Tunes of Impairment: An Ethnomusicology of Disability

Alex Lubet, Ph.D. School of Music University of Minnesota

Abstract: "Tunes of Impairment: An Ethnomusicology of Disability" contemplates the theory and methodology of disability studies in music, a sub-field currently in only its earliest phase of development. The article employs as its test case the field of Western art ("classical") music and examines the reasons for the near total exclusion from training and participation in music performance and composition by people with disabilities. Among the issues around which the case is built are left-handedness as a disability; gender construction in classical music and its interface with disability; canon formation, the classical notion of artistic perfection and its analogy to the flawless (unimpaired) body; and technological and organizational accommodations in music-making present and future.

Key words: music; disability; classical

Introduction: The Social Model of Disability

Current scholarship in Disability Studies (DS) and disability rights activism both subscribe to the social modelⁱ that defines disability as a construct correlated to biological impairment in a manner analogous to the relationship between gender and sex in feminist theory.ⁱⁱ Disability is thus a largely oppressive practice that cultures visit upon persons with, or regarded as having, functional impairments. While social constructs of femininity may not always be oppressive, the inherent negative implications of 'dis-ability' automatically imply oppression or at least dis-advantage. Like constructions of gender, categorizations of disability are fluid; variable between and within cultures. Activism by persons with disabilities (PWDs), which includes DS, seeks accommodations to the differences of PWDs rather than "cures." Indeed, the older "medical model" regards disability as deviance needing correction and grants authoritative voice to the medical professional rather than the disabled subject. This model is widely regarded among disability activists/DS scholars as the "opposition." "iii

Disability as defined by the social model is, like race, gender, or sexuality, culturally contingent. At times, impairment may be as well. While this may seem to contradict the characterization of impairment as biological, impairment matters only when identified. While, for example, total blindness/low vision may be regarded as an impairment in all cultural settings, profound hearing loss is not. For example, owing to a genetically inherited condition, at one time over 25% of the population of the island of Martha's Vineyard, Massachusetts was deaf and non-speaking. Deafness was regarded as common, "normal" variation of the human condition. Martha's Vineyard Sign Language was universal and deafness was regarded as neither a disability nor an impairment.

Today, profound hearing loss is regarded by the Deaf Culture--including both hearing impaired and hearing people fluent in sign language^v - only as a difference which, though culturally oppressed by the hearing community, lacks inherent functional disadvantages. Thus, hearing loss is regarded by the Deaf^{vi} as a disability but not as an impairment.

Another instructive example of disability sans impairment is fully correctable low vision. The admonition, "Boys don't make passes at girls who wear glasses," illustrates perfectly how a

condition readily "fixed" and thus not generally (or legally) regarded as an impairment is nonetheless a disability in cultures that consider corrective eyewear unattractive. Elsewhere, there have doubtless been (and may still be) cultural spaces where some low vision is irrelevant, perhaps even undiscovered, because tasks such as reading or driving are not performed. (Shortly, I discuss a common physical condition that is both impairment and disability in the context of musicking but rarely elsewhere.)

I propose here an ethnomusicology of disability. The emergence of DS's unique modes of inquiry, numerous unanswered questions about disability and music, and the ascendancy of autonomous Disability Culture combine to motivate this new window through which to contemplate musicking.

What might an ethnomusicology of disability be? It would examine how musics construct disability and negotiate--that is, heighten and/or accommodate--impairment. It would distinguish between disabilities of musical praxis – composition, performance, reception – and disabilities of representation - the rendering of the disabled subject as a theme in musical works. The temptation to designate praxis "fact" and representation "fiction" must be mitigated, as music communities often mythologize their important figures. Some of the most important historical – thus legendary – figures in Western Classical Music have been PWDs, including Beethoven – his deafness well-known – and Mozart, often posthumously diagnosed with various disorders associated with behavior and socialization, including Tourette's Syndrome. Both have been subjects of postmodern cinematic fictions: Beethoven in *Immortal Beloved*, Mozart in *Amadeus*.

Case Study: Western Classical Music

To advance this project, I will illustrate here with a consideration of Western Classical Music (WCM) performance. Data is drawn from extant participant observation – that is, recollection – mine and that of my wife, Dr. Iris Shiraishi, over nearly sixty years combined experience as academic and professional musicians. We recall only ten student musicians with disabilities, from elementary school through doctoral programs, six blind, four with mobility impairments, xiii out of thousands of students in varied settings.

While numerous ways/sites of musicking have afforded exceptional opportunities for employment and expression to PWDs, especially blind musicians, WCM presents formidable impediments to full participation, most notably to the vision-impaired. Foremost is WCM's exceptional dependence upon written notation, especially sight-reading. (Braille music usage is mostly mnemonic since, of course, reading Braille occupies the hands.) Visual communication with a conductor presents additional difficulties.

Some activities, such as piloting a motor vehicle, cannot currently be accommodated for all PWDs. While playing an instrument in a conducted ensemble *may* be such an activity, the blind student musicians I have known have indeed participated in such groups. Variety Unlike driving, performing in orchestra, band or chorus without benefit of sight is not hazardous. It is an activity vision-impaired people both choose and, as music majors, must fulfill as a curricular requirement.

Only one of the blind music students in our data, a violist, fulfilled her large ensemble requirements in an instrumental ensemble. The conductor of her graduate school's orchestra did indeed object to her participation; she lasted only a semester, although she told me she had been highly regarded in her undergraduate orchestra. (She did not major in performance as a graduate

student and had no ensemble requirement there.) We have never observed a vision-impaired musician in a professional symphony.

It is too simple and facile to excuse barring of blind instrumentalists from Western symphony orchestras as a necessary exclusion based on a bona fide occupational qualification. I am not (yet) insisting the contrary – that such exclusion is unambiguous marginalization due to disability rather than a necessary if unfortunate consequence of impairment – but I am positing that hypothesis.

What follows contemplates whether absence of blind musicians from orchestras is reasonable or oppressive, based on principles of DS/disability activism. It begins by introducing basic DS concepts that initially appear far afield but eventually reveal new means to contemplate musicking.

Disability activism emphasizes demands for accommodation rather than "cure." Accommodations employing principles of Universal Design (UD), in facilities such as transportation systems or buildings, are incorporated from a project's inception and are as broadly applicable as possible. Curb cuts, electric doors, and closed-captioning have proven not only unobtrusive to the non-disabled but widely useful. While supertitles originated as captioning for the deaf, they now also enhance the enjoyment of opera for the hearing. xvi

Universal Instructional Design, the application of UD principles to teaching, was initially developed at the University of Massachusetts, by Silver, Bourke, and Strehorn. UID integrates pedagogies to determine what may be transformed to accommodate special needs without sacrificing essential content. During a UID curriculum transformation project in which I participated in 2000, I eliminated timed tests and distributed my own course notes explicitly to accommodate non-native English-speaking students since, as noted, music students with disabilities are rare viiii - while enhancing the learning environment of all.

Applying UID thinking to the question of blind orchestral musicians, one asks, "What is the essential experience of orchestral music? What is gained by accommodating blind musicians? What is lost by the non-blind through this accommodation?" The value of DS/UID methods here is not necessarily in finding a "right" answer, but in framing questions that would not otherwise be asked. DS requires an epistemology of difference that differs from – and is arguably more radical than – ethnic, gender, or queer studies. Transcending impairment in the interest of equality can be more complex – sometimes requiring technological solutions – than transformation of the marginalizing attitudes/discourses that lie at the heart of these other discriminations.

Sight is not needed to sing or play. When I observed blind students in conducted ensembles, I did not notice delayed responses to cues or other detriments, though these surely could happen. Conductors of professional ensembles would doubtless regard even the possibility of flawed entrances intolerable. The stakes in the participation of blind musicians in conducted ensembles differ considerably from fields like auto racing or neurosurgery, thus problematizing values quite differently. What is gained by blind people's participation are greater utilization of human resources and the improved quality of life for all that comes from eliminating the oppression of any. What is feared is some loss of the precision extolled by WCM, although the growing number of conductorless groups like the Orpheus Chamber Ensemble – who certainly rely less on visual cueing – indicate a willingness even among orchestral musicians to forsake authoritarian control in favor of interplay. A joke that circulated at the 2001 Minnesota All-State Orchestra Camp is instructive: Why is a conductor like a condom? Safer with one, more fun without one. xix

That a competition of musicking values worthy of consideration even exists – between the precision that comes with having a conductor and the risk to that precision that derives from the inclusion of musicians whose low vision prevents her being seen – is a question that likely emerges only from a DS perspective within ethnomusicology. Elsewhere in musical discourse, WCM's quest for technical perfection would prevent the issue from even being raised.

A logic lies behind exclusion of blind musicians from conducted ensembles, thus from professional, academic, even amateur opportunities. But full representation of WCM's construction of disability must integrate a fuller range of impairments. DS identifies disability as the oppression of all people with impairments, much as queer theory recognizes the oppression of all non-heterosexuals. To determine conclusively that a way of musicking is disabling requires demonstration that impairments that clearly have (little or) no bearing on performance nonetheless result in marginalization.

