

# How Does Disability Affect Wellbeing? A Literature Review and Philosophical Analysis

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**ABSTRACT:** The question of how disability affects wellbeing has occupied a number of philosophers in recent years. However, this literature has proceeded without a careful examination of the fairly vast empirical research on the topic. In this paper, I review the scholarly literature and discuss some philosophically-relevant aspects of it. On average, those with disabilities have a significantly lower level of wellbeing than those without disabilities. Furthermore, there is strong evidence that this reduction in wellbeing is not due *entirely* to ableist factors. Hence, I argue that it shows that the *Mere Difference View* of disability is most likely false. However, the literature indeed shows that disabled people typically live good lives. Thus, despite its rejection of the Mere Difference View, it still upholds a disability-*affirmative* view. These findings allow for a measured critique of some of Peter Singer's writings on disability.

## 1. Introduction

The question of how disability affects wellbeing/life-satisfaction has occupied a number of philosophers as well as scholars in other fields in recent years.<sup>1</sup> Perhaps most prominently among philosophers, Elizabeth Barnes, in her book *The Minority Body* (2016), has argued that disability is a *mere difference*—that acquiring a disability does not on its own make one's life go worse, although in an ableist society, disabled people<sup>2</sup> perhaps are more likely to *live* worse lives. To fully assess whether disability is indeed intrinsically a mere difference, we need to assess

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<sup>1</sup> Aas (2020); Bickenbach (2020); Shea (2019); Campbell and Stramondo (2017); Barnes (2016); Kahane and Savulescu (2016); Wasserman and Asch (2013); Schramme (2013); Bagenstos and Schlanger (2007); McMahan (2005).

<sup>2</sup> I will use the phrase "disabled people" for the same reasons given by Barnes (2016, 5–6); see also Nadelhoffer (2022, en. 3).

the evidence in support of it. Barnes approvingly quotes a pair of legal scholars who summarize the literature as follows: “a massive body of research has demonstrated that people who acquire a range of disabilities typically do not experience much or any permanent reduction in the enjoyment of life” (Bagenstos and Schlanger 2007, 763, quoted by Barnes Ch. 2 n. 21). As I will show in this paper, (a) this is probably not true, and (b) the empirical evidence brought forth by supporters of the mere difference view does not give much support to the view. This paper reports the results of a philosophically-informed literature review of the relevant empirical research concerning the relationship between disability and wellbeing. Its findings are that (1) on average, those with disabilities have a significantly lower level of wellbeing than those without disabilities; (2) this lowered level of wellbeing endures across time; (3) this lowered level of wellbeing is probably not *fully* due to ableism or to society’s lack of accommodation of disabled people; (4) disabled people in wealthy countries nevertheless typically do lead *good* lives; and (5) individuals with some *congenital* disabilities do *not* experience as much of a lower level of wellbeing than those without disabilities.

Although this paper rejects the view that disabilities are mere differences, it still maintains a disability-affirmative perspective, as in Swain and French (2000, 2008). According to this model, it is not the case that disabled people “will necessarily, simply because of being impaired, experience their lives and themselves as personal tragedies” (2008, 75–76). Instead, the lives of disabled people are typically good lives, and there should be more of a focus on the *positive* aspects of being disabled, which in some cases are not possessed by those who are non-disabled. Furthermore, there is thus good reason for disabled people to have *pride* in being disabled. All these affirmative claims are consistent with my conclusion that it is likely that disabled people have, on average, a lower level of wellbeing than those without disabilities.<sup>3</sup>

## 2. The Mere-difference View of Disability

According to the *mere-difference view* [hereafter MDV], which is attributable to many disability rights activists (see Johnson 2003, Triano 2006), having a disability is not intrinsically a bad thing. Here is Barnes (2016, 55):

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<sup>3</sup> It is common for philosophers writing on the issue of the relation between disability and wellbeing to discuss their own (or a family member’s) disability status (e.g., Barnes [2016, preface]; Nadelhoffer [2022]; Gould [2022, 495]; Setiya [2022, Ch. 1]). My own interest in the topic comes in part from my own experience with chronic migraines over several decades. Chronic migraines have had, I believe, a deleterious effect on my wellbeing, for a number of reasons. Although I am privileged and fortunate in many respects, I should disclose that it is difficult for me to view my own experience with migraine as a “mere difference”, as most of the negative aspects of my migraine experience are not attributable to ableism (though some are). As Susan Honeyman writes (2016, 4), “migraineurs are unlikely to celebrate their pain as an embraceable difference”. See also Marsh (2020) for more discussion of negative disability testimony.

According to *bad-difference* views of disability, not only is having a disability a bad thing, having a disability would still be a bad thing even if society was fully accommodating of disabled people. In contrast, let's call views that deny this 'mere-difference' views of disability. According to mere-difference views of disability, having a disability makes you physically non-standard, but it doesn't (by itself or automatically) make you worse off.

Of course, no one should deny that, for *many* individuals, having a disability is a neutral or even a good thing. As Barnes points out (§3.5), many people are perfectly happy with their disabilities, and some are even happier than they were prior to being disabled. So, there is certainly no *necessary* connection between disability and loss of wellbeing (or, at least, happiness); the badness of disability for a given individual likely will rest in some *relation* between that individual's preferences and the individual's disabled physical state.<sup>4</sup> So, by this standard, disabilities should never be seen as *intrinsically* bad.

This puts some pressure on a defender of bad-difference views [hereafter BDV] to clarify the notion that disability is *intrinsically* bad. One can imagine a very *thin* understanding of *intrinsic*, by which *x* is intrinsically bad for a person *P* if and only if it is bad for *P* regardless of *P*'s *other* properties (such as their preferences) and regardless of *x*'s metaphysically contingent consequences on *P*. By this standard, disability is bad for a person if and only if there is something in the *nature* of the disability itself that is intrinsically bad.

One might hold this kind of BDV under a substantive theory of wellbeing according to which a disability is in direct violation of what the theory holds to be of optimal wellbeing. For instance, one might hold that (A) it is intrinsic to certain disabilities that they include an increase in pain, and hedonism is true; or (B) disability intrinsically involves some deficit or bodily impairment that detracts from an individual's fulfillment of aspects in an objective list of human goods. Whether disability is intrinsically bad (in this thin sense) depends on what the true theory of wellbeing is, and that is not something that I wish to adjudicate here. What is of more interest for my purposes is not the version of BDV using the thin notion of *intrinsic* but one that is more applicable to ordinary people who possess desires and preferences, for reasons I shall now set out.<sup>5</sup>

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<sup>4</sup> It should be noted that Barnes limits her discussion to those with physical disabilities. See also §4.1 below.

<sup>5</sup> In fact, Barnes discusses both hedonism (§2.1.4) and objective list (§2.2) views, and argues that MDV is consistent with both, on the grounds that even disabilities that are painful in themselves painful do not *necessarily* lead to a net loss in pain, and even disabilities that are a detriment to some value on an objective list do not necessarily lead to a net loss in total fulfillment of features of the objective list. I will not object to this response, except to point out that it appeals to a notion

Barnes does not quite put it this way, but the spirit of one of the main arguments for MDV (Barnes 2016, Ch. 3, esp. 132ff; also see Johnson 2003 and Setiya 2022, 21–22) is something like the following. For *every* human being, there are an infinite number of *assets*—skills or resources that aid, or counterfactually would aid, in the individual’s wellbeing (see Dunn and Dougherty 2005)—that the individual *lacks*. Adding to the already infinite list of unpossessed assets does nothing to expand the size of the list, or change the proportion of assets that the individual has to the infinite assets that the individual lacks. Disabled people still maintain some assets, and lack an infinite number of assets, just like everyone else. And thus acquiring a disability should not have any *enduring* or intrinsic negative impact on one’s wellbeing.<sup>6</sup>

I am only moved a small amount by this armchair argument. Human wellbeing does not arise simply from the poignant fact that we are all—disabled and non-disabled alike—finite mortal beings possessing some wonderful assets and also lacking an infinite number of assets. We are somewhat good at appreciating the limited assets that we have in our finite lives, in non-comparative terms. However, our subjective states are in fact affected by comparisons, and it is well-known that part of our life-satisfaction depends on our comparisons with others (Fiske 2010). Furthermore, part of our fragility as humans is that we are not perfect adapters to things that we take ourselves to miss out on (independent of our comparisons to others). A proper view of disability should not only accept that most of us are imperfect in our ability to adapt to circumstance; it should accept the consequence that this might lead to enduringly worse outcomes for those who face *more* challenges than others. And what the empirical data show (see §4 below) is that disabled people do have, on average, lower wellbeing than non-disabled people, and furthermore, that this is not entirely due to society’s failure to accommodate disability.

Some people have preferences whereby an acquired disability makes them worse off; one whose core identity involves running, but loses the ability to run, will most likely be made worse off by disability (see Barnes 2016, 85). Although this is not due to society’s inability to accommodate them, this loss of welfare is arguably still not *intrinsic* to the disability since without such prior preferences, another person would *not* be made worse off in that way by the same disability. But whether we ought to

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of “intrinsic” that considers some further contingent or instrumental effects of disabilities on wellbeing. So even Barnes must not understand “intrinsic” in such a thin sense.

