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Abstract
This article examines how the process of constructing knowledge on impairment has affected the institutional construction of an ethic of disability. Its primary finding is that the process of creating knowledge in a number of historical contexts was influenced more by traditions and the biases of philosophers and educators in order to signify moral and intellectual superiority, than by a desire to improve the lives of disabled people through education. The article illustrates this epistemological process in a case study of the development of Protestant asylums in the latter years of the nineteenth century.

Keywords
epistemology, disability, ethics, Christianity, asylums, philosophy, enlightenment

Introduction

Nagel (2012) and Popper (1979, 1998, 2010) argue that there is a problem with the presentation of human scientific knowledge, such as biological evolutionary theory, as natural or God given
This article applies this criticism to educational descriptions of disability, and investigates how philosophical biases have been linked to the study of impairment. This has had a particularly harmful effect on the understanding of deficit and human capacity, as it has reduced bodily and psychological impairments into a single ethic of disability. This ethic stereotypes disabled people, and allows authors’ cultural and individual biases to skew classifications of impairments and disabled people’s identities. An example of this process is illustrated through a case study of Western Protestant Christian epistemology and US and British educational asylums in the 18th and 19th centuries. These institutions were chosen as their influential philosophies shed light on moral questions, transmitted through light and sound, and communicated through thought and behaviour (Hayhoe, in press; Foucault, 2001a). In the process of making these arguments, the article is framed by three questions: (1) Has philosophy since the Enlightenment created a useful understanding of people with physical, intellectual and emotional impairments? (2) Has the development of knowledge on consciousness led to a restricted understanding of disability? (3) How did the 18th and 19th century Protestants who established asylums for the education of those with disabilities respond to these influences?

This article has four aims. The first aim is to inform a debate on the ontology of disability in institutional settings, in order to provide a more equitable notion of inclusion for disabled people. The second aim is to begin a debate on the epistemological study of disability and impairments in education. This it is hoped will encourage philosophers to consider their influence on the development of knowledge, and its effects on the lives of disabled people. The third aim is to inform the development of more sophisticated methodologies and ethical strategies for studying the epistemology of ability, disability and impairments. And the fourth aim is to consider, by
way of a historical case study, whether the Christian educational responses to disability were more influenced by distinctive Christian thinking or by influential contemporary thinking.

The article has three sections. The first section provides a critical analysis of traditional philosophies of disability, and refers to the epistemological model of disability used to analyse these models. This section continues by describing the second element of the epistemological model of disability, that of the understanding of active and passive poles of exclusion. This leads to an examination of how epistemological development has led to passive forms of exclusion. In the second section, the case study describes the process of knowledge creation on impairment and supposed ability in the two centuries following the European Enlightenment in Britain and the US. The case study shows how their philosophies evolved subjectively rather than discovered universal truths, which this Enlightenment was designed to develop. In addition, it also illustrates how the application of these philosophies through institutionalisation led to the detrimental stereotyping of people with impairments as a class or subclass of disability. This stereotyping linked this disability to immorality, and treated disabled people as a lesser human species. The third section concludes the discussion, summarising the argument and providing suggestions for improved philosophical consideration within education.

**Methodology: The epistemological model of studying disability**

There has been little attempt to create a specific methodology of epistemological processes on which our understanding of impairments and disability has been founded (Hayhoe, 2012; Pfeiffer, 2002). Given this lack of methodology, the epistemological model of studying disability
(shortened to the epistemological model of disability in this and previous investigations) was
designed to examine these processes of creating knowledge on impairments. The model first
evolved from observations on the effect of philosophical assumptions about impairments
(Hayhoe, 2000, 2013a, 2013b, 2014, in press). This model was then extended to provide a link to
an ethical conception of disability, by providing a link to Popper’s (1966) notion of ethical
positivism. In addition, the epistemological model of disability also changed to address the
ontology of classes of impairments as disabilities. That is, it examined the manner by which
impairments were felt to disable people from completing tasks. This disability is either specified
in their classification or through beliefs about a whole personality as a result of classification.

The epistemological model of disability evolved to discover a different focus of examination. It
was designed to primarily encompass three core properties that it felt were neglected in social
models of disability (Hayhoe, 2012). The first property is that the root of exclusion is not always
founded on a broader desire to solely exclude and gain power over minority groups. Instead, it
focuses on the processes of knowledge creation. This too often stereotyping people’s impairments
and other physical and behavioural features. This property also problematizes the idea that
institutions can guide the need to suppress or control what is assumed to be deviance and
abnormality through therapeutic activity (Foucault, 2001a, 2003; Goffman, 1991). These
processes un-naturally classify people with different forms of physical and psychological
conditions under a single aspect or facet of personal identity.