The Disability/Impairment Status of Left-Handedness

WCM may be unsurpassed in creating a major impairment from a common human variation that presents few if any limitations elsewhere; left-handedness. Unlike left-handed orchestral string players, left-handed guitarists are fairly common. Several rock and blues players, including Jimi Hendrix, Albert King, and Paul McCartney (mostly a bass guitarist), have been justly famous. While adaptive options for lefties exist, simply invert right-handed instruments. Others, like Bob Dylan, Mark Knopfler, and even country singer Lefty Frizell simply play right-handed.

The situation for performers of bowed strings in WCM is quite different. Rarely does one see young left-handed players, let alone adults. We have never seen one in even a beginning orchestra.

Left-handedness is a complex phenomenon. The degrees to which nature (genetics) and nurture contribute are controversial. Unlike writing, string playing of course requires both hands. While right hand plucking/bowing-left hand tuning appears to be the universal standard division of labor, the more challenging work is by no means always assigned the right hand, particularly on fretless instruments like violin. No less a violinist than Jascha Heifetz, who of course played right-handed, was elsewhere a lefty. Heifetz notwithstanding, the guitarists who, in a less hostile environment than for bowed strings, opt to play left-handed may indicate that many people achieve less than full potential in the right-handed world of orchestral strings. Either their playing suffers for their having been switched, they opt for more ambidextrous instruments, or they eschew music making altogether. A common human variation that should present no functional limitations thus becomes an impairment in WCM. **xiii*

A sidebar is apropos here. What may first seem a tangent illustrates clearly the value of DS thinking for ethnomusicology. My colleague Amy Salmon (ABD, Education, University of British Columbia) has challenged my characterization of left-handedness as an impairment rather than as a disability. I had pondered the matter myself for some time and our exchange prompted me to explore and explain my position in depth.

Ms. Salmon's arguments have obvious merit. We are both correct. Whether left-handedness is an impairment or a disability depends on perspective. Understanding this illuminates ethnomusicological thinking far beyond disability issues.

That I believe left-handedness is a biological rather than social matter owes to my having personally experienced WCM as a discreet cultural space for 30 years. That WCM is a valid unit

of cultural analysis is borne out by significant scholarship, including Bruno Nettl's *Heartland*, xxvi Henry Kingsbury's *Music, Talent, and Performance*, and Christopher Small's *Musicking*, xxvii anthropologies that contemplate WCM from the vantage points of, respectively, a university school of music, a conservatory, and a symphony orchestra. When these ethnomusicologists interrogate WCM – more or less looking in the mirror – they investigate it *as* community, rather than *in* community, a position similar to Deaf, Disability, and other cultures whose autonomy is far more apparent to insiders.

On Planet WCM, playing instruments of the violin family, the nucleus of the symphony orchestra, is a major life activity. Playing left-handed is quite simply impossible. Thus left-handedness, an immutable, hard-wired bodily fact even if partly nurtured (the parallel with theories of the nature of homosexuality is notable), is an impairment.

However, the perception that WCM is a world unto itself, so strong in WCM musicians themselves, is reflective, not of the "West" *in toto*, but of its classical music "community." It includes the abovementioned scholars who, despite being ethnomusicologists, thus marginalized outliers in this context, having dwelt in this WCM "place" – a community of shared experiences, if not shared values – for decades.

From an etic perspective like Ms. Salmon's, WCM's anti-sinistral bias is not an impairment, but a disability. An irrational prejudice against lefties, who should be entirely capable of playing the violin in their southpaw way if only given permission, is manifest in discriminatory practices. This is borne out because elsewhere in the musical world left-handed guitarists thrive, even in the highest echelons of stardom. **xxviii**

The titles of two popular ethnomusicology textbooks, Jeff Tod Titon's *Worlds of Music* xxix and Elizabeth May's *Musics of Many Cultures* xxx (underlines mine) are interesting in this context. People like Ms. Salmon who are not music professionals are more apt to perceive "music" or "the world of music." The concept of "musics" as rather than of communities is relatively recent and of particular importance in ethnographies of WCM.

It is difficult to conceive of a problem whose analysis more strongly reveals the myth of objectivity. Nowhere is the body more of a problem than in DS's contemplation of problem bodies. My choosing impairment over disability in characterizing the experience of WCM's left-handed complement reveals that I, like Nettl, Kingsbury, and Small, have lived and felt WCM as a world unto itself and thus concluded that it is an appropriate unit of analysis from an anthropological perspective.

Ms. Salmon, not a denizen of planet WCM, did not conceive of – or feel – WCM as a cultural autonomy, and thus concluded that it treats left-handedness as a disability, not an impairment. We are both correct from our own standpoints, each inseparable from our lived experience, inherently subjective.

The lesson for ethnomusicology--that perception, even of what is biological and what is social, is a matter of standpoint – is one perhaps it already knows, although most scholarship, written from – or *as if* from – an outsider's perspective, indicates that it is not deeply felt. I am rarely impressed that an ethnomusicologist has reported in a manner that powerfully confesses the influence of standpoint. Writings about WCM – ethnomusicological self-studies – are notable exceptions. Applying DS thinking to WCM, ultimately the most emic context for (most Western-trained) ethnomusicologists, reveals that it is an imagined community insofar as those who do not share our repertoire of experiences perceive it as something far less autonomous than the world unto itself we feel it to be.

Unlike ethnomusicology, insider perspectives are privileged in women's, ethnic, and,

perhaps even more, queer studies. This is similarly and powerfully true in DS as well, where life as a PWD (and sometimes as a family member of a PWD) is regarded as providing insight that is difficult to supplant through any kind or amount of non-experiential learning. It is interesting that white ethnomusicologists overwhelmingly choose to study the other, while ethnomusicologists of color tend to be self-studiers. xxxi

Back to our story.

The rationale for exclusively right-handed string sections is principally visual effect, although sound might also be very slightly affected by having a few fiddles facing the opposite direction. Such fastidiousness, which could seem hypersensitive from an etic perspective, is quite consistent with the attention to detail currently so highly valued in WCM. In a music culture principally engaged in propagation of a canon of old works that permits relatively little latitude of interpretation or improvisation, attention to minutiae becomes a principal arena in which artists and ensembles compete for attention.

The ideal of uniform direction of bowing, part of the impression that the ensemble plays "as one," is consistent with the desire for perfectly unified responses to conductorial cues. The former requires the impairment of left-handed string players, the latter the exclusion of the visually-impaired, two classes of musicians who flourish beyond WCM, under different rules and value systems. Like (or more than) the symphony orchestra, rock music is both sonic and visual art, where groups like the Beatles and the Jimi Hendrix Experience displayed uniquely elegant symmetries around their left-handed stars. **xxxii**

Aesthetically and metaphorically, inclusion of either of these marginalized classes of musicians in an orchestra might give the impression that this body, judged above all by its technical perfection and grace, would unacceptably twitch, that is, sound or look impaired. Orchestras are hardly unique in their disdain for a disabled appearance.

Supercrips: Do Exceptions Prove the Rule?

What might seem to challenge my thesis – that WCM disables and impairs in ways other musics do not – are several PWDs among leading soloists and conductors. They include violinist Itzhak Perlman, percussionist Evelyn Glennie, conductors Jeffrey Tate and James DePriest, and vocalists Thomas Quasthoff and Andrea Bocelli.

Complex politics permit, even encourage, soloists and conductors with disabilities while rank-and-file musicians with disabilities remain so rare. It has long been possible for members of marginalized classes to reach the top of competitive fields like the arts and athletics while oppressed people of more typical abilities struggle for equality of employment and other basic rights. Fields requiring exceptional talent are less – or differently – discriminatory, at least partly because successful members of these groups serve established interests by appearing to provide evidence that hard work, ability, individual incentive and perseverance, rather than institutional reform, are all that are required to succeed.

In DS parlance, PWDs who "make it" against all odds are "Supercrips." ("Crip," short for "cripple," is a pejorative PWDs use similarly to the manner in which African-Americans use "nigger.") This in no way implies PWDs are contemptuous of success, only disdainful of such accomplishment being touted to rationalize an oppressive status quo as if it presented no serious obstacles that could not be overcome simply through elbow grease and grit. Supercrips make even better rags-to-riches narratives of individual will than ethnic minorities or women, as it is easy to declare that their triumphs are over their own "handicaps," rather than systemic

discrimination.

The careers and public personae of the WCM Supercrips noted above have differed, according to performing medium, impairment, and gender. Each could generate an entire article.

Violinist Itzhak Perlman may be as close to a household word as any WCM musician since Leonard Bernstein. His use of crutches, a result of childhood polio, is clearly no impediment to his playing. The only accommodations he requires to perform are that his accompanist or conductor carry his instrument to the stage and that he play seated. **xxiii* It has been said that his disability has "forced the issue of accessibility to many stages and halls, a major benefit to others following in his footsteps." Perlman's illustrious career has combined classical, crossover, and klezmer, and his public persona now only occasionally focuses on his disability. As likely to be portrayed as Israeli, Jew, serious eater, family man, or regular guy with a good sense of humor, he may be to WCM and disability what Bill Cosby is to television and race.