<sup>6</sup> Campbell and Stramondo (2016, 157–158) give a similar argument. They write that although being disabled cuts off some avenues to achieving intrinsic goods, there are still other ones available to disabled people. This seems right to me, but just because some avenues remain, it does not mean that in general, being disabled does not make it *harder* to achieve these intrinsic goods. (Compare: being from a highly disadvantaged social class closes off many paths to having a successful career. Still, there are some ways in which those from disadvantaged groups to succeed. But this fact does not entail that the ways in which being in a disadvantaged social class limits avenues of success is negligible.)

call this an *intrinsic* effect of disability or not is not the question that *matters* in an assessment of MDV. Because *everyone* has *some* preferences, and sometimes these preferences form parts of individuals' psychological identity, it does not make sense to think of disability having effects on people aside from *any* preferences. Thus the more pertinent empirical questions are (1) whether people with disabilities have, on average, lower levels of wellbeing as those without disabilities, and (2) if so, whether it is due to direct effects of disability on them (given their preferences) or due to society's failure to be accommodating.

Through the rest of this paper, then, when I discuss "intrinsic" effects of disability, it will be a more *thick* sense of *intrinsic*. I will simply use that phrase to denote effects of disability on the typical disabled human person that are not due to societal failures to accommodate the person's disability, as in the spirit of Barnes's initial statement of MDV/BDV that I give at the beginning of this section.

For a number of reasons, calling the alternative to MDV the "bad difference view" is misleading. As above, having a disability is *not* a bad difference for many. Outcomes from having a disability are highly variable, but on *average* lead to lower outcomes in terms of wellbeing, even when factoring out ableist factors. In the spirit of Nadelhoffer (2022), a better name than BDV is *negatively-averaged disability variantism*, or (hereafter) *NADV*.

Campbell and Stramondo (2017, 161) argue (following Amundson 2005) that because of the significant ways in which disability changes individual lives, it is impossible to compare whether acquiring a disability makes a life worse (or better) than it otherwise would have been.<sup>7</sup> At an individual level, multiple factors may confound any attempt to determine what has caused an individual to have the level of wellbeing that they have. They write (161):

First, there is what might be called "counterfactual opacity." In matters as complex as how a person's life unfolds, we face insuperable epistemic limitations on our ability to know what might have been. It is often impossible to say how a person's life would have gone had she not been disabled. Perhaps she would have flourished, perhaps not. Perhaps her disability would have enriched her experience of the world, or perhaps she would have been hit by a bus!

Additionally, Campbell and Stramondo (2016, 160) write:

[O]ne's disability, in combination with the diverse contingencies of life, can easily lead to all kinds of variations in well-being—even among sim-

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<sup>7</sup> I should note that Campbell and Stramondo (2016) explicitly accept that some disabilities intrinsically lower wellbeing; see also Campbell and Stramondo (2017, 157).

ilar people living in similar environments. Given all of these variables, it is impossible to make any true generalization about the tendency of disabilities to generate intrinsic goods and bads.

These are worthwhile methodological challenges to approach that I take—that the important issue is the average effect of disability on wellbeing.<sup>8</sup>

I agree with some of what Campbell and Stramondo argue here, but just to a point: the goal of large-scale social scientific studies is to generate a sample size large enough that despite differences among individuals, we can study general trends. There are two reasons why I take the average effect of disability on wellbeing to be of central concern. First, some important questions in bioethics (which I briefly discuss in §5.1) hinge on questions of averages.

Second, and more importantly, average effect can be used as our best proxy for determining relevant causal relationships. There is a large literature on how causal inferences can be made from statistical distributions (see e.g., Pearl and Mackenzie 2018 for an introductory and opinionated treatment), and I cannot summarize it all here. But I will note that Campbell and Stramondo's argument evinces a profound skepticism about the ability of science to conduct large-scale observational studies in order to make causal inferences. Here is an argument analogous to that given by Campbell and Stramondo: It is entirely possible that two individuals who live in the same place and who smoke the exact same (non-zero) amount of cigarettes in a day end up such that one gets lung cancer, and the other does not. This is perhaps because of genetics, or because one eats a healthier diet than the other, or because of a large multitude of other possible factors that influence cancer formation.

Is it the case then that we can make no true generalizations about the effects of smoking on cancer? Indeed we can, and we could do so even prior to determining mechanisms by which smoking causes cancer. That is because in large-scale retrospective statistical studies in which efforts were made to control for alternative causal factors—the most notable early ones being Doll and Hill (1950, 1954) and Hammond and Horn (1954)—found that smokers get cancer more often and have higher mortality rates than non-smokers. Analogously, large-scale studies of average effects can give us insight into causal mechanisms linking disability with wellbeing, despite the

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<sup>8</sup> Campbell and Stramondo (2017, 168) argue that some severe disabilities like infantile Tay-Sachs Disease pull down the average level of wellbeing for those with disabilities. There is indeed some truth to this that is relevant to the findings in this paper. I should note that (a) most of those with infantile Tay-Sachs Disease in particular are probably not included in the general studies I mention above, because most people with infantile Tay-Sachs are too young to be included; (b) it seems that most people with disabilities have disabilities less severe than infantile Tay-Sachs Disease, though to my knowledge there is little literature on percentages of those with disabilities at various levels; (c) Lucas (2007) stratifies his analysis by degree of disability, and still finds a small lowering of wellbeing among those with minor disabilities; and (d) disability-specific studies for many other disabilities show a negative impact.

complexity of the relationship, and despite the fact that two similarly situated individuals may have differential outcomes. Thus, it is well worth examining what the science of disability psychology tells us about the question of the average effect of disability on wellbeing, which is what I will attempt to do in §4. Prior to examining the empirical evidence, I discuss some methodological issues in §3.

### 3. A Brief History and Philosophy of the Scientific Study of the Effects of Disability on Wellbeing (SSEDWB)

#### 3.1. Historical and Methodological Issues

Many<sup>9</sup> believe that those who win the lottery and those who become disabled with a spinal cord injury, on average, all return within two years to their previous levels of subjective wellbeing. The common impression is that the landmark study that showed this (Brickman et al., 1978), and replicated time and again since then, demonstrates that people have a baseline level of subjective wellbeing, and over a not-too-long a time, adapt to changes in their lives—even very significant ones. Acquired disability, it seems, does not have a long-term negative impact on individuals' wellbeing.

Except: none of this is true. And Brickman et al. (1978) explicitly do not give evidence for anything like it. And it is also not true that in general, people's level of subjective wellbeing generally remains the same across time (see Luhmann et al. 2012; Yap et al. 2014; Anusic et al. 2014). What Brickman et al. (1978) in fact found was that a sample of 29 people with spinal cord injury had their self-reported level of general happiness drop from 4.41 (out of 5, with 2.5 as the explicit midpoint) prior to the accident (a retrospective judgment) to 2.96 approximately one year after the injury—a vast decrease. Thus Brickman et al. (1978, 921) found that accident victims in fact had a dramatic *lowering* of their self-reported level of general happiness. Still, it (a) did not drop as low as they had suspected it would and it (b) did not drop below the midpoint level of reported happiness.

Since the publication of Brickman et al. (1978), many studies have attempted to determine life-satisfaction among disabled people. Here, I will note a number of highly complex aspects of this literature. Most noteworthy, there is no meta-analysis or systematic review of the *general* relationship between disability and life-satisfaction, although there are meta-analyses of the effects on *specific* disabilities on life-satisfaction (see §4.3). And aside perhaps from the Brickman et al. (1978) study, there is no *locus classicus* on the subject. So it is *extremely* difficult to get a good

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<sup>9</sup> As described in popular presentations by leading psychologist Daniel Gilbert (<https://blog.ted.com/ten-years-later-dan-gilbert-on-life-after-the-surprising-science-of-happiness/>) and by philosopher Lee McIntyre (<https://getpocket.com/explore/item/3-philosophers-set-up-a-booth-on-a-street-corner-here-s-what-people-asked>).

grasp of what the overall research says about MDV. There are a number of further reasons for this:

(1) The literature on the relationships between disability (and individual disabilities) and quality of life is now so large that it would be an overly onerous task to systematically review it all in a single work. A PubMed title/abstract search for “disability” and “quality of life” shows 36,265 results.<sup>10</sup> Many of these focus on the effects of specific interventions on a single feature of life-satisfaction/quality of life for a single disability. Such studies only give limited insight into the general relationship between disability and life-satisfaction.

(2) SSEDWB studies have been performed by researchers in many different disciplines and sub-disciplines: economics (behavioral [Lucas 2007, Oswald and Powdthavee 2008, Powdthavee 2009]; labor [Jones et al. 2018]; and welfare [Kimberlin and Ager 2009]); “rehabilitation” psychology (January et al. 2015; Amtmann et al. 2015; Mehnert et al. 1990); public health (WHO 2011; Emerson et al. 2012); and within specific medical journals dedicated to the particular disabilities studied (see studies cited in §4.3). The literature review sections of these works rarely cite works by researchers in other disciplines.

(3) Most of the research in SSEDWB is not intended to shed light on the question of whether MDV is true. Rather, research in SSEDWB has varying other purposes: to determine impacts of disabilities on the labor market; to determine government pensions for disabled people; and, largely, to determine what medical or public health interventions should be taken to improve life-satisfaction for disabled persons.