The second property is that, although there are power functions embedded in developing and
implanting of knowledge, these functions are influenced by the biases of authors. These authors
become *a priori* the creators of the disability linked to such impairments. Therefore, authors take on a very powerful role as intellectuals, as they do not discover the truth as it lies in nature but construct it and repackage it according to their personal philosophical biases. These influences are in turn changed by what is felt to be these authors’ economic and political benefit. To put it a different way, the ethic of disability is created by the accumulation of the socially powerful biases of the authors of knowledge. Disability is not an abstract function of knowledge itself, which remains a passive creature related to the disabled individual on which it is imposed. This property is identified in a psychological interpretation of Foucault’s (2001b) model of scientific truths. This model contends that power is embedded in the primitive “truthful” knowledge that its creators hold over aspects of the socialisation of medicine and its systems of classification. In turn, these classifications hold independent power through the very nature of their use within discourse.

The third property of the epistemological model of disability is that it recognises that there are social and cultural differences in the theories of different impairments. That is, some forms of impairment are felt to make people less moral or to create more severe biological and social problems in different eras and in different locations. In the epistemological model of disability, the differences in these theories are termed *uneven* theories of disability. This argument opposes the British social model in particular, which argues that there is a single, unified conception of disability based on capital accumulation (Oliver, 1989, 1990, 1996, 2001, 2013). The epistemological model argues that problems are caused by the view that some disabilities point to some divine truth. For instance, it has been observed that socially and culturally constructed knowledge on the use of touch was derived from pedagogies developed in institutions for the
blind, which were themselves influenced by a philosophy of Enlightenment from the 17th and 18th centuries. This philosophy was designed to further a human understanding of perception and consciousness. In doing so, such Enlightenment ideology was designed to challenge the primacy of the metaphysical nature of the Catholic Church (Hayhoe, in press). This cultural process caused two distinct forms of exclusion.

**Active and passive poles of exclusion**

Literature on the nature of exclusion and disability, on which models relating to a social and cultural understanding of disability are primarily focused (Pfeiffer, 2002), relates to two poles of exclusion from society. These poles can also be applied to anywhere within the three epistemologically defined categories discussed above. One pole of exclusion is created through the process of generating a tacit, seemingly friendly, hegemonic understanding that people are incapable of inclusion, and is termed passive exclusion. The process of generating exclusion at the other end of this pole is referred to as active exclusion. This process of active exclusion is the process of creating knowledge and policy aggressively, in a discriminatory fashion, and targeted against what are regarded as the abnormal. This process is something that engenders an emotional affront to an able bodied person who has to deal with physical abnormality or difference. It also effects a situation in which able bodied people do not want to admit that their physical condition is of equal importance to people with impairments.

There can be said to be three observable forms of active exclusion. The first form is defined as violent and aggressive physical acts. Pfeiffer (1994) and Reinders (2008) observed that waves of pernicious legislation based on the belief in the inferiority of people with impairments led to
eugenic health-based policies and malevolent discrimination against disabled people in US institutional settings. This legislation particularly targeted those with learning difficulties, over the last two centuries. Similar findings were made by Tilley, Walmsley, Earle & Atkinson (2012), who observe that these practices were not limited to the US. They were also practiced by purportedly liberal governments in Canada and Northern Europe.

The second form of active exclusion is the state of segregation that can be observed in a more general social model of conscious exclusion. This form is observed where the deliberate oppression of disabled people is seen as analogous to oppression based on race or gender. Valeo (2009), for example, compares openly expressed forms of exclusion from opportunities shown to people with disabilities in Canada, with the prejudices presented to minority ethnic families in the same educational system over two centuries. In this context, active exclusion can also be seen as an act or process in which its context is intended to have an oppressive effect on disabled people. This leads to an attempt to control a set of people who are regarded as being a class apart. In this regard, the British social model sees all disabilities, strengths of impairment and stages at the onset of impairment as equal in this oppression. This is thought to be because it is the disability that arises from impairment that is seen as an object of difference and a target of oppression by able bodied people (Oliver, 2013).