German baritone Thomas Quasthoff, whose mother took the drug thalidomide during pregnancy, is short-statured with his arms disproportionately much shorter and limited in function. His introduction to American audiences on the television news program 60 Minutes focused on his disability. His condition remains a major topic of coverage. While his impairment has even less effect on his performance than Perlman's, with no instrument to carry (he, too, performs seated), his disability has profoundly affected his training and career.

Quasthoff endured significant discrimination in the course of his education and artistic development. He was initially placed in special schools wholly inappropriate to his exceptional intellectual gifts and subsequently refused admission to a German conservatory, ostensibly because his disability prevented him from learning piano, a ruling he describes as legal but of questionable morality. At forty, his professional activities comprised recitals, appearances with orchestra, recordings, and teaching. Prior to achieving first-rank status, appearing in the best venues, with the finest orchestras under leading conductors, unlike his able-bodied peers, he had never been engaged to sing staged opera. Currently, he is preparing his first staged roles, beginning in 2003, in *Fidelio*, *Tristan und Isolde*, and *Parsifal*.

Quasthoff's first invitation to perform staged opera, from "well-intentioned" conductor Daniel Barenboim, was the role of *Rigoletto*, a deformed dwarf. While Quasthoff declined this offer on purely vocal grounds, sometimes citing a still-developing vocal maturity, sometimes an inappropriate, too high, tessitura, the latter was termed "bullshit" by Quasthoff's accompanist Justus Zeyen, evidence that his refusal to be typecast is the real issue, as it has long been for African-American singers not wanting to be limited to *Otello* and *Porgy and Bess*. Despite opera's history of generously suspending disbelief to accommodate fine singers who do not at all look their parts by virtue of age, weight, race, or sex, a line seemed to be have been indelibly drawn at disability until Quasthoff's recent ascendancy to stardom. The barriers will likely long endure for singers with disabilities with anything less than Quasthoff's stellar gift.

Similarly, popular tenor Andrea Bocelli, totally blind, has only rarely sung staged opera, never in a major house, and to less than glowing reviews. Some claim his vocal limitations, not his disability, are the reason, although press coverage indicates his blindness is indeed a concern, no matter how well he negotiates stage movement. Among the harshest critics of his singing is none other than Thomas Quasthoff.xl

Virtually all press coverage of both singers discusses their disabilities with far greater frequency than with Perlman whose career and personal life are by now familiar. One reason for foregrounding Bocelli's and Quasthoff's disabilities may be that as singers their (impaired)

bodies *are* their instruments. Because of the importance of opera to singers' careers--my earlier observations about suspension of disbelief notwithstanding--at a very fundamental level, physical appearance is still bound to be more important than for an instrumentalist (at least for men), insofar as they are expected to look "good," which in a disabling culture means without noticeable impairment. xli

For WCM female musicians, physical appearance is of great importance, regardless of performing medium. Much evidence supports this; and it is consistent with the values of the culture at large. One need only look to the protocols of concert attire.

With minimal variation, men, as soloists or in ensemble, appear in formal wear that is in essence a uniform. By contrast, women, particularly soloists and recitalists, are required to select from a much greater range of possibilities what fashion/sexual statement they make. It may appear that women in WCM have greater freedom to determine their sexual personae than men, but this obligation is time-consuming, expensive, and bears little relationship to the development of one's art other than distracting and detracting from it.

The epitome of this double standard may be witnessed, surprisingly, not among vocalists, but among female concert violinists. Press coverage of renowned violinist Ann-Sophie Mutter has long been replete with references to her trademark strapless evening gowns. She has always denied exploiting her much-admired good looks and claims she always performs in décolletage for purely musical reasons: either because she likes the violin on her skin^{xlii} or because it helps her bowing. Nude photos of Mutter – doubtless digital fakes – appear on pornographic websites.

Mutter's competition includes Lara St. John (who posed nude, covered only by her violin, on her self-produced, big-selling Bach CD), xliv Linda Brava (who appeared nude in *Playboy* magazine's April 1998 *Sex and Music* issue), and crossover specialists Vanessa Mae (who has performed Bach in a wet t-shirt) and Bond, an all-female string quartet notorious for a nude group photo. In other media, the all-women's early music choir Mediaeval Baebes have released *Songs of the Flesh*, an album of photo erotica. The *Times of London* even reports an orchestra conductor who insists that the women of his ensemble "not wear underwear because it spoilt the line of their dresses." Editorials justifying this sexual exploitation as means to the noble goal of drawing audiences to the classics are not uncommon. In this very competitive field, women must vie for attention musically *and* sexually.

Even minus such obvious manifestations, sexualizing women performers in WCM is a given, in stark contrast to the super culture's stereotyping of PWDs, particularly women, as asexual, undesirable, and un-desiring. This, of course, has much to do with body image. It is the appearance of disability which is thought to undermine desire.

The greater emphasis on women's appearance in WCM is borne out in that the only first-rank female soloist with a disability is Scottish percussionist Evelyn Glennie, who is deaf. **Iviii* Much could be said of Glennie as a PWD and of her manipulation of her image as a deaf person. Here, it suffices to note that her disability is invisible and requires little obvious accommodation. **She is well-known for performing barefoot to enable her to better sense sonic vibration, although, unlike Mutter, there is no reason to doubt her sincerity regarding the rationale for her pedal exposure--overtly sexual only for foot fetishists. Playing shoeless, easily within the bounds of an acceptable female fashion statement, would seem far more peculiar for a formally attired man. Significantly, the "Photo Gallery" section of *The Official Evelyn Glennie Website* includes only passive photos, none in which she is performing (although some include some interesting-looking instruments). In the third property is a property of the property of t

Alice G. Brandfonbrener, M. D., performing arts medicine specialist and editor of the journal *Medical Problems of Performing Artists*, reports two female patients who are exceptionally gifted musicians, a vocalist with cerebral palsy (whom she calls "beautiful") and a violinist with an amputated leg, visibly obvious impairments that have seriously disabled their careers. Absent even one visibly impaired female soloist or conductor among WCM's top ranks, it appears that, as elsewhere, a woman's personal appearance counts for far more than a man's. Iti

(The violinist to whom Brandfonbrener refers is almost certainly her fellow Chicagoan Rachel Barton, who is enjoying a good, if not stellar, performing and recording career. Barton is unique in several ways. Fairly well established in her career while still able-bodied, the way she acquired her impairment – an accident involving a Metra/Union Pacific train, liii which resulted in a controversial \$30 million dollar settlement -- contributed considerably to her notoriety, perhaps more in the worlds of personal injury law^{lv} and train transport^{lvi} than in music. Thus, her disability has actually made news. Despite this, much of her press coverage ignores her disability and focuses on both her virtuosity and her interesting, widely respected crossover work, violin versions of heavy metal repertoire. Her disability is obviously more visible than Glennie's; she has used a wheelchair in performance at times. In concert and in publicity photos, she favors conventional long dresses. Once praised for being "no pushover in interviews, keeping to the subjects she wants to cover and politely but firmly declining others," she distanced herself from the soft porn exhibitionism of some of her colleagues and no mention was made of her disability. Ivii Barton is occasionally active in disability causes, although one, Jerry Lewis's Muscular Dystrophy Association Telethon, lyiii is widely despised by disability rights activists as condescending in its solicitation of pity. Obvious comparisons to Itzhak Perlman may conceal a commonality that is perhaps less apparent; that Barton denies/conceals neither her disability nor its irrelevance to her art.)

Beyond establishing the disabling nature of WCM musicking, determining precisely how, when, or where disabling occurs would require a database that does not yet exist. The very nature of WCM musicking as it is currently structured is disabling. Barriers to inclusion are sometimes harsh, arbitrary, and contrary to the spirit of reasonable accommodation and inclusion, as in the case of Thomas Quasthoff. Given the formidable abilities of Quasthoff, Perlman, and other WCM musicians with disabilities, and the outstanding contributions of PWDs in more accommodating musicking traditions, lix the fear of what might be lost through inclusion could and should be allayed by understanding how much human potential goes untapped through oppressive and exclusive standards.

The disabling of (potential) WCM musicians is principally a reflection of societal norms and only partly a result of their amplification. The rate of unemployment among PWDs throughout the labor force vastly exceeds that of any other group. Seventy-four and six-tenths percent of PWDs are unemployed nationwide in 1999, according to the U.S. Census Bureau. The high level of on-the-job performance of PWDs who obtain employment indicates that fear of inclusion is entirely unfounded and thoroughly wasteful. Disabled workers "have a better work ethic, are more flexible in their working hours, take less sick days, and stay longer at their jobs." According to a 30-year Du Pont study, "The disabled had a 90% above-average job performance, with safety and attendance records far above the norm." In an endeavor such as WCM, participation in which is regarded as a "talent" resulting from exclusion of PWDs appears even greater, with even extracurricular participation apparently discouraged from childhood.