(4) There are many different measures in the vicinity of the concept of *wellbeing* that are studied: Wellbeing (WB); Subjective well-being (SWB); Quality of Life (QOL); Health-Related Quality of Life (HRQOL); levels of depression or happiness; and Life-Satisfaction (LS, using various measurement tools, such as the LSIA and LSIA-A measures). For this reason, it is difficult to compare measurements across studies. Furthermore, even within a measure, like SWB, there is no single *form* of measurement. Some studies use scales of 1 to 7, others use 1 to 10. The topic of well-being and its relation to these associated qualities is a well-trodden one within philosophy (see Alexandrova 2017; Fletcher 2016; Bickenbach et al. 2013), and I must reserve detailed discussion of the merits and demerits of the use of each particular measure for another occasion, though certainly *much* more can be said. (See esp. Alexandrova 2017, Ch. 1, for a pluralism about these measures; also see Wasserman and Asch 2013; Bickenbach 2013; and Campbell and Stramondo 2017.) That is partly because, in spite of the variety of measurements in the empirical SSEDWB literature, there is a high degree of convergence in the findings, regardless of the precise parameter used for measurement. In what follows, I will use “WB\*” as a catch-all term

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<sup>10</sup> The search with this result was done on January 4, 2023.



when making general statements about life-satisfaction, quality of life, wellbeing, etc., keeping in mind that these are nevertheless distinct concepts. I will state the appropriate measure (including wellbeing itself) when discussing particular studies.

(5) Very few SSEDWB articles study disability *in general*; most study impacts of *particular* disabilities. Furthermore, there is a large variation between disabilities of effect of disabilities on individuals. One effect of this is that secondary sources can thus easily cherry-pick particular studies—if one wishes to argue in favor of MDV, for instance, one can likely find a study that shows that for *some* disability, individuals with that disability do not have a lowered WB\*.

(6) There is no single definition of *disability* used by studies. Some primarily focus on physical disabilities, others include physical and mental disabilities, and others include chronic health conditions. Some include only those who have been officially certified as disabled, while others only use self-reports. As I discuss in §4, this can have a large effect on the results of studies.

(7) There are no randomized clinical trials regarding disability's effect on WB\*: no one takes an intervention group, makes them disabled, and measures their WB\* scores against some control group. Instead, all SSEDWB studies are merely observational, with all the attendant complications that go along with observational studies in social sciences: difficulties in determining causation as opposed to mere correlation, and in excluding confounders; difficulty in determining mediating factors; difficulty in determining accuracy of retrospective self-reporting; difficulty in removing sampling bias. Furthermore, some SSEDWB studies are longitudinal and others are cross-sectional. Some report both kinds of data. Those general studies that report just cross-sectional results unanimously find that those with disabilities have lower WB\* than those without disabilities, whereas there is more variability in the longitudinal studies. This is in part because the adjustment-to-disability period is typically lengthy (or is perhaps never completed), so sampling a random set of disabled people will presumably include some at the beginning of their disability period, which will bring down the average level of WB\*. However, what seems to be of interest to some philosophers and psychologists is WB\* *after* a period of adjustment.

(8) Although there are many studies about WB\* for specific congenital disabilities—disabilities that begin at birth—there are no studies about WB\* for those with congenital disabilities *combined together*. While only a small portion of total disabilities, congenital disabilities are worth studying independently, especially because some bioethics questions regarding prenatal decision-making pertain primarily to them. All *large-scale* studies either do not distinguish between acquired and congenital disability, or just study acquired disability. This is important because *smaller* studies on *individual* disabilities (e.g., Hergenröder and Blank 2009) tend to

show that adults with congenital disabilities have much higher WB\* than those with acquired disabilities.

Due to the massive size and heterogeneity of SSEDWB data, it would not be fruitful to attempt a standard systematic review of the literature. However, within data synthesis practice in science, there are a number of different kinds of research reviews, including systematic reviews (with or without meta-analyses), scoping reviews, qualitative reviews, and narrative literature reviews.<sup>11</sup> The review I conducted and report on in §4 most closely resembles a *narrative* literature review. A narrative review has the benefit of not abstracting away from the specificities of particular studies. At the same time, a systematic review has the benefit of being more objective and replicable in its selection criteria. For this reason, I developed selection criteria prior to conducting the review, as in a systematic review, but at the same time have engaged with the particulars of the selected studies in a narrative format which is necessitated by the reasons I have outlined in this section.

### 3.2. On Discerning Ableist, Intrinsic, and Other Factors

One of the central issues here is the degree to which ableist factors affect WB\* among disabled people in relation to the effects of intrinsic and other factors. I'd like to make two notes regarding this issue:

(1) No extant large-scale study across disabilities fully succeeds in clarifying these factors, although some (to be discussed momentarily) do provide *some* evidence. However, there exist smaller studies which show, for example, that multiple sclerosis affects individuals' sleep (Amtmann et al. 2015), which thereby affects WB\*. Furthermore one might judge that poor sleep is a factor that is mostly intrinsic to the disability. And one can then infer that, for MS at least, something intrinsic to the disability is responsible for lower WB\*. But because this kind of factoring is present primarily in smaller disability-specific studies (i.e., studies that involve a single disability's effect on WB\*), the degree to which disabled people's decreased WB\* (on the whole) is due to ableist factors must be determined indirectly. Still, these disability-specific studies do provide decent evidence that it is not entirely due to ableist factors (and the mere presence of one disability for which wellbeing is lowered tells against MDV).

(2) Some studies (e.g., Lucas 2007; Emerson et al. 2012; van Campen and van Santvoort 2013) do describe mediating factors for the negative impact of disability on WB\*. But there are three main limitations of these studies. (2a) None of them makes a *systematic* effort to discern ableist vs. non-ableist factors. Rather, they all attempt to discern the ways in which a small number of individual social factors like unemployment causally mediate the effects of disability on WB\*. Furthermore, (2b)

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<sup>11</sup> See Ferrari (2015) for a summary of different types of reviews and the pros/cons of each.

not every social factor is an ableist factor. For instance, in my own experience with chronic migraines, I have been at times unable to attend social events or perform other social functions due to migraine. But I would not describe this social fact as *ableist*—it would be impossible for society to be structured so as to accommodate some of my inability to function. A similar point can be raised in regard to employment: while, in abidance with the Americans with Disabilities Act, groups must make *reasonable* accommodations for disabled people, and a failure to do so is ableist, a failure to provide *every possible* accommodation is not ableist. (2c) The point in (2b) has a statistical counterpart: For some disabilities, being disabled is intrinsically a cause of the mediating factor. For instance, it may be harder for those with some disabilities to be employed, over and above ableist factors. This means that even studies such as Emerson et al. (2012) do not show that something *intrinsic* (in the thick sense discussed above) to the disability is not a main causal factor in lower WB\*, even if the negative effects of the disability are *statistically* mediated by something else.

#### 4. A Review of SSEDWB

##### 4.1. Studies Cited by Barnes

Before turning to the results of my review of SSEDWB, I'd like to discuss the two main papers cited by Barnes (Ch. 2, fn. 16; Ch. 3, fn. 12). I should note that Barnes focuses on *physical* disabilities, with the specific exclusion of mental (cognitive or psychological) disabilities.<sup>12</sup> However, there are good reasons *not* to distinguish between physical and cognitive disabilities (see Kittay 2020). So I focus on the effect of disabilities in general on WB\*, without attempting to distinguish between physical and mental disability as general categories.

##### 4.1.1. Frederick and Loewenstein (1999)

I will begin with Frederick and Loewenstein (1999, hereafter F&L). I should first note that F&L's discussion of disability only forms a half page of discussion as part of a larger paper on hedonic adaptation, and only explicitly provides limited evidence in favor of MDV. F&L begin by mentioning Brickman et al. (1978), but relegate to an endnote (322, en. 25) the fact that Brickman et al. actually provide poor evidence for adaptation. Lucas (2007, 718–719) demonstrates that most studies cited by F&L don't provide evidence that disabled individuals' wellbeing returns to baseline or is comparable to population norms. Rather, the conclusions support just the claim that disabled people “tended to be reasonably well-adjusted, not that they were just as happy as population norms” (Lucas 719).

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<sup>12</sup> See Gould (2022) for a rejection of MDV specifically for intellectual disabilities.

F&L's best source is not a general study of disabled people but a study of individuals with spinal cord injury (SCI) (Schulz and Decker 1985). Here is their main result:

*Mean Scores on the LSIA and the LSIA-A of Selected Samples*

Study	Age of Subjects <sup>a</sup>	Mean Score	Median Score	Mode
LSIA: Adams (1969) <sup>b</sup>	65+	12.5	—	—
LSIA-A: Harris & Associates (1975) <sup>c</sup>				
Younger Sample	18–64	13.35	14.15	—
Older Sample	65+	12.2	13.0	—
Total Sample	—	13.2	14.0	—
LSAI-A: Spinal cord injury study	40+	10.76	10.88	9.0

*Note.* LSIA = Life Satisfaction Index; LSIA-A is derived from the LSIA.

<sup>a</sup> In years. <sup>b</sup> Scores can range from 0 to 20. <sup>c</sup> Scores can range from 0 to 18. High scores indicate high levels of life satisfaction.