The third form of active exclusion is an expression of marginalisation. This is observed beyond simple acts of suppression, aggression and violence against the presence of a disability or impairment. Hehir (2002) argues that the openly expressed opinions of society in the inferiority of the behaviour of people with impairments are regarded as distasteful and deviant to its social
norms. This behaviour is also regarded as a threat to its functioning as a homogenous unit. Thus, rather than acts of violence, aggression or physical exclusion, behavioural change to augment the performance of an able bodied person is imposed as a form of active exclusion of a disabled manner. This social act of exclusion results in a state in which Hehir finds that the,

   devaluation of disability results in societal attitudes that uncritically assert that it is better for a child to walk than roll, speak than sign, read print than read Braille, spell independently than use a spell-check, and hang out with nondisabled kids as opposed to other disabled kids, etc. In short, in the eyes of many educators and society, it is preferable for disabled students to do things in the same manner as nondisabled kids.
   (Hehir, 2002: P. 3).

By contrast, the passive pole of exclusion is observable in epistemological attitudes to disability as a concept that has largely evolved through arbitrary, moot factors. Although it sees exclusion as similar to that described by Hehir, the construction of attitudes are related to the epistemological attitudes of authors rather than those of society in general. These attitudes are often the result of separate power struggles which have an effect on the authors of a theory of ability. This effect is based on bodily function, emotion, cognition and behaviour. Thus, the passive exclusion pole constructs exclusion through a biological, psychological and social method of intellectual development. This in turn homogenises an idea of individual impairments forming disability and imposing a sense of false reality. This false reality is based on an assumed abstract central point of the ideal model of non-impairment. Passive exclusion is observable in two definite forms.
The first form of passive exclusion is exclusion that is not directly designed to gain power over people with different forms of impairment. Instead it is the result of authoritarian struggles in separate areas of society that have an effect on our attitudes towards a type of impairment. For example, struggles from the political, religious and economic epistemologies of blindness led us to believe that touch should be the only form of perceptual information in the educational and cultural inclusion of people who are registered blind. As a result, tactile art works and Brailed information have become the main symbols of inclusion for blind people in many institutions. This is in contrast to the finding that the majority of people who are registered blind have some form of visual perception and visual memories. It also ignores the finding that blindness can cover a number of different impairments, including colour blindness, tunnel vision or peripheral vision (Hayhoe, in press, 2013b).

The second form of the passive exclusion pole is observable in the unevenness of the process of exclusion from society. Through this process epistemology is affected by factors such as type and strength of impairment, and external epistemological assumptions about concepts such as social class, ethnicity and nationality. Thus, an effect of passive exclusion is that societies’ knowledge of impairments changes in different environmental, cultural and historical contexts. This has real social and emotional effects on the humans they are designed to analyse and interpret (Hayhoe, in press). Consequently, this second form of passive exclusion is largely the result of systems of classification that have left scientifically defined conditions vulnerable to over-simplified, mythologized hypothecation (Hayhoe, 2012). This argument is similar to Popper’s (1979) and Nagel’s (2012) observation that science reduces and over-simplifies what many intellectuals refer to as nature. For example, El Hessen (2006) and Hayhoe (2014) observe
that the physical impairment in the Islamic cultures of Arabia have taken on different forms at
different times from those in Western societies. Similarly, in a Western scientific context,
homosexuality was classified as a mental impairment by the US’s largest psychological
association until the early 1970s (Eyler & Levin, 2014).

What now follows is an analysis of how the effect of philosophical speculation about
impairments has led to negative academic theories about the human capacity of disabled people
and subsequent disabling practices. Here it will also be shown that the process of constructing
knowledge has led to largely passive exclusion of disabled people. In this case study, different
attitudes to separate abilities are also linked during an intellectual process through a passage of
time. This leaves the removal of one form of ability linked to the removal of a number of other
forms of ability through disabling practices.

**The philosophical linking of morality and intellectual ability in Protestant British and US
institutions during the 18th and 19th centuries**

**Impairment and disability in liberal Protestant philosophies in Britain during the 18th & 19th
centuries**

In this second section, the influence of this epistemological pattern is traced through a case study
of the work of Protestant educators who established asylums for people with disabilities. As
stated above, three forms of active exclusion describe conscious attempts to discriminate against
disabled people. This form of exclusion uses the same power structures and processes of
discrimination as those shown towards other oppressed groups, such as women and people from
ethnic minorities (Cole, 2006). The British social model in particular theorises that institutions for disabled people were created through a process of implementing power (Slorach, 2011). Social models of disability have been criticised for being too simplistic and ignoring the importance of medical interventions in preventing or alleviating forms of pain and impairment (Dewsbury et al., 2004; Terzi, 2004; Barnes & Halmstad, 2012; Palmer & Harley, 2012; White et al., 2010).

