of *S*'s society.²¹ The welfarist account of enhancement is similar, except that it characterises enhancement as a property that leads to a significant increase in *S*'s well-being in some circumstance.²²

One major strength here of the welfarist account is that it does not struggle with issues of valence, in the sense that the typical-functioning account might. That is, a welfarist account might claim that individual *C* above is disabled, or enhanced, just in virtue of the welfare they gain or lose. Welfarists have argued that some kind of reductions in capacities, including in intelligence or other paradigmatic targets for enhancement, might constitute enhancements in the right circumstance.¹¹

However, the stability of these properties are a challenge for welfarist models of enhancement and disability. Not all instances of welfarist accounts of disability and/or enhancement feature a stability criterion, and authors may distinguish it by applying stability to disability but not enhancement. Yet some concept of stability is typically required so that not simply any transient decrease or increase in well-being is seen as disability or enhancement.²⁰ Put another way, the concept of stability does the work that, for example, merely waking up on the wrong side of the bed is not disability and simply seeing a beautiful sunset is not an enhancement—though, of course, proponents of enhancement no doubt wish for stability requirements to be loosened for enhancement in particular so as to accommodate for example, pharmacological enhancements.²³

A concept of stability raises a problem for welfarist versions of disability because, as we note, there are a range of physical and psychological properties welfarists would want to treat as disability that are not 'stable' under a common understanding. *E*'s hypermobile EDS can be highly unstable but it would be strange to exclude such a diagnosis as disability on this front alone.

One way a welfarist might avoid this is to say, 'well, what we care about is the underlying genetic pathology. So, in the case of EDS, there is some stable genetic factor that constitutes the relevant intrinsic physiological property that entails disability.' This, however, seems to run welfarists into larger problems surrounding the relationship between the properties that constitute disability or enhancement as well as circumstances in which they arise. At

certain times, for some people, a condition such as EDS may be enhancing *qua* well-being improving or as in the case of some enhancement literature, increase their chances of leading a good life. The welfare enhancing effects of this condition might persist even after the pathology of EDS asserts itself in (parallel, other) well-being reducing ways, if it gives E a leg up in life early in life. More importantly, if the phenotype behind EDS—which, like many complex impairments, is often diagnosed symptomatically, not genetically—is not what counts as a relevant property, then what does? It seems strange to call it a circumstance in the welfarist sense, as it is part of a human's physiology.

There is moreover a challenge for welfarist accounts not just in the stability of traits, but in stability of circumstances. Welfarist accounts surely allow for a change of circumstances, but it is unclear the degree that they accommodate unstable or rapidly varying sets of circumstances. Individual D or G, for example, might be veterans coming home who has trouble adjusting to civilian life. But we could imagine a warfighter given drugs that moderate aggression,^{24 25} where such an intervention is beneficial in combat but harmful (to the warfighter among others) in engaging with local civilians. This kind of variation could be very quick, a matter of minutes: is the variation between circumstances something the welfarist model can handle? Similar to recent concerns about social discrimination and disability, to reduce disability or enhancement to merely good-in-circumstance-X, where circumstance X is very narrow and transient, does not seem to mesh with welfarist aims.²⁶

Without revision, welfarist accounts of disability do not have good answers for instability—that is, the tendency for some disabled and/or enhanced people's properties or circumstances to vary rapidly with time—that arguably, at least at times, entail disability or enhancement. This is particularly true of impairments that entail disability because of their instability. Rather, welfarism appears committed to conceive of disability and enhancement simply in terms of whether one's life goes better or worse than it was, or could be. But such an incredibly simplistic version of 'bad-difference' view of disability has been roundly discredited.²⁷ We think this holds true for enhancements; moreover, we think such a thin version of these concepts is largely discordant with welfarist aims.

Overinclusiveness

The following further objection, then, could arise. A disability scholar could assert that our account creates too much 'new disability.' That is, an important component of disability critiques and of disability politics more broadly is generated by focusing on particular kinds of experiences of impairment. On this view, we risk diluting the force of analysis for scholars and activists by expanding the sphere of what counts and, thereby, what might demand moral, legal, social and political redress.

This concern has multiple dimensions. One issue concerns strategy about which disabilities get political focus and which are attended to. This is a serious concern. The battle for disability rights is long and protracted, gains up through today have been hard won, and there are forces actively trying to undermine them. Yes, the Americans with Disabilities Act (ADA) exists, but there is a long history of people with disabilities struggling to get their needs recognised even under its framework, and, what's more, there have been (and still are today) efforts to undo the progress afforded by the ADA. Furthermore, the presence of 'invisible' disabilities in particular is difficult to ascertain, and it remains a continued source of injustice for those who experience chronic diseases, mental health issues, or other impairments that are not easily recognisable (or diagnosable).

Another problem concerns what we could call moral focus. That is, given the project of disability is in part ameliorative, a critic might be concerned that we are not keeping the object of our normative concern on people with disabilities who historically and/or today face the most oppression. Not all kinds of disability, on our account, are tied to the kinds of structural injustices that are faced by people with significant mobility impairments, for example, a group of people with disabilities who have often functioned as a synecdoche for 'being disabled' in the public/political imaginary.

On both fronts, a critic could say: 'Politically, I don't want to start thinking of rich, elite athletes who are dealing with becoming 'less athletic' in the same camp as, say, kids who, in some states, are institutionalized because of their identity. Nor do I want to consider them as being in the same camp as people living in severe chronic pain who are being demonized and whose health is being actively threatened because of the political responses to the opioid epidemic created by Big Pharma.' Both the political and moral components of this objection are strong. Activists face problems that come with limited resources, and they face the threat that their movements will be appropriated by those in power to serve their own ends.