**Figure 1. Schulz and Decker's (1985) results comparing life-satisfaction in disabled and non-disabled individuals.**

The mean and median LS reported here are considerably lower for those with an SCI than for non-disabled people. Furthermore, F&L fail to cite a later and much more comprehensive meta-analysis of SCI studies (Dijkers 1997; also see Fuhrer et al. 1992). Dijkers concludes (837): “the consistency of the result is quite convincing: the average person with a spinal injury experiences a lower quality of life than the average person without such injury.” Additionally, F&L are explicit in noting that for those with progressive disabilities, such as MS, full adaptation does *not* occur (F&L 1999, 312). However, I should note that studies cited by F&L say nothing about how much of the lowering of WB\* is due to ableism, and how much is due to features intrinsic to the disability. Nevertheless, in sum, the studies used by F&L provide (a) virtually no evidence in favor of MDV; (b) some evidence *against* MDV, especially for progressive disabilities—though as just noted, that it is evidence against MDV should be tempered by considerations that at least some of the loss of WB\* is due to ableism.

4.1.2. *Bagenstos and Schlanger (2007)*

The other paper cited by Barnes in favor of MDV is Bagenstos and Schlanger (2007), hereafter B&S). I should note first that B&S are not scientists conducting a careful systematic review of SSEDWB literature, but rather legal scholars arguing for a substantive legal/moral thesis: accident victims who become disabled due to the accident should not receive hedonic compensatory damages in civil tort cases to account for lost happiness because disabled people are not in fact less happy than others. As noted above, B&S write: “a massive body of research has demonstrated that people who acquire a range of disabilities typically do not experience much or any permanent reduction in the enjoyment of life” (763, quoted by Barnes Ch. 2 n. 21 and by Setiya 2022, p. 19). B&S cite three papers in the footnote to that statement. One (Gill 2000) is a polemical piece arguing against assisted-suicide laws. Gill’s main goals are not to provide any sort of comprehensive literature review but to show—correctly—that most disabled people live *good* lives. Gill, however, gives very little evidence of anything supporting the bold *comparative* claim of MDV. Second, Eisenberg and Saltz (1991) is a study of SCI in particular and not disability in general, and Eisenberg and Saltz (1991) give very little general evidence of complete adaptation, even in the case of SCI. And we have good reason to believe that there is not complete adaptation to SCI (see Dijkers 1997, noted above in §4.1.1). The third paper cited by B&S is Mehnert et al. (1990), which is indeed a well-done study of LS among disabled people in *general*. Here is Mehnert et al.’s main finding:

Life Satisfaction Ratings for Nondisabled–Disabled Persons

Response	Nondisabled (n = 1064) (%)		Disabled (n = 675) (%)	
Very satisfied	50	}	37	}
Somewhat satisfied	40		31	
Neither satisfied nor dissatisfied	3	}	3	}
Somewhat dissatisfied	5		18	
Very dissatisfied	1	}	9	}
Not sure/refused	1		2	
		90		68
		6		27

Based on data from the *Prevention in America 2* (1985) survey of adults aged 18 and over who said they did not have a limiting condition or health problem.

**Figure 2. Mehnert et al.’s (1990) results of life-satisfaction surveys for disabled and non-disabled individuals.**

These results show, in a very large sample, that disabled people are more than four times more likely to report that they are dissatisfied with their lives than non-disabled people. Mehnert et al. (1990) thus do not provide evidence in favor of MDV,

and some evidence against it.<sup>13</sup> However, as with the studies cited above by F&L, Mehnert et al. also do not discern the degree to which ableism is a mediating factor in decreased life satisfaction.

In their paper, B&S cite select studies that show, for a few individual disability-types, that individuals show some degree of adaptation, and either ignore, or relegate to footnotes, studies that give evidence to the contrary. Mostly, though, B&S cite considerable evidence that simply shows that disabled people on average live decent or good lives. This is appropriate, but it does not support MDV. And it clearly does *not* support B&S's own conclusion that disabled people are not owed compensatory damages for hedonic losses, which must be based in a *comparative* judgment. (And further, B&S's argument depends on something even *stronger* than MDV—the idea that disabled people are not hedonically harmed by being disabled even *given* society's ableism.) In sum, the two papers cited by Barnes in support of MDV are *not* excellent reviews of the relationship between disability and WB\*, and also do not provide support for MDV. In fact, there are *no* excellent reviews of that relationship. That fact motivated me to look more carefully myself.

#### 4.2. A Literature Review of SSEDWB

To conduct a review of SSEDWB, I performed google scholar (scholar.google.com) and PubMed (https://pubmed.ncbi.nlm.nih.gov/) searches for “disability life satisfaction”, “disability well-being”, and “disability quality of life” (all without quotes within the search, to allow for varying word order).<sup>14</sup> I examined the title and abstract (if applicable) of the first 1000 “best match” results in each. I also reviewed the table of contents of every issue of the journal *Rehabilitation Psychology* for the period 2000-present (2023).<sup>15</sup> I discuss in this section all studies I found that compare QOL, life-satisfaction, or well-being between disabled and non-disabled people since 2000. I also reviewed papers cited in literature review sections of all the papers that met my other criteria. I *excluded* papers whose titles referenced specific disability types, though I discuss a sampling of those papers from a separate search in §4.3. I included

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<sup>13</sup> Note here that this includes physical disabilities (45%), serious health (29%), sensory disabilities (13%), and mental health disabilities (9%) and unsure/refused (4%). It also found (pertaining to discussion in Barnes (2016, 100, 102) that LS *decreases* the more severe the disability is, as those with slight (86%), moderate (80%), somewhat severe (61%), and very severe (49%) disabilities reporting being very or somewhat satisfied.

<sup>14</sup> All the literature searches and review of results described in §4 took place in January–February, 2023. I was assisted in this research by Laura Neish.

<sup>15</sup> *Rehabilitation Psychology* is a longstanding leading journal under the aegis of a Division of the American Psychological Association, and is dedicated to the empirical questions at issue here. I should add that the title “Rehabilitation Psychology” is problematic in that it seems to suggest that disabled people's psychological issues involve a form of rehabilitation, rather than mere human response to circumstance. However, the particular articles in the journal that I have reviewed don't seem to me to operate under that prejudicial assumption.

papers whose primary aim was to determine the effect of a particular potential confounder on WB\* only if the study also included comparative data between disabled and non-disabled people—typically, they did not). I restricted my initial research to Western countries (US, Canada, Europe, Australia, and New Zealand), but also did secondary research on non-Western countries (§4.2.10). Ten papers met these criteria, which I shall discuss below. This method allowed me to find papers across disciplines, though it turns out that *general* SSEDWB studies that met these criteria were mostly conducted by economists, whereas more specific studies (that I will discuss in §4.3) were conducted by either psychologists or experts on specific disabilities.

For each study, I report whether it supports NADV or MDV (or neither), and specifically, (a) whether disabled people experience a comparable level of WB\* as non-disabled people; (b) whether the study reports *absolute* figures regarding disabled people's WB\*; (c) whether any causally mediating factors were reported; (d) other notes.

#### 4.2.1. Pre-2000 Studies

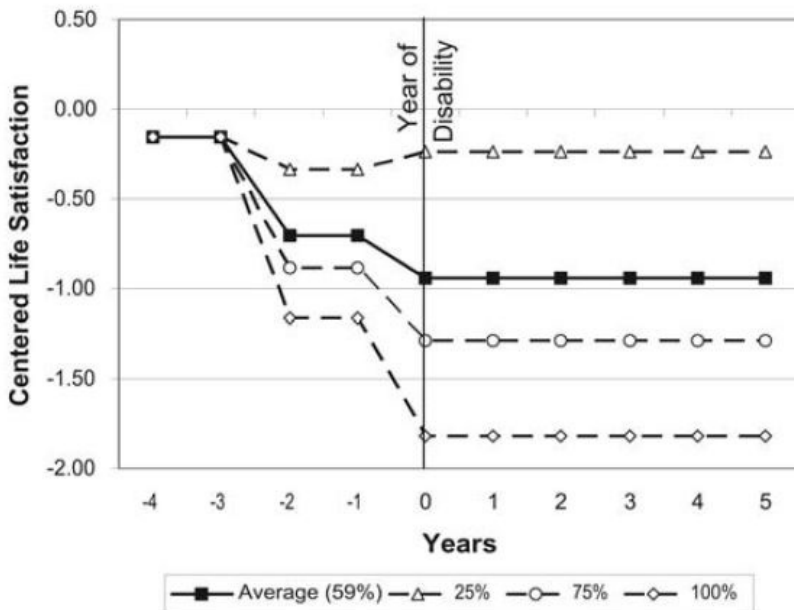
My focus in this review is the time since 2000. I will note that I did find three studies that met the criteria prior to 2000: First, Mehnert et al., (1990), noted above in §4.1, showed a vast difference between levels of LS in disabled and non-disabled people. Still, that Mehnert et al. found that over two-thirds of those with disabilities reported being either satisfied or very satisfied with their lives. Second, Kinney and Coyle (1992) found that “Individuals with an acquired disability had a statistically significant ( $t[1,766] = 3.58, p < .001$ ) lower mean score on life-satisfaction ( $X = 4.97$ ) than did individuals with congenital disabilities ( $X = 5.30$ )” (866). Third, Nousek et al. (1995), in a small study of 65 subjects, report “The mean LSIA [Life-Satisfaction Index A] score of 9.2 for this sample of individuals with various chronic physical impairments is notably lower than the mean of 13.2 obtained for persons in the general population” (197).