However, the understanding that exclusion can be reduced to a process of imposing power on people with disabilities is still among the core values of the British social model in particular (Oliver & Barnes, 2012). This is apparent in the belief that power is solely the domain of abled bodied people. Such beliefs ignore the fact that some of the most important intellectual models that were designed to separate disabled people from mainstream society were created by disabled people. It also ignores the fact that many non-disabled people provided what was felt to be help to friends or relatives with disabilities through the development of institutions (Hayhoe, in press). This observation suggests a more passive form of exclusion, the influence of which was intended to be benign. This philosophy was based on what was felt to be a liberal ideology of support. The common aim that these institutions shared, whether they were for medical or educational treatment, changed the moral landscape of the impaired individual. This aimed to improve what was felt to be their life chances through commercial production, knowledge and moral dignity.

For example, in his Essay on the Blind for the Use of Those Who See, Diderot (2001) founded a liberal social and moral philosophical theory on the condition of blind and deaf people in France.
in the 18th Century. This promoted their moral equality. This equivalence was greatly doubted in Europe at the time as blind and deaf people had traditionally been thought of as morally uneducable. This factor was made worse as blind and deaf people were most often seen in public as an underclass of beggar (Hayhoe, in press). As Diderot stated,

> Our virtues depend so much on the sensations we receive, and the degree by which we are affected by external things… [Yet,] Madam how different is the morality of the blind man from ours? And how different would that of a deaf man from his? And how to one with an extra sense, how deficient would our morality appear – to say nothing more? Our metaphysics and theirs agree no better. (Diderot, 2001: P. 156).

One consequence of Diderot’s letter came later in the 18th Century through the proposal for a separate educational system for blind people. This proposal was published in one of the most prominent, liberal journals of the Enlightenment, the Edinburgh Magazine & Review, by the blind poet, Protestant cleric and philosopher Blacklock (Demodocus, 1774). Blacklock, a philosopher and Calvinist preacher, wrote under a pseudonym based on the blind bard and poet from Homer’s Odyssey (Weygand, 2009). His model of educating blind students was based on the liberal, materialist citations of Diderot and the blind Lucasian Professor of Mathematics from Cambridge University, Saunderson. These citations were also used by another liberal admirer of Diderot’s, Hauy (1889), the founder of the first separate institution of educational Enlightenment for the blind in 1785.

Similar observations to those of Blacklock and Hauy were offered by a consortium led by Rushton (Hunter, 2002), a blind, Anglican anti-slavery and French revolution advocate. Rushton
helped to found the second such institution as an asylum for the blind in Liverpool in 1791. Similarly, in the 19th Century Tuke, a liberal English Quaker, founded what he called his Retreat as a form of asylum to help his fellow Quakers who had emotional impairments. This help was provided through a system of what he called Christian moral treatment (Schwab, 2013).

Later in the 19th Century a separate educational institution in the UK was formed to elevate the life chances of blind middle class children through a belief in their musical and intellectual ability. This school was called Worcester College for the Blind Sons of Gentlemen. It was founded by an Anglican cleric, the Reverend Blair, as a high fee paying boarding school for blind students whose families wanted them to gain university entry. Blair was already an academic tutor at the local King’s School, had previously tutored a blind clergyman’s son and felt special provision should be made for similar male children (Fletcher, 1984). Worcester College became so successful that it later admitted sighted boys of the same social class. This was a practice that remained until it was managed by the Royal National Institute for the Blind (RNIB) - the earliest incarnation of the RNIB was itself founded by a blind surgeon in the 19th Century (Hayhoe, in press). Thus, the exclusion of disabled people in these asylums developed as part of what became a progressive, liberal agenda. This agenda was based at least in part on a materialist philosophy of the potential moral equivalence of people with certain forms of impairment. This new belief was in itself traditionally considered to be a cause of immorality by other more traditional philosophers (Hayhoe, in press).