Canon Formation: Technology, Notation and Recording

While Western cultures are neither alone nor perhaps even exceptional in their oppression of the impaired, laiv the disabling nature of WCM is unique. While it is beyond the purview of this study to locate the typical moment of dissuasion from WCM participation in the lives of PWDs, it is easy to identify moments in music history that have contributed to WCM's disabling character.

WCM's long reliance on sophisticated notation—"music" is often referenced as neither activity nor even sound but as ink on paper – creates difficulties for people with low/no vision who elsewhere might pursue musical vocations. This is an unintended if awful consequence, as notation's value for documentation and performance, especially by large ensembles, is indisputable. Still, the influence of complex notation on the ontology of WCM musicking and the development of musical values – aesthetic and otherwise – contributes to a system that disables with impunity.

The core of WCM's absolute commitment to intricate, fastidious notation is canon formation. This does not imply that other musics lack canons, evidenced even on radio stations that feature "classic rock" and even "alternative classics" (from the 1980s and 90s). Rather, the particular "what" and "how" of WCM canonization is uniquely – and literally – dehumanizing; thus intolerant of the "only human" condition of impairment.

Canons are everywhere, some might argue necessary. What may distinguish musical canons from others is the difficulty of defining, perhaps locating, "music." While "music" often references paper-and-ink attempts to store sonic intent in notated form, it is regarded elsewhere as action rather than object; hence Christopher Small's "musicking." Even were one to accept, as some influential people do, the premise that the only musical canon is comprised of the works of the "great composers" of WCM, the task would remain to determine what precisely is canonized: scores, actual performances, imagined performances, the composer's ideal performances? The problem is manifest in the negotiability of even the most detailed musical notation, either inadequate – even the most recent scores usually say little or nothing about endless variations of timbre and vibrato – or like earlier scores – whose intentionally sketchy dynamics and tempi mandate interpretation. Even the most highly nuanced works of Boulez, with effusively serialized dynamics and articulations, in all matters other than pitch (for the most part) and instrumentation (with only minor exceptions), demand interpretation rather than compliance.

While the roots of canon formation in WCM are often located in the nineteenth century, and especially Felix Mendelssohn's Bach revival, the canonic impulse appear to have preceded even the invention of staff notation. There have been several earlier moments when this preservationist tendency has tellingly surfaced. The first was the standardization of chant repertoire by the Catholic church, retained consistently at least in monastic – if not always also in public – performance since its inception. Smaller canonizations – that is, perpetuations of certain works as repertoire – occurred with the sacred compositions of Palestrina and Handel's *Messiah*. It should be no surprise that early canonizations were of sacred music. The canonic process in WCM (and elsewhere) is, in spirit if not always in nature, sacramental. Ixvi

Despite or irrespective of philosophizing as to what precisely constitutes a work of WCM, there is no doubt the "great composers" and their works are referenced in reverent terms. That realizations of their works must cleave to "composer's intentions" is a veritable *idee fixe*, this is so no matter how impossible a composer's thinking may be to ascertain, how variable are performances for which such authenticity is claimed, or how entirely reasonable/desirable it

would be to sanction such interpretation, as is expected, valued, and necessary in theatre and dance. These notations and performance traditions, with much larger interpretive roles for directors than music affords conductors, routinely mandate more forthright creativity than WCM currently allows. lxviii

Canon propagation that discourages interpretation--that is, difference--both drives and is driven by technology. While the religious nature of WCM canonization and the technology that makes canonization possible may appeal to different temperaments, they are united, both as expressions of the desire to transcend normal human limits and as powers beyond normal human understanding. This melding of religion and technology has been both disabling and impairing.

Propagation of the WCM canon has relied on the technologies of notation, then printing and later also recording. Whatever effect these have had upon other musics, they have enabled and amplified WCM's preservationist impulse. I have often heard it argued that the desire for novelty long satisfied by hearing new works in live performance (or learning them oneself, often at that wonder of Industrial Revolution technology, the piano), is now largely sated with new recordings of old works, especially those that are technologically innovative. Thus, science has helped transform Western art music into Western Classical Music, a museum, less than a living culture.

Printing enables the creation of definitive, sanctioned versions of compositions. This occurs only in the context of the preservationist impulse that had inspired the development of staff notation centuries earlier. Definitive WCM scores insist that certain notes--all of them and no others--be performed in certain rhythms and expressive nuances. (Other musics such as jazz use notation very differently.) The impact upon (potential) musicians with impairments can be exclusion. Unless one can perform precisely "the notes," one should not perform at all.

The difficulties for vision-impaired musicians were addressed earlier. For some mobility-impaired musicians, virtually the entire repertoire becomes inaccessible. The handful of commissioned piano works for left-hand only (the most important written for World War I-wounded Paul Wittgenstein) are exceptions that prove the rule.

Because the interpretive latitudes of jazz are far greater – notes are chosen and arranged with abandon – players with impaired hands like guitarist Django Reinhardt and pianist Horace Parlan have flourished by developing highly personal approaches to the entire repertoire. The difference between WCM's miniscule corpus of one-hand piano works^{lxix} and jazz's adaptability for PWDs throughout its repertoire is that of an individualized (and quite limited) accommodation versus a splendidly effective Universal Design.

Technology, for both recording and dissemination, has had a major impact upon what and how music is made. Lequipment has much to say about instruments used and duration of performances. Works have been re-orchestrated minus troublesome instruments like snare drums; performances of ragas, customarily lengthy, were limited to the duration of a cylinder or 78 rpm disk.

When recordings actually chronicled unedited performances, as predominated through the early 1960s, inevitable errors were tolerated and highly individualized interpretation flourished. The Romantic tradition in WCM performance – the individuality, if not always the nineteenth century mannerisms – persisted as long as technology could not challenge it. As sound editing grew more sophisticated, synthetic, technically perfect "performances" became possible. An aesthetic that values perfection above all became the norm, not only in recordings, where flawlessness is the editor's responsibility, but also, under the influence of recordings – the predominant mode of reception – in live performance. This places literally superhuman demands

upon performers, lxxi challenged, like John Henry, to perform like machines.

Where once the technical abilities of live performers dictated protocols of recording, the situation is now reversed. WCM (and some other) performers are now required to sound as much like digitally-edited recordings as possible. The ascendance of technology-as-aesthetic is also manifested in sports with performance-enhancing drugs and in femininity with cosmetic surgery. A *zeitgeist*'s impact may not be provable, but dissuading "flawed" PWDs from WCM performance, particularly in ensembles like orchestras whose protocols evoke bodily perfection, is consistent with trends in other endeavors.

Playing (and Writing) Hurt: Injuries and Indictments

It is hardly surprising that pressure to perform flawlessly has led to numerous injuries. A dedicated musician in any genre might overdo. Drummer Max Weinberg, formerly of Bruce Springsteen's E Street Band, now bandleader on *Late Night with Conan O'Brien* is a famous non-WCM case. But there is evidence the demands of WCM make for a far greater likelihood of repetitive motion and other injuries than other musics. The majority of orchestral musicians in the United States and internationally laxy have performance-induced upper-limb disorders. Numbers are high for other WCM musicians as well. Twenty-nine percent of the Music Teachers National Association (6380 teachers, amateurs, and students) also have these disorders. While percentages vary by instrument, most injured musicians are women.

According to performing arts medicine consultant (and Minnesota Orchestra Associate Principal Cellist) Janet Horvath, length of season, number of services, and extensive repeated figuration in orchestral literature make for the preponderance of injuries among symphony musicians. Technical difficulties of WCM are addressed generically too. For example, by "violin" or "soprano," and rarely tailored to/by specific performer's idiosyncrasies, as is often the case in jazz and other musics whose texts are less set and whose performers are more autonomous than WCM's. The Western canon is rarely negotiable: one plays what is on the page. Some minimalist scores are so repetitive that, even sans extensive practice of difficult passages, rehearsal and performance may be painful and injurious. lxxix

The walking wounded of WCM are generally not "disabled" per the Americans with Disabilities Act of 1990. laxx Injuries may heal with proper care (including rest) and may not inhibit the ADA's "major life activities" that are not construed to include virtuosic performance, even if it is one's livelihood. Still, damage from overuse can be excruciatingly painful and devastate a career for which a musician has trained a lifetime. Repetitive stress injuries have seriously curtailed the performance activities of well-known pianists Leon Fleischer and Gary Graffman. WCM can be a very rough kind of play.

WCM disables people by discouraging the musical participation of people with impairments such as blindness/low vision for whom other musics provide opportunities. It transforms at least one common physical condition, left-handedness, from a normal variation into an impairment. Available data indicates that WCM impairs its practitioners through overuse to a greater degree than all other musics combined. laxxiii

It would be unfair not to disclose that a personal standpoint has fueled my obvious discontents with this civilization. Adding DS/disability rights to my repertoire of causes is motivated by my own condition laxxiii and long, arduous struggle for accommodation against "the system."