#### 4.2.2. Uppal (2006)

A survey of happiness among disabled people, relative to other independent data regarding non-disabled people. Uppal found that “happiness or well-being is negatively related to the severity of disability but is independent of the type of physical disability” (536). Although income status was found not to be negatively correlated with happiness, unemployment does lead to less happiness. Further, providing disabled people with more assistive devices would increase their wellbeing. However, Uppal is not conclusive about whether this accounts for all the happiness/wellbeing loss for disabled people. So this result is mixed relative to MDV/NADV.

### 4.2.3. Lucas (2007)

This study was the largest and most comprehensive at the time, and is still often cited. Lucas himself is a behavioral economist interested in hedonic adaptation, and this was the first longitudinal SSEDWB study. Lucas took two large social data panels: the German Socio-Economic Panel Study (GSOEP) and the British Household Panel Study (BHPS). Their results were similar; I will focus on the GSOEP results. Individuals self-reported whether they had been certified as having a disability, and to what extent. Individuals were also asked to rate their LS on a scale of 0 to 10. Lucas found that while those experiencing a mild (25%) disability only experienced a very small decrease in LS, those with moderate to severe disabilities experienced a very significant decrease in LS. Notably, this decrease remained constant throughout the duration of the study (five years).



Predicted changes in centered life satisfaction before and after onset of disability in the German Socio-Economic Panel Study sample. Different lines reflect varying amounts of disability.

**Figure 3. Lucas (2007) results of longitudinal study of adaptation of life-satisfaction to disability.**

Furthermore, Lucas controlled for employment and income, and although small effects of the drop could be explained by those, even after controlling for those, “disabled participants reported satisfaction scores that were still 0.50 standard deviations below their initial baseline level,” and “even after these potential explanatory vari-



ables were controlled, there was no evidence of adaptation over time” (721). This result gives fairly strong evidence in favor of NADV. Lucas does not state absolute figures for the reports, so it is not apparent from the paper the absolute level of LS in the groups (though see §4.2.4. below).

4.2.4. Oswald and Powdthavee (2008) and Powdthavee (2009)

These studies, like Lucas (2007), take both the GSOEP and the BHPS. However, these studies find slightly more evidence of adaptation than Lucas (2007). They also control for the effects of other factors more methodically. Still, it shows that those with severe disabilities show a statistically significant, and enduring, decrease in LS relative to those who are not disabled. This also provides strong evidence in favor of NADV, though not as strong as in Lucas (2007).

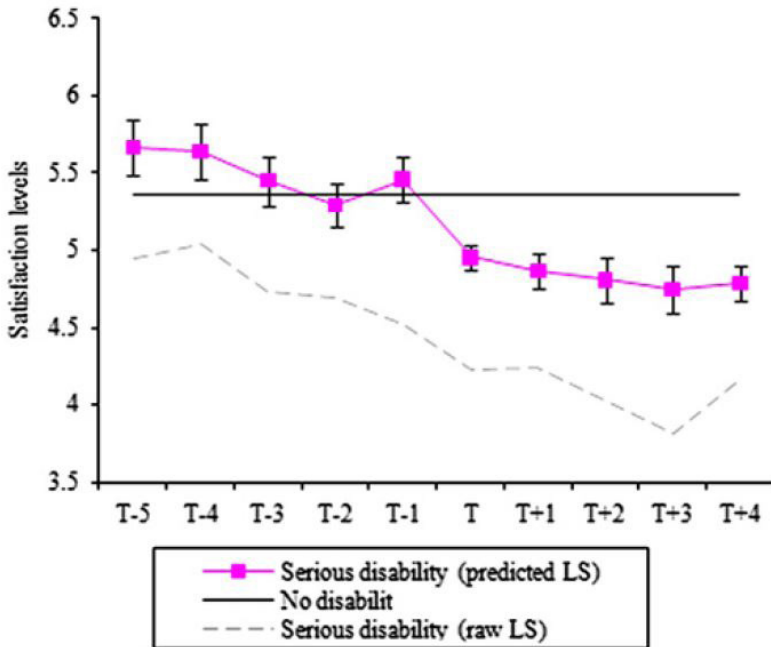
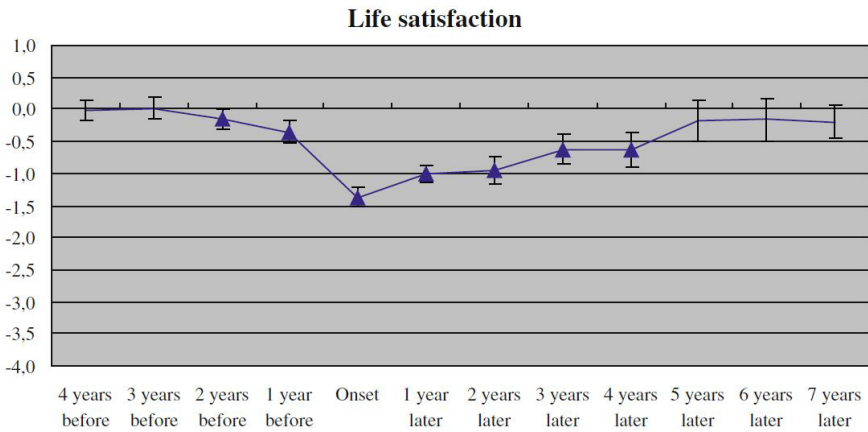


Figure 4. Result of Powdthavee 2009.

For those with 4 or more years of serious disability, their overall LS on a scale of 1–7 is 4.16. (Powdthavee 2009, 1836)—above the midpoint. Thus, again, even those who are severely disabled live lives that are, on average, satisfactory.

4.2.5. Pagán-Rodríguez (2010) and (2012)

The one researcher to find no statistically significant long-term difference between baseline WB\* and post-disability WB\* is Ricardo Pagán-Rodríguez, in two studies. Here are his results from (2012):



**Figure 5. Result of Pagán-Rodríguez (2012).**

After 5 years post-onset of disability (also using the same GSOEP data as Lucas (2007) and Powdthavee (2009)), although the mean LS scores of disabled males age 21–58 were lower than non-disabled, individuals do not show a statistically significant difference (at the level of 5%) from how they were three years prior to the onset of their disability. This result favors MDV.

How can we reconcile Pagán-Rodríguez’s results with other findings discussed in this section? First, Pagán-Rodríguez does not require *continued* disability (beyond one year after first report of disability) in order to be included within his sample in later years. What this means is that some of those reports of LS after the onset of disability may be from individuals who have *ceased* to be disabled. Second, Pagán-Rodríguez uses a very *expansive* definition of disability, to include those who simply report poor health for two consecutive years. (This accounts for 63% of “disabled” people in Pagán-Rodríguez’s 2012 sample.) I have two concerns with this methodology. First, disability rights activists themselves would likely question the inclusion of mere poor health within the notion of disability. Second, even if poor health has independent validity as a *proxy* for disability within a given year (as argued by Pagán-Rodríguez 2012, 369–370), it might be the case that those with poor health, but not a certified disability, are more likely to recover from poor health, and so Pagán-Rodríguez’s results still might include a large number of people who are not disabled after a number of years; they simply had a bad illness for a period. Given that the results are in conflict with virtually all the other studies noted here—ones that did not have such an inclusive notion of disability—I am inclined to discount Pagán-Rodríguez’s findings relative to the others. As far as absolute scores go, in Pagán-Rodríguez’s study, disabled individuals report a LS score of 5.50 on a scale of 1 to 10 (382), giving some

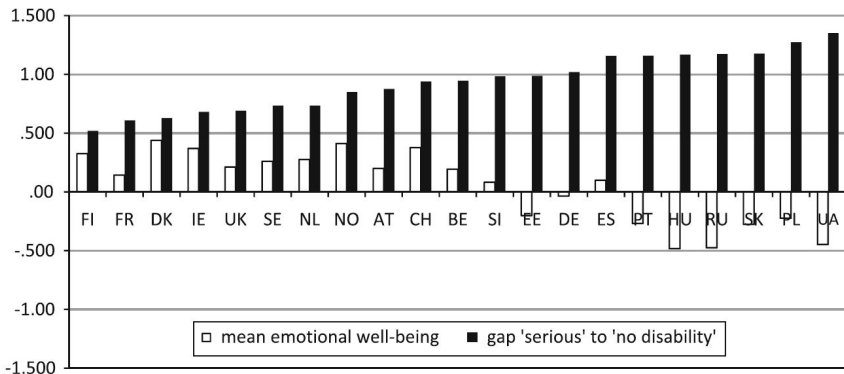
more evidence (albeit limited, given the concerns I raise here) that those with disabilities live, on average, decent lives.