This epistemological process of passive exclusion through a liberal agenda became more complicated by the formation of later asylums. These asylums proposed similar, practical forms
of exclusion and were based in large part on a more metaphysical understanding of the moral condition of impairments. In Britain, separate institutions were founded by non-conformist Protestant Christian foundations. One example was the Quaker foundation of the Bristol Asylum for working and underclass students. This asylum was established on the principle that blind people from the lower classes could not obtain morality through perceptual information. However, it was believed that its inmates could achieve religious salvation through reciting Bible passages as they performed hard manual labour.

This formed a vocational path to moral enlightenment (Bristol Asylum, 1799, 1838, 1887; Bristol School of Industry for the Blind, 1908). Similar sentiments were observable in asylums for working and underclass students who were deaf at the end of the 18th Century (Padden, 2005). For instance, the founders’ statement of The London Asylum for the Deaf and Dumb Children of the Poor stated that its founding pedagogy should be based on the moral management of its students. This management was designed to inculcate its inmates into communication it felt was normal; that is to say, morally acceptable communication suited to a morally superior class of people. Thus they were,

according to their various capacities, conversable and intelligence, able to receive and express ideas; to furnish them with moral and religious information; and to lay open to them, in a considerable degree, the sources of intellectual enjoyment, common to rational and cultivated minds; by teaching them to understand the power and use of language; not a language of signs peculiar to themselves; but the common language of the country to which they belong, and which is spoken and written by those around them. (Asylum for the Support and Education of Indigent Deaf and Dumb Children of the Poor, 1807: P.5).
Protestant fundamentalism and the formation of a scientific ethic of morality and impairment in the 19th Century in the US

In Massachusetts, US, institutions were founded on European liberal materialist and Protestant metaphysical policies. These policies were implemented through disabling practices by re-interpreting moral and biological deviance through the Austrian science of phrenology. Phrenology was originally a liberal science developed in the late 18th Century, and founded on the belief that the shape of a person’s brain was related to distinctive behaviours and cognitive processes (Smith, 2013). In the US it was used to inform a rationalisation of moral, vocational and scholastic philosophies of ability by largely non-conformist Protestant theorists (Modern, 2011).

The most important phrenological epistemology in this period was established by the liberal, anti-slavery campaigner and Greek independence fighter, Howe. For Howe, three impairments - blindness, deafness and learning impairments - were of particular importance as a focus for the earliest asylums in the vicinity of Boston (Howe & Howe Richards, 1909). Howe’s focus was a new intellectual conviction in the scholastic hierarchy of ability amongst these three impairments, with blind people being thought of as the most scholastically able (Howe, 1833, 1836). However, like many of his more traditional European counterparts he was to argue negatively that all three physical impairments reduced the moral ability of disabled people equally (Howe, 1837).

Howe’s intellectual process saw two important epistemological shifts in the theorisation of
impairments and deviance. The first shift was the creation of a theory that immorality and
deviance could be physically developed through the behaviour of being disabled. This
development was then passed on through a progressive inheritance to the next generation. These
behaviours were generally related to what was considered to be Protestant non-conformity in
Boston. For instance, in the 1830s the Temperance Society reported their belief, based on
Howe’s theory, that the behaviour of drunks could be inherited by their children. This theory was
formed after it was observed that progenies with certain neurological impairments moved in an
uncoordinated manner similar to those of their intoxicated parents. As an Intemperance Society
pamphlet of this era stated,

Intemperance – Dr Howe, of Boston, commissioned to prepare a system of education of
idiots (sic.) estimates their number in Massachusetts are over 1200, and that three fourths
of them are born to intemperate parents. Many under his care, children of such people,
have the air, gait and appearance of drunken men. (Temperance Society Notices, 1836,
sourced from the Research Library, Perkins School for the Blind, Watertown,
Massachusetts, US.)

In the centuries prior to Massachusetts’ first asylums, European intellectuals felt sexually
transmitted diseases (such as syphilis, which caused blindness and forms of learning and
emotional impairments) made children more vulnerable to their parents’ immoral behaviour
(Hayhoe, in press). Consequently, Howe combined this liberal material philosophy with the more
metaphysical beliefs from a previously puritan era in the Boston area (McGiffert, 1994). This
new theory manifested itself in his argument that deviant immoral behaviour could be inherited
through consecutive generations. For example, in his essay, Discourse on the Social Relations of
Man presented to the Boston Phrenological Society, Howe (1837) proposed that physical forms of impairment increased immorality in the person that possessed them. This theory was based on a belief that disabled men and women had strayed from the path of God in being impaired, and that such immorality could become hereditary. Thus, Howe stated,

That God has given to the human race, collectively, the capacity of perceiving, and the power of executing those conditions on which the development and improvement of the immortal spirit is dependent; that observances or neglect of these conditions is visited upon the race to the third and fourth generation...