Willingness to "indict" is a typical and distinctive feature of ethnographies of WCM.

Indeed, reviewing Kingsbury's *Music, Talent, and Performance*: *A Conservatory System*, ^{lxxxiv} Ellen Koskoff asked, "How I would have felt had this book been written about some other more 'exotic' natives and not about 'my kind.' Would I have accepted this picture as 'the way it is there' (not knowing much about the place)? Or, would I be screaming bias?"

While Koskoff's questions are reasonable and necessary (Kingsbury can be nasty!), the answers are perhaps more complex than one might at first imagine. We need to know more about the standpoints of many/most authors. We probably don't scream bias anywhere near often enough. The ethnomusicologists who investigate WCM are more forthright about their standpoints than most. Bias cannot be addressed by elimination – impossible – only by revelation. Further, in the case of WCM systems such as conservatories, orchestras, and universities, these are complex cultures with intricate networks of power relations, and their own forms of otherness and oppression. The others and the oppressed are often those Nettl has identified as working in the margins of the curriculum, including ethnomusicologists. They also include the (literally) wounded. In that context, I offer a hearty *mea culpa* to the charge of bias, while simultaneously asserting that the conclusions reached here are based on a substantial foundation that includes, but is hardly limited to, participant observation.

Conclusion: Untapped Potentials

More important than any particular findings, an ethnomusicology of disability provides a provocative framework for investigating constructions of difference. The projects include representations of disability in musical fictions, for example, the near ubiquitousness of disabled subjects in recent films about WCM. Besides asking, "Why are these films so made?" critical questions include, "Is disability plot-central or incidental?" and "Is – and of what – is disability symbolic?"

Another potential investigation would be disability acceptance in relation to race and class. WCM has always been associated with social prestige and economic power, especially of its patrons. Its meta-narratives of immortality (of its canon) and (technical and formal) perfection readily conflate with able bodies. Several American musics with strong proletarian and minority affinities – and frequent lyric references to disabling occupations and other potentially injurious habits – have significant representation of PWDs among their most prominent performers. lxxxviii

For a model of musicking in spite of mobility impairments, one may look to soul music immortal Curtis Mayfield who, in spite of a freak stage accident which left him quadriplegic, was able, though with great difficulty, to continue composing, singing and recording and to engage in disability rights activism. His final album, *New World Order* (1996), for which the artist required a special harness to aid his singing, was a critical success.

Elsewhere, certain instruments – thus occupations – including koto and biwa^{xc} in Japan and bandura in Ukraine have been strongly associated with/reserved for PWDs, some of whom formed powerful guilds.^{xci} These successes provide important insights into alternative constructions of disability, some from distant times and places.

Ultimately, all the blues in the key of high theory offered as chronicles of oppression in DS and other area studies are worth little if they are not calls to action. It is good to remember the last words of labor leader Joe Hill: 'Don't mourn; organize!'

I have long thought WCM, nearly unique in its privileging of composition as distinct from performance (despite many of its best composers also being virtuosi), could lead the way to

redefining what it means to be a musician by championing adaptive technology as a means of enabling people with severely impaired bodies to transcend physical limitations and allow their sonic imaginations to soar unencumbered. This hasn't happened. While it may not be possible to causally attribute this lack of outreach to WCM's demonstrated abhorrence of "flaws" in its music and musicians, there is an unfortunate consistency of values evident.

There is also a powerful alternative model in the Vancouver Adapted Music Society. **cii Founded by two musicians who became quadriplegic through accidents – one of them Sam Sullivan, a Vancouver City Councilman and Executive Director of five disability non-profits, including VAMS***ciii-- the organization maintains recreational and professional studios, supports recording and performance projects, offers classes, workshops, private lessons and outreach, supports the band Spinal Chord, and has commissioned digital technologies that have enabled people with complex impairments to realize their creative potentials .**Civ** One such innovation is a "mini-modem-midi device [that] was perfected so that musicians who are immobile can now musically communicate with other musicians in real time from city to city over a telephone link to the digital technology.** Although the emphasis of its programs appears to be popular music (classes in "songwriting" are offered), as *musicking*, VAMS is something remarkably new.

The device described here is an example of Universal Design *par excellence*, whose broad application within and beyond the disability community is readily apparent. The initiative behind this remarkable invention (the creation of Vancouver-based non-disabled musician/technicians Bob Turner and Jeff Koftinoff) and VAMS itself was the self-determination of PWDs.

The impact of recent technologies upon WCM is not entirely negative. Fidelity and durability of recordings has improved. Captioning devices invest vocal performances with heightened meaning. Composers have new resources for sound synthesis and desktop publication. Still, pressure to perform flawlessly, for which digital editing has surely been a major influence, has had much to do with the current pandemic of performance injuries. Mania for technical perfection is coupled with the ossification of the WCM canon. The recording industry – which has shifted audience interest from new repertoire to new format and packaging – is in great degree responsible. This has contributed to a culture of bored denial that resorts at times to the exploitation of nubile, (semi-)nude women performers, some whose lack of outstanding musical acumen is unlikely even to be noticed. It is hardly surprising a radically democratizing, technology-driven, concept such as adapted music originated in another genre. **Cvvi**

Ethnomusicology needs Disability Studies. Like music, disability is a universal human experience. It requires investigation not only as an inherently important and multivalent praxis but as a valuable window into both socialization and technology. Few if any human variants can tell us as much about ontologies of difference and equity. Much can be revealed about a musical system through observing both the status of PWDs within it and their self-determined strategies and tactics for inclusion.

ALEX LUBET, Ph.D., has published articles in journals of music, theatre, history, law, and medicine, and has also served as a visiting scholar at the Institute of Medical Humanities at the University of Texas-Medical Branch. He has strong interests in music, American, Jewish and popular cultures especially when they pertain to disability issues. His articles for the forthcoming *Sage Encyclopedia of Disability* are on music, Judaism and biomedical ethics – euthanasia and physician-assisted suicide.

Correspondence regarding this manuscript should be sent to 100 Ferguson Hall, 2106 4th St. S, Minneapolis, MN 55455, 612 624-7840 (work), 651 699-1097 (home), 612 624-8001 (FAX), lubet001@umn.edu.

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Endnotes

DS and Deaf Culture points of view regarding disability and deafness can differ significantly, though this is not always apparent in DS scholarship. See Mairian Corker, "Deaf Studies and Disability Studies: An Epistemic Con undrum," *Disability Studies Quarterly* 20(1) (2000): 2-10. Given that the social model that distinguishes between disability and impairment is not common parlance, where the terms are more or less synonymous, Deaf people unfamiliar with the social model are likely to reject the label "disabled," while acknowledging the complexities and challenges of life in a predominantly hearing world.

vi In print, the capitalized Deaf refers to the culture, the lower-case deaf to the auditory state. While these terms are spoken homonyms, they are different symbols in British Sign Language, which British scholar Mairian Corker discusses in "New Disability Discourse, the Principle of Optimization and Social Change," in *Disability Discourse* (Buckingham, UK: Open University Press, 1999): 200. The distinction occurs but rarely in American Sign Language, whose sign for Deaf, a variant on "deaf," is not well-known.

vii When I taught in Poland in 1999, I was surprised at the frequency with which television personalities, female and male, wore glasses. By contrast, when I showed a class a video of my ensemble, Blended Cultures Orchestra, there was a large collective expression of shock that our vocalist was a woman of substantial girth. Upon learning later that one of Poland's leading jazz singers was also a large woman, I was informed that she "got away with it" by means of self-deprecation.

viii The gerund form of "to music" that grounds music as activity rather than object, as used by Christopher Small in *Musicking: The Meanings of Performing and Listening* (Hanover, NH: Wesleyan University Press, 1998)

ⁱ See for example Mairian Corker and Sally French, eds., *Disability Discourse* (Buckingham: Open University Press, 1999), xi.

ⁱⁱ The distinction between disability and impairment so critical to the social model of disability within DS is not common parlance, where disability and impairment are interchangeable terms. The reader is cautioned here that, in disability studies, disability and impairment are a distinction with a significant difference and that I use the two terms accordingly throughout this article.

Thus, disability studies, grounded in the liberal arts, is neither medicine, rehabilitation, special education, physical, occupational, nor any other therapy. Not all practitioners of these professions are necessarily hostile to DS. Notably, the Department of Human Development and Disability at the University of Illinois-Chicago, arguably the nation's leading program, is affiliated with that school's departments of physical and occupational therapy.

iv Nora Ellen Groce, Everyone Here Spoke Sign Language: Hereditary Deafness on Martha's Vineyard. (Cambridge: Harvard University Press, 1985).