**4.2.6. Emerson et al. (2012)**

This study and Emerson et al. (2020) both provide some evidence that the negative impacts of disability are *largely* (though entirely) due to social factors. Subjective well-being among young Australian (ages 15–29) was found to be significantly lower among those who are disabled (self-reported). However, Emerson et al (2012) found that “Controlling for between-group differences in background demographics, adversity, economic and social resources reduced the between-group differences by 74% for low psychological health and 54% for normalised [general mental health] score” (180). This is a significant result, and is more amenable to MDV than others, though it is consistent with the claim of NADV that to *some* extent, WB\* deficits in disabled people are due to intrinsic factors.<sup>16</sup>

**4.2.7. van Campen and van Santvoort 2013**

In the largest SSEDWB study to my knowledge, which takes data from 21 countries across Europe, van Campen and van Santvoort found statistically significant gaps in both emotional well-being and LS between disabled and non-disabled people in every country, though the effect sizes varied by country. Their study was cross-sectional, and used a stepwise regression model to determine possible causal mediators. Here is van Campen and van Santvoort’s finding regarding emotional well-being (their finding on LS was similar):



**Fig. 1** National means and gaps in emotional well-being between persons with serious and no disabilities. Total group: mean = 0, SD = 1. AT Austria, BE Belgium, CH Switzerland, DE Germany, DK Denmark, EE Estonia, ES Spain, FI Finland, FR France, UK United Kingdom, HU Hungary, IE Ireland, NL Netherlands, NO Norway, PL Poland, PT Portugal, RU Russian Fed., SE Sweden, SI Slovenia, SK Slovakia, UA Ukraine

**Figure 6. Result of van Campen and van Santvoort (2013)**

<sup>16</sup> Though see my §3.2 above for a note regarding causal inferences regarding statistical mediation.

This shows a highly significant effect of disability on EWB. In the country in which disabled people fared the best—Finland—levels of EWB were reported approximately .5 SDs below the average. Furthermore, van Campen and van Santvoort’s regression model indicates that the biggest causal mediator between disability and low EWB is *vitality*, which rated much higher than other social (and potentially ableist-related factors) such as work and social contacts). This gives reason to believe that at least a significant part of the loss of EWB is due to factors *intrinsic* to the disability, as in NADV.

One significant caution with van Campen and van Santvoort (2013) is that they too use an inclusive notion of disability, which also includes individuals who report being “hampered in daily activities by illness”. Thus it is perhaps not surprising that many of those whom they count as disabled also report very low vitality scores. Another issue is that because van Campen and Van Santvoort (2013) use cross-sectional data, and all agree that the negative effects of acquired disability are more pronounced in the first years after the onset of disability, it is unclear what their results would indicate regarding the effects of disability after a period of adjustment. I should also note that the wide variation between countries itself gives strong evidence that social factors do indeed make a large difference in LS/EWB for disabled people, especially given that wealthier European countries with more progressive social support systems have less of a gap than less wealthy countries.

#### 4.2.8. Jones et al. (2018)

Using longitudinal data from the Household, Income, and Labour Dynamics in Australia (HILDA) Survey, Jones et al. report a dramatic drop in LS at the onset of disability, and this decline does not reverse over the duration of the study.

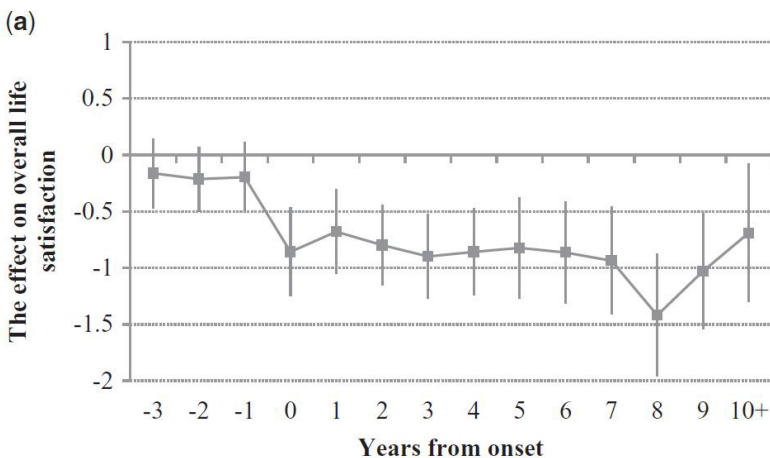


Figure 7. Result of Jones et al. (2018)

I should also note that by year 9, people report equal satisfaction with income, suggesting that the negative effects of disability are not mediated by dissatisfaction with income (corroborating Uppal 2006). Thus, Jones et al. (2018) gives some evidence in support of NADV. Jones et al. do not report absolute levels of LS.

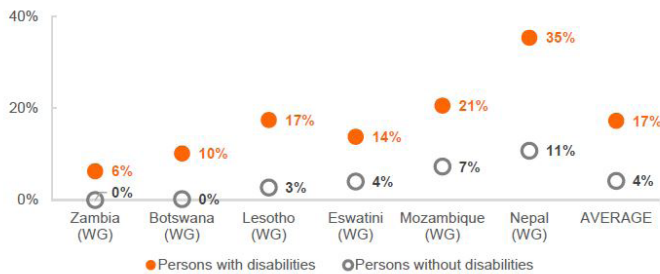
**4.2.9. Emerson et al. (2020)**

As with Emerson et al. (2012), this study found that in the UK, disability is associated with significantly lowered personal wellbeing, but found that 73% of the difference can be explained by differences in social factors. This, like Emerson 2012, while being closer to MDV than other studies noted above, still does provide some support for NADV, in part because not every social factor is ableist, and in part because of the remaining 27% not attributable to social factors. Absolute measures of WB\* were not discussed.

**4.2.10. Non-Western studies**

There has not been, to my knowledge, any systematic effort to determine the effect of disability on WB\* in non-Western countries. The 2018 UN Disability and Development Report states “Assessing well-being remains elusive, and even more so for persons with disabilities for which data are scarcer” (47). The World Health Organization published the following data which shows the relationship between disability and mental health in six poor countries. However, poor mental health is not the same as poor WB\*, so the utility of this information is not clear. Nevertheless, the positive correlation between disability and mental health is clear:

Figure II.12. Percentage of persons who self-assess their mental health as poor, by disability status, in 6 countries, around 2012.



Note: (WG) identifies countries with data collected using the Washington Group Short Set of Questions.

Source: UNDESA<sup>78</sup> (on the basis of data from SINTEF<sup>11</sup>).

**Figure 8. 2018 UN D&DR for six poor countries on relationship between mental health and disability.**

Emerson and Llewellyn (2022) report findings from 27 lower and middle-income countries. It found lowered personal wellbeing in them at comparable rates

to higher-income countries. It also found that a significant portion of the lowered personal wellbeing is due to societal factors, but could not quantify that proportion. I did find several smaller studies in non-Western countries; this is by no means a systematic review, but the ones I examined all show that in various locales in Asia—Taiwan (Lin and Cheng 2019); India (Kuvalekar et al. 2015, Awasthi et al. 2016); Korea (Kim 2020); Antalya, Turkey (Donmez et al. 2005); Bangladesh (Hosain et al. 2002); Rural Thailand (Hongthong et al. 2015)—WB\* is compromised among people with disabilities. However, no effort is made in these studies to report mediating factors such as from ableism or lack of accommodation.

### 4.3. Specific Disabilities

To further review SSEDWB, I searched PubMed for studies for the following thirteen (pre-selected) specific disabilities.<sup>17</sup> I searched for “[disability-type] life satisfaction” and “[disability-type] quality of life” and examined the first meta-analysis or systematic review studies whose titles indicated that they examined general comparisons between WB\* with those with the disability and those without. For those disabilities without any sufficient meta-analyses or systematic reviews, I found the largest representative single study. For those with a meta-analysis restricted to one age-group (such as CP and hearing loss), I also found the largest study for all ages. Furthermore, in cases where a large single study indicates mediating factors, I included it below (since it is difficult for a meta-analysis to study mediating factors). I include in the chart below all studies I examined. I don’t present this as a comprehensive review of individual disabilities, but rather as some corroborating evidence for the studies discussed in §4.2 as well as being of independent interest.

**Table 1. A list of studies involving the impact of individual disabilities on WB\*.**

Disability Type	Authors (Year)	Results/Summarizing Quote/ Notes	Supports MDV? (Yes, No, Unclear)
Cerebral Palsy	Hergenröder and Blank (2009)	“In conclusion, subjective well-being and general satisfaction with life are not decreased in adults with CP.” (Primary study.)	Yes

<sup>17</sup> (((((Wellbeing[Title/Abstract]) OR (Well-being[Title/Abstract])) OR (Life Satisfaction[Title/Abstract])) OR (“Quality of Life”[Title/Abstract])) AND ([[disability-name]][Title/Abstract])) and selected for meta-analyses and reviews.