That when the original formation of these organs is according to the general laws of nature, the individual is a free moral agent, and responsible for his actions according to the degree of his intelligence; that when the original organization is un-natural, or when it becomes diseased, or when the organs sleep, the individual is not a moral free agent.

(Howe, 1837: no page number)

Howe’s second epistemological shift was the reductionist process of scientifically linking morality across whole communities. This shifted an understanding of moral inheritance and change from an individual psychological legacy of moral behaviour. In consequence, it became one of a social and cultural model of ethics and deviance; a form of what would become a social scientific understanding of Western impairment and behaviour. Thus, a consideration of deviance and immorality became linked to a publically mediated inheritance of impairment as a consequence of collective deviance. Consequently, Howe proposed that the immorality and deviance of a community could be quantified by the number of impaired people that resided within it. Thus, according to Howe reducing deviance would reduce the amount of disability in a
community,

I take it for granted that the existence of blindness, like every other physical infirmity, is the consequence of departure from the natural laws of God; that the proportion of blind persons in every community is dependent upon the comparative degree of the violation of natural laws; and the scientific observations can in almost every case point to the kind and degree of violation. (Howe, 1837: no page number).

In the manner of their Protestant British counterparts, US institutions held the belief that deviant behaviour could at least in part be treated through vocational education. Thus, Howe’s institutions also adopted an asylum model. This model was largely influenced by the Protestant principle of blending a work ethic (Weber, 2001) with scholastic education to develop morality through the phrenological exercise of the brain. This method, he felt, would improve elements of intelligence and performance, and reduce deviance and immorality (Howe & Howe Richards, 1909). However, his need to prevent deviance and immorality also led him to design a method of controlling the education of the able-bodied community too. This secondary activity was intended to avoid impairment before it influenced the social degradation of the broader society. It was therefore based on a simple understanding of the individual’s need for moral development as pre-emptive preventative activity, as had previously been theorised in Europe.

A consequence of this epistemological shift, and in partnership with the educator Mann (1839), was Howe’s development of an environment of mainstream education. This development ranged from the layout of the classroom to the design of the desks to provide good posture (see Figure 1). This, it was believed, would physically avoid creating impairments through phrenologically
controlled physical deportment. In doing so, Howe proposed that his method of education would suppress the spread of immorality throughout the wider population of Massachusetts. Through the support of his colleague Mann, this regime would later become an element in the founding of the US’s public school system (Boyd, 1928). As Howe stated at the time:

We should never read but in the erect posture; we should never read but when the arterial system is in a state of high action…

I believe an attention to the physiology and laws of vision, by parents and instructors, would be of great benefit to children, and diminish the number of opticians; for as surely as a stone thrown up will come down, so surely the exposure to causes of evil, bring evil, at some time, in some way, upon somebody. (Howe, in Mann, 1839: P.300).

{Figure 1 Here}

Admittedly, the theory of moral treatment through the education and training of people with disabilities was pursued in a more equitable fashion after this intellectual era. However, the understanding of disability itself as being deviant continued to evolve using a similar process, through the development of a quasi-natural understanding of ability. This process led to a combination of passive and active exclusion (Hayhoe, in press). As Engels observed of epistemological development up until the middle of the 19th Century, ‘It is precisely the alteration of nature by men, not nature as such, which is the most essential and immediate basis for human thought’ (Engels, 1940: P.40). This alteration of a presumption of nature again led Western societies to develop a common taxonomy and to culturally subjective ontologies of different forms of impairment. This development was affected by changing processes that
continued to determine overlapping classifications, such as scholastic ability, morality, physical performance and emotional development. This showed a more complex understanding of the history and cultural subjectivity of opinions on ability and disability. This also effected its process of reductionism that in turn influenced governmental policies in Massachusetts later in the century; although its process of using morality changed to take on more materialist philosophies.