Vingrid Hofmann, a Deaf Ph.D. student in the University of Minnesota's Institute of Child Development, is comfortable with this characterization of who belongs in Deaf Culture, but notes that Deaf identity is hotly contested by the Deaf, with significant reticence about the wholesale categorization of, for example, hearing people fluent in sign language, late-deafened people, and hard of hearing people, as members of the community. Hearing members of Deaf families who are fluent in ASL are generally more accepted than professional interpreters, whose commitment to the community may be questioned. Ms. Hofmann also notes that the term "hearing impaired," not uncommon in DS discourse, is scorned by the Deaf community, which does not regard its auditory state as an impairment. The term Hearing is also sometimes capitalized in Deaf discourse when proffering respect, lower case when no respect is intended.

ix I in no way exclude the eventuality that lessons of DS for ethnomusicology might apply to situations beyond disability and impairment. In particular, DS's use of medical, legal, and industrial relations sources--my own is a case in point--has broad implications.

^x Post-mortem psychological (and medical) autopsies of Mozart are common and varied. It is important to note here that it is the perception of an impairment rather than impairment per se that disables a subject, a distinction noted in the Americans with Disabilities Act of 1990, Public Law 101-336, 104 Stat. 328 42

U.S.C. 12101-12213 (ADA). A July 29, 2001 Internet search for "personality disorders" and "Mozart" yielded 139 hits.

For a remarkably well-documented psychobiological case history of Mozart that relies on contemporaneous sources, see Benjamin Simkin, "Was PANDAS Associated with Mozart's Personality Idiosyncrasies?" *Medical Problems of Performing Artists* 14 (3) (1999): 113-116. Although the film and play *Amadeus* make no attempt at explicit diagnosis – and impairments are generally rendered rather than named in disability-themed films – they certainly characterize Mozart as a person whose social and life skills are seriously compromised.

xi In the last two decades, most films about classical music have included prominent characters whose disabilities are central plot concerns. In fall 2001, I taught a course entitled *Beyond Silence: Classical Music, Disability, and Film.* Interestingly, the most honest renderings of disability tend to emerge from those films which make least claim upon a status of "non-fiction."

xii I have three degrees in composition and have been a professor of music for 23 years. Besides my appointment at the University of Minnesota, I have been a guest lecturer and visiting artist/scholar in Europe, Asia, South America, Canada and throughout the United States. Dr. Shiraishi has degrees in composition, arts administration, and music therapy, and is an accomplished performer, teacher, and composer of taiko. Earlier in her career, she managed Greater Twin Cities Youth Symphonies, the largest organization of its kind, and was House Manager for Hancher Auditorium, the large performance hall of the University of Iowa and that state's premier performance space. We attended universities in Illinois, Iowa, Hawaii, and Minnesota.

Ideally, data on student musicians with disabilities will employ a large sample from a wide variety of institutions. As a means for demonstrating theoretical principles, using one's "clients" has many precedents, particularly in medical research, including that done on music-related injuries. While physicians keep more comprehensive records of their patients than are presented here, in our experience the presence of any music student with a disability is remarkable enough that what little information needs to be drawn from recollection can be remembered.

xiii I exclude here the numerous musicians with performance injuries (a subject treated later in this article) and clinical depression, the former well-documented, the latter, at least in my experience, a quite common occupational hazard. Conversations with students and colleagues suggest depression is often situational and induced through the stresses of a music career. There is of course no way to determine the number of cases of invisible disabilities unless they are identified. Performance injuries in music frequently go unmentioned for fear of reprisals. Other than depression, self-identification of students' disabilities has rarely occurred in my experience, although the recent and welcome movement towards including "disability statements" in syllabuses is intended to encourage students to self-identify (confidentially) to their instructors when they seek accommodation. Neither performance injuries nor situational depression are typically regarded as impairments that qualify for accommodation under the ADA.

xiv This by no means implies there have been no distinguished blind classical musicians. Foremost of these include composer-organists Francesco Landini, Louis Vierne, and Jean Langlais, and Spanish composer-pianist Joaquin Rodrigo. Louis Braille, inventor of the tactile writing system which bears his name, was an accomplished organist. Special mention should be made of the African-American pianist-composer, 'Blind' Tom Bethune (1849-1908), whose remarkable life is chronicled by Geneva Southall in *Blind Tom: The Post-Civil War Enslavement of a Black Musical Genius* (Minneapolis: Challenge Productions, 1979), *The Continuing Enslavement of Blind Tom, the Black Pianist-Composer* (Minneapolis: Challenge Productions, 1983), and *Blind Tom, the Black Pianist Composer* (1849-1908): Continually Enslaved (Lanham: Scarecrow Press, 1999).

^{xv} The Americans with Disabilities Act of 1990 states that an accommodation must be "reasonable," a modifier whose interpretation, in my experience, all too often functions as an escape clause and whose implementation is all too often to deny needed services.

xvi For a history of technological advances that originated as assistive technology for PWDs, see Steve Jacobs, *Fueling the Creation of New Electronic Curbcuts* (The Center for an Accessible Society, n.d.). http://www.accessiblesociety.org/topics/technology/eleccurbcut.htm. Of special interest for music, Jacobs notes that the long-playing 33 1/3 rpm phonograph record was invented to assist the blind and the first acoustic sampling synthesizer keyboard, invented by Kurzweil, was inspired by a conversation he had with blind soul singer Stevie Wonder, who uses his Reading Machine.

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xvii N.d., *Universal Instructional Design: What is UID?* (University of Massachusetts, 2000) http://www.umass.edu/ldss/universalinstructional design.html.

- As the result of the including in my syllabus a request for PWDs to identify themselves to the instructor (confidentially), one student identified himself as learning-disabled, though he refused accommodation, citing prior difficulties with campus disability service providers and a desire to avoid repetition of that experience. Complaints of this nature are common.
- xix My daughter Alyssa Lubet is the source, though not the author (anonymous), of this witticism.
- xx I speak only for myself as a lefty here. The Internet reveals many southpaws who consider themselves more oppressed than I. If discourse alone were the criterion--what with "sinister," "left-handed compliment," "out in left field," "gauche" and "right-minded"--left-handedness would be among the worst fates a body could endure.
- often left-handed guitarists reverse the order of the strings, best accomplished with a reversed bridge and nut. Cutaways that allow easier access to the highest frets are also reversed, especially on electrics, where tone, volume, and pitch controls are also repositioned.
- xxii The recent theory of National Cancer Institute geneticist Dr. Amar J. S. Klar is persuasive. His research indicates a single gene for right-handedness in 80% of the population. The remaining 20% lack the gene and are evenly split, apparently by environmental factors, between right- and left-handed, accounting for the 10% of the world that is left-handed. See David E. Rosenbaum, "On Left-Handedness, Its Causes and Costs," *The New York Times on the Web* (May 16, 2000),

http://www.nytimes.com/learning/teachers/lessons/000516tuesday.html.

- My wife and I are left-handed parents of two right-handed children. As unusual as I thought this, according to I. C. McManus and M. P. Bryden, "The Genetics of Handedness, Cerebral Dominance and Lateralization," *Handbook of Neuropsychology, Volume 6: Developmental Neuropsychology*, I. Rapin & S. J. Segalowitz, eds. (Amsterdam: Elsevier Science, 1992): 115-144, left-handed parents have a 73.9% chance of producing a right-handed child, consistent, within an acceptable margin of error, with Klar's theory.
- xxiii I am indebted to my University of Minnesota colleague violinist Mark Bjork for this information. xxiv Not all left-handers are as tolerant of the right-handed majority as I, perhaps owing to their personal histories. See, for example, E. Stephen Mack, *Left-Hander: Living in the Mirror* (1995), http://www.emf.net/~estephen/facts/lefthand.html.
- xxv Bruno Nettl, *Heartland Excursions: Ethnomusicological Reflections on Schools of Music* (Urbana: University of Illinois Press, 1995).
- xxvi Henry Kingsbury, *Music, Talent, and Performance: A Conservatory Cultural System* (Philadelphia: Temple University Press, 2001).
- xxvii Christopher Small, *Musicking: The Meanings of Performing and Listening* (Hanover: Wesleyan University Press, 1998).
- xxviii My colleague Jeffrey Van, classical guitar instructor at the University of Minnesota for over three decades, has told me of numerous left-handed students, but no more than three who chose to play left-handed, an apparent difference from the worlds of vernacular music. As a lefty who plays right-handed, when presented with the opportunity as an undergraduate to study classical guitar, I chose not to, having decided after many years of playing steel strings, that I would never be able to master its formidable right hand technique.
- xxix Jeff Tod Titon, general ed., Worlds of Music, 3rd ed. (New York: Schirmer Books, 1996).
- xxx Elizabeth May, ed. Musics of Many Cultures (Berkeley: University of California Press, 1980).
- Ethnomusicology and of the bibliographies featured in each issue will indicate that white scholars tend to opt for ethnic difference in their selection of subjects, while scholars of color explore musics to which they can claim ethnic connection. I include as connected, for example, African-Americans who study Africa and the Caribbean, but would view as an "other" relation a WASP Balkan specialist, for whom I suspect cultural difference trumps similarity of skin pigment.
- xxxii Pun intended, Beatles' drummer Ringo Starr is also left-handed. While, unlike McCartney, his sinistrality had no effect on the stage layout of the band, Ringo has been quoted as saying it did contribute to his unique and in my opinion vastly underrated playing.
- xxxiii These accommodations are roughly analogous to disabled golfer Casey Martin's need for a cart. Martin's legal battle with the Professional Golfer's Association (PGA) over an interpretation of the

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Americans with Disabilities Act of 1990 required a Supreme Court decision. The court ruled in favor of Martin's right to use a cart, but public opinion remains greatly divided. Those who oppose Martin's right to use a cart claim walking the course is intrinsic to the sport. Given Perlman's total acceptance in WCM, it seems ascending the podium, violin in hand, is not. See PGA Tour, Inc. v. Martin (FindLaw: Laws - Cases, Codes and Regs: 2001),

http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=US&vol=000&invol=00-24#section1.

xxxiv Alice Brandfonbrener, "Artists with Disabilities," *Medical Problems of Performing Artists* 15 (2) (2000): 1-2.