Cerebral Palsy	Makris et al. (2021)	Meta-analysis of youths: “The pooled effect estimate was large and negative . . . indicating reduced QoL among children and adolescents with CP compared to peers.”	No
Cognitive Impairment	St. John and Montgomery (2010)	“[Impaired] cognition is associated with [lower] life-satisfaction [in older adults], but the effect is fairly small. Most older adults are satisfied with life.” (Primary study.)	<i>Unclear</i>
Cognitive Impairment	Gates et al. (2014)	Mild cognitive impairment (potentially early-stage dementia) is associated with significantly lowered psychological well-being after controlling for depression. (Primary study.)	No
Congenital heart disease	Kahr et al. (2015)	Meta-analysis shows reduced QOL in persons with moderate to complex CHD.	No
Hearing loss	Roland et al. (2016)	Systematic review found lower QOL for children with Hearing Loss (HL) than non-affected peers. QOL features associated with social interactions were affected the most.	<i>Unclear</i>
Hearing loss	Dalton et al. (2003)	Hearing loss is associated with reduced QOL in older adults. (Primary study.)	No
Huntington’s	Hocaoglu et al. (2012)	Those with Huntington’s Disease have considerably lower QOL than those without HD. (Primary study.)	No
Migraine	Blumenfeld et al. (2011)	Migraine severely lowers HRQOL, and chronic migraine is worse than episodic migraines. (Primary study.)	No

MS	Marrie et al. (2015)	Systematic review shows high levels of comorbidity of MS with psychiatric problems, especially depression and anxiety	No
Parkinson's	Zhao et al. (2021)	Systematic review and meta-analysis shows "PD patients had significantly poorer QOL than healthy controls overall and in most domains."	No
Parkinson's	Rosqvist et al. (2017)	Those with advanced PD (median age 70) exhibit substantially lower QOL than non-PD cohort. Relevant are personal factors such as walking, pain, and general self-efficacy.	No
Rheumatoid Arthritis (RA)	Matcham et al. (2014)	Meta-analysis reveals that RA has a significant negative impact on HRQOL, associated with reduction of physical function and pain.	No
Schizophrenia	Hoseinipalangi et al. (2022)	Systematic review and meta-analysis of global studies found overall good QOL of participants with schizophrenia.	Yes
SCI	Dijkers (1997)	Meta-analysis: "the consistency of the result is quite convincing: the average person with a spinal injury experiences a lower quality of life than the average person without such injury." (837)	No
SCI	January et al. (2015)	Adults with pediatric onset SCI exhibit lower LS and higher levels of depression than controls, and sleep is a significant mediator for depression and is a likely mediator for LS. (Primary study.)	No



Spina Bifida	Barf et al. (2007)	Young adults exhibit no difference in LS relative to non-disabled. (Primary study.)	Yes
Spina Bifida (MMC)	Cope et al. (2013)	Adults with SB exhibit no difference in LS relative to other adults. (Primary study.)	Yes
Traumatic Brain Injury	Resch et al. (2009)	Those with TBI have dramatically lower LS than those without. Among those with TBI, those with greater cognitive and motor impairments exhibit greater reduction in LS. (Primary study.)	No
Visual Impairment	Crews et al. (2016)	Blindness is significantly correlated with substantially lower subjective QOL for middle-aged adults. (Primary study.)	No

Although each disability affects individuals differently, the general pattern accords with NADV and with the data discussed in §4.2: those with disabilities report lower WB\* than those without, and those with more severe disabilities exhibit lower WB\* than those with less severe disabilities (contra Barnes 2016, 102). The *degree* to which the lowered WB\* is due to intrinsic features of disability rather than society failing to accommodate disability is unclear to me based upon examination of these studies. However, it is clear from several of the studies that at least *some* of the lowering of WB\* is due to pain, or due to effects of pain on sleep.

There is one main exception: congenital disabilities, which I will discuss in the next subsection.

#### 4.4. WB\* in Congenital Disability

One result in the empirical data is that according to some studies, adults with certain congenital disabilities, such as spina bifida (Cope et al. 2013) and cerebral palsy (Hergenröder and Blank (2009) report WB\* *equal* to that of those without disabilities. Although children with such disabilities often do have lower levels of WB\* due to pain and/or impaired sleep (Oddson et al. 2006 for SB; Radsel et al. 2017 and Varni et al. 2005, for CP), those who develop their identities around those two disabilities do not have their adult WB\* significantly diminished (also see Johnson 2003). On the other hand, those with congenital disabilities typically live shorter

lives than those without disabilities (median survival with SB is 28.5 in Oakeshott et al. 2010; it is lower than for non-disabled, but improving, for those with CP, according to Strauss et al. 2008; for CP in particular, longevity is highly correlated with severity of disability—see Blair et al. 2019), and this raises significant normative issues (e.g., comparing total vs. average lifelong QALYs) that are beyond the scope of this paper.<sup>18</sup>

One might argue that findings from congenital disabilities is *some* evidence in support of MDV: disability, on its own, does not negatively affect WB\*, because those who have had a disability from birth build their identity and preferences around it, and then live adult lives at close to (though not, on average, fully) the same WB\* level as non-disabled people. This does, in fact, show a kernel of truth within the spirit of MDV. However, as I argue in §2, this would require a very thin notion of what is “intrinsic” to disabilities, since it would require setting aside the *actual* preferences of all those people who have acquired disabilities. For SSEDWB, it is the more thick notion of *intrinsic* that is relevant, since (a) virtually all disabilities are not congenital,<sup>19</sup> and (b) everyone who acquires a disability already has some preferences, which, the data I have reviewed show, are not easily adjusted.

However, I should also note that insofar as our society is ableist as a whole and pathologizes disability (see the feminist Foucauldian view of Tremain 2017), ordinary preferences are likely structured in ways that emphasize values that those with disabilities may be unable to fulfill, thus leading to more psychological challenges for those who acquire disabilities. There is *more* than just a kernel of truth to this: if society were to adopt a more universalist model of disability (as in Zola 2005), it is likely that people in general would have an easier time psychologically adapting to acquired disability. I am doubtful that this kind of social change would account for *all* the negative impact of disability on WB\*, but having a less ableist society in the first place would most likely be significantly beneficial in regard to initial preference formation.<sup>20</sup> Additional discussion of this important issue must be reserved for further research.

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<sup>18</sup> Barnes briefly argues against consideration of longevity as relevant to overall QOL (2016, 73). I have significant sympathy with what Barnes says here, though I also believe that these normative issues deserve more attention.

<sup>19</sup> It is difficult to determine what percentage of disabilities are congenital. Leppert and Schaefer (2023) report that 13% of non-institutionalized Americans report having a disability, and less than 1% of those ages 0–4 report (presumably, by a caregiver) having one.

<sup>20</sup> Likewise, one might speculate that being gay in a homophobic society negatively impacts people both in direct ways and also insofar as some gay people may have internalized some preferences, due to social pressures, not to be gay. And this will lead to people being less happy. But this does not indicate that there is anything wrong with being gay see Barnes 2016, Ch. 6). I accept this argument; however, the issue with disability on the other hand is that the lack of evidence that the internalized preferences formed by people that are negative are *entirely* due to ableist social pressures, and that lifting them would entirely remove negative impacts of disability on WB\*.

#### 4.5. Summary

These studies, on the whole, paint the following picture. In wealthy Western countries (and Australia), disabled people are, on average, satisfied with their lives, and experience good levels of WB\*. However, their levels of WB\* are quite a bit lower than those who are not disabled. Although the evidence is mixed, it seems unlikely that this could *all* be explained by society failing to be fully accommodating (especially in light of van Campen and van Santvoort 2013), though quite a bit can be explained that way (as in Emerson et al. 2012 and Emerson et al. 2020). For many individual disabilities, pain and lack of sleep play considerable roles in lower WB\*, and while these seemingly intrinsic features likely have a social component, it is hard to attribute the negativity of pain and sleep loss entirely to lack of societal accommodation. (See Nadelhoffer (2022) for a detailed discussion of the impact of disability-related pain on QOL; also see Turner et al. (2004).) Furthermore, as noted above, studies indicate that the more severe the disability, the lower the WB\*.

The literature that I have reviewed is mixed in a variety of ways, although it should be noted that in any large review, we should expect there to be mixed findings (see Gunn et al. 2016). The existence of *some* contrary findings does not undermine a consensus. And even the studies most sympathetic to MDV (setting aside Pagán-Rodríguez, which I argue above have methodological problems—Emerson et al. 2012 and Emerson et al. 2020—show that not all the decrement of wellbeing from disability can be accounted for by social factors. That fact, in combination with the weight of the evidence from disability-specific studies I discuss in §4.3, makes it quite likely that MDV is false and NADV is true, given the results of the literature reviews as a whole.<sup>21</sup>

#### 4.6. Suggestions for Future Empirical Research

Most of the empirical research cited above is not geared to answer many questions that philosophers have been interested in regarding WB\*. Disabilities vary along many dimensions, and after spending quite a bit of time looking at the empirical research, my sense is that the variable impact on WB\* for many of these dimensions is under-studied. I would like to mention ten of them here.

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<sup>21</sup> After this paper was (conditionally) accepted by this journal, Elizabeth Barnes generously allowed me to read the proofs of her excellent forthcoming book *Health Problems*, and we discussed the issues that occupy me in this paper. In *Health Problems* and in our discussion, Barnes expressed that the arguments in *The Minority Body* would have benefitted from increased treatment of these empirical issues (see forthcoming, p. 142 fn. 18). In *Health Problem*, Barnes does proceed to conduct a careful examination of the empirical issues (specifically in Ch. 4 and its Appendix). Barnes is more skeptical than I am here regarding what I claim is convergence between studies (due to methodological hurdles such as those that I discuss briefly here in §3, and to which Barnes gives significant attention), but we agree on more issues than we disagree on. I look forward to engaging with the arguments in *Health Problems* in future work.