For example, the publication of evolutionary biological theory and the law of natural selection in Origin of the Species occurred in 1859 (Darwin, 1956). Following its publication, Massachusetts’ Governor, Butler, argued that the need to educate people with learning impairments was of a lesser necessity than previously thought. Given Darwin’s principle of the survival of the fittest, it was felt that moral control would best be served by directing such education to the most able in society. Thus, what were felt to be the least mentally able in this respect would not infect society as a whole as Howe argued, but instead merely fall by the wayside. This hypothesis borrowed significantly from Darwin’s theory that animals whose characteristics could not evolve to survive in their given environment.

When the State shall have sufficiently educated every bright child within its borders, it will be time enough to undertake the education of the idiotic and feeble-minded. I submit that this attempt to reverse the irrevocable decree as to 'the survival of the fittest' is not even kindness to the poor creatures who are at this school. Give them an asylum with good and kind treatment; but not a school. The report from that school shows that none of its pupils have been made self-supporting by its teachings. The report further shows that those in whom some spark of intelligence has been awakened, have become so ashamed
of their school that when they write to their parents they beg for paper and envelopes which have not its card upon it. That is they have been educated simply enough to know of their deficiencies and be ashamed of them-selves and their surroundings. We do not contribute to their happiness by giving them that degree of knowledge. A well-fed, well-cared for idiot, is a happy creature. An idiot awakened to his condition is a miserable one. (Butler, in Rogers, 1898: pp.152-153)

Conclusion

The philosophies, institutions and social movements that have informed our understanding of disability in education have without doubt helped to further an understanding of physical, environmental, social and cultural exclusion. These philosophies have also helped society understand what people with impairments have to tolerate in their daily lives and the education and training of people who, prior to the Enlightenment, were often outcast by their able bodied peers and stigmatised by primitive beliefs about the nature of impairment. However, the promise of the philosophies written since the Enlightenment have been unable to move beyond the reductionist problems that characterise what Nagel (2012) refers to as the mind-body problem. All thought must contend with this.

Although the case study presented in this article was short, it is certain from the evidence presented in it that the epistemological process of understanding impairment by the Protestant founders of institutions in the 18th and 19th centuries has at least in part been affected by the restrictions of simplified cognitive processes. They are also influenced by the immediate cultural and intellectual environment. As a result, theorists have perpetuated an understanding that
impairment of a body part or a learning process has an effect on other, parallel but unrelated processes. This includes the linking of all perceptual or cognitive impairments with lack of academic potential, and the subsequent linkage between lack of academic ability and immorality. Theories of body and consciousness has also been manipulated by personal biases and stereotypes in order to address larger philosophical arguments on scientific methodologies. Therefore, more research is needed on the epistemology of impairments in order to highlight how this stereotyping has affected the theorisation, treatment and potential exclusion of disabled people in the present.

And so what is the way forward in developing new philosophical processes of understanding impairments and disability? The first course of action is to devise particular methodologies for understanding the epistemology of impairment, and the subsequent understanding of an ethic of disability that it causes. Although the methodological model discussed in this article attempts to start this process, there is a great deal further to go in this regard. For instance, although it provides a tool to model the historical development of knowledge and analyse its affects at different points in history, the epistemological model of disability in this article has yet to develop a tool to analyse the more complex power structures of competition between different academic paradigms. These power structures include those used to devise a classification of disability and impairment without relying heavily on old ideals and ontologies of intellectual ability.

A second course of action that is needed is to understand the ontologies that have informed institutional policies and laws. These ontologies are traditionally aggregated for practical
purposes, as they need to streamline the processes of implementing services. Yet this process of simplification can often also be at fault for providing improper and poorly thought through policies that passively exclude people from vital services. The third course of action must be to analyse and work towards new systems of philosophy that can treat individuals as autonomous, holistic beings. These are beings who have unique cultural identities beyond their disabilities. Until philosophy can overcome its fundamental need to reduce highly complex issues in order to unify theory and unify thinking, then its own epistemological process is not fit for purpose and leads itself into its own disabling practices.

The fourth and final course of action is to heed the warning of the case study. The contemporary epistemological approaches that led to both active and passive exclusion were evident in the Protestant responses to disability that led to the setting up of the asylums. This is a salutary example. In thinking about Christian responses to education and disability in the future, the case study warns of the importance of understanding clearly the contemporary theories in order that we might not fall prey to modes of thinking which in effect deny distinctive Christian responses.

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Figure 1

(Howe, in Mann, 1839: pp. 301-2)