Elizabeth Gleick and Paul Moor, "Triumph of the Spirit," *Time* 149 (26) (1997), http://www.time.com/time/magazine/1997/int/970630/amusi.triumph of th.html.

xxxvi Norman Lebrecht, "Thomas Quasthoff - A wonderfully vocal minority." "The Lebrecht Weekly," in La Scena Musicale. 18 October, 2000, http://www.musicweb.uk.net/lebrecht.html.

xxxvii Gleick and Moor.

xxxviii Janos Gereben, "Thomas Quasthoff confirms Opera plans," *GOpera.com* by Margo Briessinck (23 June, 2000), http://www.gopera.com/quasthoff/articles/opera on stage.html.

xxxix Ching Chang, "Verdi's *Ballo* Around the Bend," Rev., *San Francisco Classical Voice* (31 October, 1999), http://www.sfcv.org/arts_revs/ballo_11_2_99.html. Stryker, Mark. "Bocelli at MOT: An Uneven Debut," Rev., *Detroit Free Press* (30 October, 1999), http://altavista.com/cgi-bin/. Tommasini, Anthony. "Bocelli Seeks Legitimacy (And Bucks) In '*Bohême*," *The New York Times* (3 December, 2000): 29.

xli This may also explain why blind popular and jazz musicians generally wear dark glasses in public, while this is extremely uncommon among other blind people. Classical/crossover tenor Andrea Bocelli does not wear dark glasses.

xlii Dalya Alberge, "Cover Up, Conductor Tells Fat Fiddlers," *The Times* (London: August 23, 2000), pub6.ezboard.com/fressonance3general.showMessage?topicID=19.topic.

Richard Morrision, "So What Is the Bottom Line, Mr. Blobby?" *The Times* (London: August 23, 2000), pub6.ezboard.com/fressonance3general.showMessage?topicID=19.topic. It is impossible to take this statement seriously. Were there basis to it, there would long ago have been a revolution in concert attire for both women and men.

xliv In remarks akin to Mutter's, if even more far-fetched, St. John claimed her nude pose was not intended as sexual, only to show intimacy with the instrument; that nothing stood between her and her violin. John Marks, "Selling 'Jailbait' Bach," *U. S. News Online* (11 November, 1996),

http://www.usnews.com/usnews/issue/11musi.htm.

xlv Alberge.

xlvi James McQuillen, "Babes con Brio," Rev., Eroica Trio, Lewis & Clark College, *Willamette Week* (5 February, 1999), http://www.wweek.com/html/cultfeature021099.html. "Fortissimo & Louder: Super Chick Fiddler," Rev. of *Four Seasons* by Antonio Vivaldi, performed by Anne-Sophie Mutter, *Best Classical CD* (Volume IV, n. d.), www.bestclassicalcd.com/Archives/Volume 4/fort.html.

xlvii That this stereotype is far from true is borne out in the *National Study of Women with Physical Disabilities: Sexual Functioning* (Houston: Department of Physical Medicine and Rehabilitation, Center for Research on Women with Disabilities, Baylor College of Medicine, 1999), http://www.bcm.tmc.edu/crowd/national study/SEXFUNC.htm.

notion of deafness is challenged. She has been active in philanthropic activities that promote an invasive assistive technology, the cochlear implant, mostly virulently opposed by the Deaf community. She also offers scholarships in music to children the USA with hearing loss. The Deaf community regard themselves as an oppressed cultural minority, rather than as PWDs, a position that differs radically from Glennie's. An important field within Universal Design is Web Accessibility. In this regard, the Glennie site does not conform to industry standards. See *MIT Disability Resources: Universal Design and Web Accessibility*, http://web.mit.edu/ada/waccess.html. For "Bobby," the standard downloadable tool that tests the accessibility of web sites for PWDs, see *CAST Bobby* (Peabody, MA: Center for Applied Special Technology, 2001), www.cast.org/bobby/.

xlix Glennie obviously has enough useful residual hearing, that is, hearing that remains after the illness that caused her hearing loss, to perform extremely challenging percussion repertoire in recital and with

orchestra. She speech reads extremely well and speaks with perfect clarity, although enough of her hearing has been lost that she is, for example, unable to make full use of a standard telephone.

¹ The Official Evelyn Glennie Web Site.

li Alice Brandfonbrener, "MTNA Music Medicine Survey Part 2: The Teachers," American Music Teacher 39 (3) (1989-9): 20-3, 61. Alice Brandfonbrener, "Preliminary findings from the MTNA Music Medicine Survey," American Music Teacher 39 (1) (1989): 37-41.

lii Ibid.. I read Brandfonbrener's editorial only after completing the first draft of this article. It provides an analysis of the issue of WCM superstars with disabilities remarkably similar to mine, even choosing Perlman, Quasthoff, and Glennie as her three test cases. Interestingly, she directly contrasts Quasthoff, as disabled by his appearance (Brandfonbrener was at the time unaware that Quasthoff had finally been engaged to perform staged opera), to Glennie, who is not. She does not treat gender as an issue, though she provides important evidence for it.

liii Aaron M. Renn, Untitled, *The Weekly Breakdown 2 (4)* (1999),

http://www.urbanophile.com/breakdown/archive/vol2/wb2-04.html.

liv Emily Gottlieb, "Reading Between the Headlines - The Media and Jury Verdicts," Research, Volume 2 (The Center for Justice and Democracy, Minnesota Consumer Alliance: 2 January, 2001), http://www.mnconsumeralliance.org/mca research.htm.

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lvi Bentley (no first name given), "Commuter Crew Not At Fault, Railroad Official Testifies," Today's Headlines (International Brotherhood of Locomotive Engineers: 10 February, 1999), http://www.ble.org/pr/news/headline0210a.html.

Lawrence Johnson, "An Interview with Rachel Barton," Fanfare Magazine (September-October 1997): 1-5, http://www.rachelbarton.com/noframes/articles/art0997.htm.

Jim Brown, "First Worldwide Telethon Sets \$52 Million Pledge Record," MDA News (7 September 1998), http://www.mdusa.org/news/980906webcast.html.

lix It is difficult to imagine African-American popular music without Ray Charles or Stevie Wonder or jazz without Art Tatum or Rahsaan Roland Kirk. An Internet search for "+blues +blind -"blind pig" (blind pig is an important blues recording label) on July 9, 2001 (Google) yielded 799 "hits."

^{lx}Statistical Abstract of the United States: 2000, 120th edition (Washington, DC, U.S. Census Bureau: 2000): 415.

lxi Karen Gair, "Good for Business," SEEK jobs database and employment advice (2000), http://www.seek.com.au/editorial/0-8-7 disabilities.htm.

N.d., "Equal to the Task: 1981 Du Pont Survey of Employment of the Handicapped" (Wilmington: Du Pont, 1982). "Equal to the Task II: 1990 Du Pont Survey of Employment of the Handicapped" (Wilmington: Du Pont, 1991?). lxiii In the five years my wife, Dr. Iris Shiraishi, worked for/managed Greater Twin Cities Youth

Symphonies, which at the time had eight orchestras, elementary through high school, and was the largest organization of its kind, we observed only two students with disabilities. Both had mobility impairments affecting their arms. One of the eight conductors was a PWD, also mobility-impaired, one of only three professional classical musicians with physical (other than performance injuries) or sensory disabilities we have known personally.

lxiv For a perspective on disability in Chinese culture, see Emma Stone, "Modern Slogan, Ancient Script: Impairment and Disability in the Chinese Language," in Disability Discourse, Mairian Corker and Sally French, eds. (Buckingham: Open University Press): 136-147.

lxv Benjamin Boretz, "Nelson Goodman's Languages of Art from a Musical Point of View," in Perspectives on Contemporary Music Theory, ed. Boretz and Edward T. Cone (New York: W. W. Norton & Company, 1972): 31-44.

lxvi Carnatic (South Indian) classical music regards as (literally) a saint its greatest composer, Sri Tyagaraja, noting his profound devotion to Lord Rama as his musical inspiration. Nonetheless, his compositions, while revered, are not/cannot in practice (owing to less notational nuance and performance practice that encourages improvisation and interpretation) be objectively preserved in the manner of WCM.

lxvii Austrian theorist Heinrich Schenker and disciples like Edward Aldwell and Karl Schachter speak often and unabashedly of a group of almost entirely Germanic (Chopin and Scarlatti, the ethnic exceptions, are so noted by Schenker) eighteenth and nineteenth century composers as the "great composers"; that is, the ones

whose works conform to Schenker's theories. See, for example, Edward Aldwell and Carl Schachter, *Harmony and Voice Leading*, 2nd ed. (Fort Worth: Harcourt Brace Jovanovich, 1989).