We do indeed see our account as expanding the analysis of what constitutes disability and enhancement. This is in part the point. Yet, we take the upshot of this expansion to *not* dilute concerns relating to disability, impairment and enhancement, but instead to better equip us to think through those concerns—and to do so without unreflectively and automatically privileging certain sorts of disability experiences above others. Historically, analyses of disability have neglected certain kinds of non-typical capacity that share similar features to more paradigmatic forms of disability. Conditions like chronic pain, trauma, and specific experiences of disability that pertain to veterans, are under-explored in philosophy of disability, disability studies, and in the wide array of bioethical literature that critically engages disability.^{28–32} Our model gives a way to characterise and further investigate these as disabilities in the relevant sense.

To return to experiences of ageing in particular, our model gives us a way to understand ageing as a specific phenomenon and also as a phenomenon that entails both impairment and disability. This, in principle, allows us to separate ageing *qua* ageing from ageing *qua* impairment as well as ageing *qua* disability in theoretically and practically important ways. In the context of aging-related diseases and disability, such as Alzheimer's disease, this is vital to understanding the kinds of needs ageing populations require to function and flourish. It further helps us understand why and how impairments that come along with ageing—and resultant disabilities in the social model's sense—can be experienced very differently between people even if they are the 'same' impairment or 'same' disability.

Concerns from perspective

This dovetails in a final potential objection. We have characterised disability in the following way: as the dynamic relationship between (1) an individual's capacities in time; (2) the relation between those capacities and those of their cohort; (3) the relationship between those capacities, those of their cohort, and the larger social and environmental milieu in which lives, (4) the complex transition between different capacity states captured by (1)–(3), and (5) the ensuing alteration with respect to one's lived experience as a whole as well as the meaningfulness of any given impairment or disability for an individual. One could argue, however, that this neglects other important ways of understanding disability.

In particular, one could argue that this arguably public-health oriented analysis fails to sufficiently account for phenomenological and other first-person driven accounts of disability^{33 34} as well as more political accounts of disability, such as those that take into account the role of colonialism and other forms of state-sanctioned violence that has caused countless millions to become impaired.^{35–37}

Our response is that we take those accounts very seriously, and we understand our analysis to in fact detail the importance of and provide further justification and support for such research moving forward. However, work that provides genealogical and historical (as well as historiographical) accounts,³⁸ or relational accounts of disability,³⁹ often focus on the question of how society understands the various meanings of disability, and how such understanding came to do so. That is, such work asks the question about how implicit or explicit conceptions of disability, and the value of life with disability, shape and are shaped by politics. Our project is orthogonal to theirs: we want to understand how an individual *relates* to their environment, and what that means for their lived experience of disability. We don't deny the importance of other work that accepts relational or historical formulations of disability, but that is not our project in this study.

In particular, our work characterises the distinct contribution of

- a. the process of becoming disabled and/or enhanced.
- b. the relationship between the meaning, significance, and experience of being disabled or enhanced, and the factors of
 - i. Temporality, the process by which our capacities change over time, and
 - ii. Group cohorts, the groups, if any, by which we mark our changes in capacity.

Because the transition between capacity states is so important, further research concerning how it feels to become disabled, or enhanced—and the many liminal cases discussed above—is a central claim in need of further exploration. We have offered the idea of capacity space as an organising concept for such research. While more detailed work on these concerns is beyond the scope of this paper, we hope to have made room for further conceptual and empirical research into the role of capacity spaces for research concerning disability and enhancement and their relationship.

CONCLUSION

Our account demonstrates that the relationship between an individual's capacity and their physical and social environment is more complicated and dynamic than typically described in that literature. In part, this complexity rests on the nature of the capacity space transition and the relative position of the starting and end points in that transition temporally, both at micro and macro levels. It also depends on the specifics of what counts as the environment and what types of supports—interpersonal, institutional, and the like—are meaningfully available within it.

More important, however, we believe our account shows (again) the importance of recognising that at the level of the political, the category of disability serves an ameliorative function, as does enhancement. That is to say, debates concerning disability and enhancement are often understood to advance a particular set of moral projects, not least of which is an increase in human flourishing. We think this (?) ought to be acknowledged by the welfarist account of disability and

enhancement, which we view as the account closest to what we have developed here. Reducing disability and enhancement to mere welfare, which our account shows is what is entailed if the welfarist conception does not account appropriately for the stability of capacities, fails to take into account these varied moral projects, and if it does, it simply claims they are part of a larger welfarist calculus. The most famous welfarist theses, however—animal liberation, duties to the global poor, and the nature of liberty—have never simply stated that these objects ought to be reduced to welfare. They make the case for why we ought to pay attention to certain features of the world, even if all we care about in the world is its support of welfare. And, to be clear, it is far from clear that that is all we should care about.⁴⁰

Our project demonstrates, further, that the complexity of disability and enhancement means that moral projects aimed at promoting justice for the disabled (or (dis/un)enhanced) must necessarily be pluralistic. This complexity has been missed by welfarist and non-welfarist accounts of disability and enhancement. We have provided a series of cases to illuminate where, and why, this complexity occurs, and how we might better include it in thinking about disability and enhancement.

By developing the concept of *capacity space*, we have offered a novel theoretical tool to explore disability and enhancement, one which more accurately broadens the scope of what constitutes disability or enhancement in the first place, and why. This paper is exploratory, in the sense that the cases here are by no means exhaustive of the other possible forms disability and enhancement might take. However, it provides food for thought as to how conventional accounts of disability might fail to cover the contours of different kinds of experience of disability and enhancement as people actually experience them.

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