1. Whether the disability is congenital or acquired (see §4.4).
2. Whether the disability is progressive (like MS or Huntington's) or stable (like CP). If a disease is progressive, it may be harder to adapt to (as suggested by F&L 1999).
3. Whether the disability is constant (like SCI) or periodic (like migraine).
4. Whether the disability has its effects both *during* particular events and when in a passive state. For instance, some people with epilepsy must eat very restricted diets and avoid certain activities such as driving to avoid harms from seizures.
5. Whether the disability is visible or invisible (see Davis 2005).
6. Whether the disability is potentially reversible (like some forms of deafness) or not (like RA). Possible reversibility could lead to *less* coping, due to maintaining a desire to reverse the disability.
7. The degree to which external accommodations are available for the disability.
8. The degree to which the disability typically shortens the lifespan of those with the disability, which could lead to higher or lower cross-sectional WB\* for various reasons.
9. Whether the disability was caused by an event (and whether the event was caused by the disabled person themselves or by another individual) or if its onset is internal.
10. The ways in disability may differentially impact WB\* given interactions between disability and other personal features like race and gender.

Studying these might reveal vast differences in different individuals' experiences of disability.

## 5. Practical Upshots

### 5.1. Biomedical Ethics

There is an elephant lurking in the vicinity of what I have discussed thusfar. Barnes writes (in the Preface to her 2016, and in her 2018) that she was inspired to write on disability in part as a reaction against Peter Singer's work in bioethics. As Barnes summarizes (2018), "Singer [1993] thinks that the lives of people like me are ("on average") less valuable than the lives of nondisabled people. He thinks it would have been permissible for my parents to have had me killed as an infant, and better ("on average") if they could have replaced me with a nondisabled alternative." Barnes continues: "I find all this offensive, to say the least."

These are big issues, and a full discussion of them must be reserved for another occasion, but I would like to say a few things about how the approach in this paper

may shed some light on them. It might seem as if the results of this paper, with its claim that disability, on average, lowers WB\*, is a defense of Singer's view. But matters are nuanced, and for a number of reasons, I am more sympathetic to Barnes here than it might appear. Let me explain.

Singer explicitly states (1993, 188, quoted by Barnes 2018) that “[i]t may still be objected that to replace either a fetus or a newborn infant is wrong because it suggests to disabled people living today that their lives are less worth living than the lives of people who are not disabled. Yet it is surely flying in the face of reality to deny that, on average, this is so.” There are a number of problematic features of this quote. First, as I've stressed in my analysis of the data, the influence of disability on wellbeing is *highly* variable. Singer's quote, taken out of context at least, is phrased at a level of generalization that is unhelpful. If it is known that some subset of a group has some feature, but other subsets of the group do not, it is conversationally inapt to say that members of the group have that feature (without qualification). Now, Singer does indeed, in the relevant section of *Practical Ethics*, discuss very serious disabilities, such as infantile Tay-Sachs disease. So a charitable interpretation of Singer would accept that he is amenable to differential effects of different disabilities. However, Singer also claims in this context that spina bifida vastly decreases quality of life, when some studies (Barf et al. 2007, Cope et al. 2013) indicate that it does *not* in fact give a sustained decrement in life-satisfaction. More generally, as noted above, congenital disabilities don't lead, on average, to a major reduction in WB\* compared to non-disabled persons—and it is congenital disabilities that matter most in the kinds of questions regarding abortion that Singer is most concerned with. The deeper problem here is twofold: not only does Singer likely get it wrong about spina bifida; he gets it wrong in virtue of upholding an unexamined negative stereotype about disability. And although I have been critical of the way Barnes (2016) neglects relevant empirical work, this accusation also applies, *in at least equal force*, to Singer himself.

It is important to note that in the 3<sup>rd</sup> (2011) edition of *Practical Ethics*, Singer omits the phrasing “flying in the face of reality”. However, Singer does still go on to argue we can't make sense of certain ordinary judgments and practices (such as taking steps to avoid giving birth to some disabled children) if disabled people were not, on average, worse off. But here Singer begs the question: the main aim of works like Johnson's (2003) is to challenge these very stereotypes that lead to the ideologies and practices that society has about disabled people.

I have indeed argued above that disabled people as a whole have a lower level of WB\* than non-disabled people. I give this argument, at that level of generalization, in the context of analyzing empirical evidence in order to adjudicate whether NADV or MDV is correct. But I should make a note of a significant caution here: it is not clear to me that discussing decrements of WB\* among disabled people *as a*

*whole* is the right level of analysis to answer the relevant practical questions. Seemingly, the bioethical questions that concern Singer and others require analysis not at the level of disabled vs. non-disabled but at the level of an individual having a *particular* disability. However, further discussion of the question of the unity/disunity of disability must be left for another time.

My own view is that Singer is correct in what he says regarding extremely severe disabilities such as infantile Tay-Sachs (see also the helpful discussion on this point in Campbell and Stramondo 2017, 169–171). But what should one say in the end regarding decisions about fetuses who are found to have some specific disability, that, say, is known to have only a modest decrement in quality of life relative to non-disabled people? I will leave examination of this question for another time, but it is important to note that Singer, in his discussion of these issues, makes the simplifying assumption that the prospective parents “do not want the disabled child to live” (163). This assumption might hold for many prospective parents faced with a decision about a child or fetus with very *major* disabilities. But for children and fetuses with *minor* disabilities, it is not clear how many real-world parents in fact would fall under the assumption that they do not wish their child to live. So in practice, it seems as if the *ceteris* will most often not be *paribus*. An assumption that, in the relevant cases, parents do not wish their child to live due to a disability that has only a small impact on the child’s expected WB\*, is an assumption that the world is a less loving and caring place than it likely actually is.

Another concerning aspect of Singer’s discussion is the selective attention he pays to those with disabilities. Why not discuss terminating the lives of people doomed to be *shorter* than average, since their lives also tend to go worse than the lives of tall people (see Deaton and Arora 2009)? In general, it is concerning when someone applies a potentially offensive claim to one group in particular when such a claim might apply more broadly. So, even if we assume (totalist) utilitarianism to be true, Singer is at fault not just for a failure to examine the relevant empirical work on particular disabilities, but also for a failure to systematically review *other* potential cases where the total utilitarian would conclude that infants of a certain sort would be better off not living.

I hope in this section to at least have made more sense of the uproar among disability activists against Singer due to his discussion of disability. Given that I have not here assumed MDV, and instead focused my attention on the empirical research, I hope that my analysis here can help provide some middle ground that can lead to more fruitful discussions.

## 5.2. Concerns Regarding MDV’s Practical Role in Disability Discourse

Lastly, although MDV is offered by Barnes and others in the spirit of uplifting those who are disabled, I’d like to briefly point out two negative effects of the promulgation

of MDV. First, many people may find MDV *unbelievable*, and because of that, not give full credence to *other* things that disability activists have to say. The more nuanced NADV, as I have stressed, both supports an affirmative account of disability and is better grounded in empirical evidence, and hence may foster better dialogue.

Second, given that many, if not most, disabled people fail to be as happy as they were prior to disability, even after a lengthy period of time, and even after adjusting for ableism, there is a danger in presenting MDV as the correct view of disability psychology: it might make a disabled person who fails to return to their prior level of WB\* feel as if they are doing something *wrong*, or that something is wrong with them. It would be reasonable for them to worry: In addition to my having a difficult time in my situation, I obviously have something *else* psychologically defective in me, because I'm not adjusting as well as those *other* disabled people.

This is a difficult but not impossible needle to thread. It is good for disabled people to find value in disability. At the same time, it is good for disability activists to not present an *overly* rosy picture of the value. It is perhaps for this reason that most of the testimony from disability rights advocates (e.g., Gill 2000 and Swain and French 2000) just shows that disabled people are capable of living good and happy lives, and many succeed at doing so. There is simply no need for *comparative* judgments like MDV. (See Aas 2020 for a similar point.) In fact, it may be harmful to many disabled people to do so. And NADV does not face this problem, because it is explicit that there is a wide degree of variability among those with disabilities.<sup>22</sup> One might bemoan the fact that one feels worse off with a disability, but it might be consoling that both that this is a normal reaction and that one can still take pride in many features of their lives.

## 6. Conclusions

I should be clear that while I am critical of Barnes's empirical claims in *The Minority Body*, Barnes's argument for MDV is only a part of a larger picture of the nature of disability. Barnes views disability as *solidarity* (2016, §1.5.2, p.43): that, at its core, "it's a category people have found useful when organizing themselves in a civil rights struggle." I am in agreement with this claim, and with much of Barnes's solidarity-based account.

In sum, disabled people typically live good lives—lives well worth living. It is most likely not true that disabled people on average live lives at the same level of wellbeing as those without disability, and this is partly due to factors intrinsic to the

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<sup>22</sup> I should note that while I did not report *standard deviation* of the impact of disability of WB\* on disability—most general studies do not report this—my informal review of the disability-specific literature does indicate a fairly wide variability of outcomes. However, this issue deserves further examination elsewhere.

disability and partly due to ableist (and other) social factors, and we should be aware of this fact in crafting narratives, laws, and policy regarding disability. Nonetheless, rejecting MDV and accepting NADV is fully consistent with rejecting many negative stereotypes about the lives of disabled people and with affirming the many positive aspects of disability.<sup>23</sup>

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