Interestingly, some performers in the historical performance movement, among them forte pianist Malcom Bilson, have begun to add their own embellishments to performances of works from the Classical period, not in the interest of creativity per se, but because it is an authentic performance practice. American composer Alvin Singleton, whose connections to the jazz world are strong, is a notable exception.) Interestingly, some performers in the historical performance movement, among them forte pianist Malcom Bilson, have begun to add their own embellishments to performances of works from the Classical period, not in the interest of creativity per se, but because it is an authentic performance practice. Is a notable standard repertoire status for able-bodied as well as hand-impaired pianists. Noted American composer George Perle has recently written a left-hand work for Leon Fleisher. There are no standard works for right hand only, though pieces were composed for pianist Lionel Nowak. See Donald L Patterson, *One Handed: A Guide to Piano Music for One Hand.* (Westport, CT: Greenwood Press, 1999).

lxx Simon Frith, "The Industrialization of Music," in *Music for Pleasure* (New York: Routledge, 1988): 11-23.

lxxi I recall three telling anecdotes. The first was a Minnesota Public Radio interview in the early 1980s with conductor Sir Neville Marriner, then Music Director of the Minnesota Orchestra. He stated that he regarded his concerts as rehearsals for his (numerous) recordings and noted he eschewed certain types of rubato (rhythmic liberties) because of difficulties they created for the audio editor.

The second anecdote concerns a PBS documentary on the 1990 Tchaikowsky Competition in piano. A mandatory work in the preliminaries was Prelude and Fugue in D minor from Book Two of J. S. Bach's *Well-Tempered Clavier*. The video showed segments of about ten different performances of the fugue by an equal number of pianists, spliced together to form a single "performance." As different as the artists looked (I suspect this was the point), the technically flawless performances were so remarkably similar as to sound like a seamless, though not particularly interesting, whole.

Finally, I note my first digitally edited recording, in 1997, of my 1980 piano work, *Shabbat Shalom*. This 13-minute recording consists of over 100 digital "splices." While a wonderful rendition, pianist Jeffrey Jacob has never before or since played the entire work without pause, from beginning to end; that is, he has never "performed" it, even privately. While it is reasonable to record WCM this way, since that session, I have pondered the proper role of digital editing in improvised music, a question that inhibits my willingness to record that facet of my *ouevre*.

lxxii L. Tabor, "Rock Drummer Max Weinberg's battle with Hand Injuries," *International Musician* 85 (11) (1987): 7, 28-29. Max Weinberg, "Back to practicing and playing after tendonitis," *Journal of Hand Therapy*, 5, (1992): 120.

The exception is hearing loss, often (and hardly surprisingly) reported by/about rock musicians (and their audiences). See Kris Chesky and Miriam Henoch, "Instrument-Specific Reports of Hearing Loss: Differences between Classical and Nonclassical Musicians," *Medical Problems of Performing Artists* 15 (1) (2000): 35-38.

Ixxiv M. Fishbein, S. E. Middlestadt, V. Ottai, S. Straus & A. Ellis, "Medical Problems Among ICSOM Musicians: Overview of a National Survey," *Medical Problems of Performing Artists* 3 (1) (1988): 1-8. Ixxiv Ian James," Survey of Orchestras," in *Medical Problems of the Orchestra Musician*, Raoul Tubiana and Peter C. Amadio, eds. (London: Martin Dunitz, 2000): 195-202.

lxxvi Similarly, Yeung *et al.* report a 64% incidence of playing-related musculoskeletal problems among professional orchestral musicians in Hong Kong. Ella Yeung, Winnie Chan, Florence Pan, Phoebe Sau, Maggie Tsui, Belinda Yu, and Christine Zaza, "A Survey of Playing-related Musculoskeletal Problems Among Professional Orchestral Musicians in Hong Kong," *Medical Problems of Performing Artists* 14 (1) (1999): 43-46.

lxxvii Brandfonbrener, 1988-89 and 1989.

lxxviii Raoul Tubiana, "Upper Limb Disorders in Musicians," *Maitrise Orthopedique* 100 (2001), www.maitrise-orthop.com/corpusmaitri/orthopaedic/mo69_limb_disorders/index.shtml. See also William Dawson, "Upper Extremity Overuse in Instrumentalists," *Medical Problems of Performing Artists* 16 (2)

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(2001): 66-70, for a statistically rich examination of the author's own musician patients. Additional, if less clinical, evidence that the majority of performance-injured musicians are from WCM includes a review of the performing arts medical and related scholarly literature (in music, rather than medical, publications) and popular, self-help books and periodicals. My examination of bibliographic sources indicates the vast majority of publications directed to musicians in a particular genre are for WCM. Notably, the four Playing (Less) Hurt conferences dealing with performance injuries, held in the late 1980s and early 1990s and coordinated by Janet Horvath, Associate Principal Cellist, Minnesota Orchestra, and performing arts medicine consultant, were overwhelmingly attended by WCM musicians.

lxxix Many years ago, I was involved in rehearsals for the premiere of one of my compositions which, while not literally repetitious, involved many similar figurations. At the same time, the players, from a major orchestra, were rehearsing a work by a prominent "Minimalist" composer. There were numerous complaints about how painful it was to play his piece, especially late in the season. In that context, they declared my piece "impossible," likening it to the orchestra piece to whose performance they objected. In part, as a result of the negative reaction of the orchestra to playing this work, the music director (and the orchestra's marketing staff) openly retreated from the adventurous, largely contemporary programming of his first season.

The ensemble refused to play my piece and I was forced to reschedule my premiere and an entire evening of my work. Later, I engaged different players from another major orchestra during a summer hiatus. There was no suggestion my work was even particularly difficult, let alone impossible, and no mention of pain. The piece has enjoyed many successful performances since. ^{lxxx} Americans with Disabilities Act of 1990.

lxxxi Because repetitive motion injuries are extremely common among the industrial labor force as well, it may be that economics are a reason their status as disabilities is so fiercely resisted.

lxxxii It is possible that musics other than WCM have underreported data on performance injuries. Certain categories of WCM musicians, such as those in major symphony orchestras, are among the best-paid and may have superior access to medical care. As previously stated, WCM musicians are also by far the most studied category in the performing arts medical literature.

lxxxiii Although it may seem an unfair provocation not to discuss the precise nature of my impairment/disability here--having disclosed that it exists-- one of the protocols of DS is that claiming a disability identity is a public social/political statement. One's particular impairment is anatomical, intimate, and thus private, unless it is critical to one's argument. It is not here, nor are the details of my battles with human service bureaucracies. For a comprehensive exploration of the politics of this and related discursive and disclosure matters, see Simi Linton, Claiming Disability: Knowledge and Identity (New York: New York University Press, 1998).

This "need to know" basis for determining whether to disclose highly personal anatomical matters is mirrored in the transgender community, whose lives make perhaps the most powerful case for a distinction between gender and sex.

Ellen Koskoff, rev. of "Music, Talent, and Performance," by Henry Kingsbury. Ethnomusicology 34 (2) (1990): 314.

The Australian Lawlink has published an excellent exeges of legal constructions of difference and discrimination in which disability is considered at length and the perspective is international. Report 92 (1999), "Review of the Anti-Discrimination Act 1977 (NSW)," Lawlink NSW, 3, http://www.lawlink.nsw.gov.au/lrc.nsf/pages/r92chp.

lxxxvi Including Amadeus, Immortal Beloved, Shine, Hillary and Jackie, The Red Violin, Mr. Holland's Opus, Beyond Silence, The Piano, and Thirty-Two Short Films About Glenn Gould.

lxxxvii In jazz, Art Tatum, Rahsaan Roland Kirk, Marcus Roberts, Django Reinhardt, George Shearing, Lenny Tristano, Horace Parlan, Wingy Manone, Diane Schuur, Michel Petrucciani, Louis Armstrong, Quincy Jones, and Charles Mingus (the latter three only late in their careers). In African-American popular music, Stevie Wonder, Ray Charles, and, late in their careers Teddy Pendergast, and Curtis Mayfield. In blues, Lemon Jefferson, Sonny Terry, Willie McTell, Gary Davis, and numerous others. In country and Southern folk music, Mel Tillis, Vic Chesnutt, and Doc Watson. In Latin pop, Jose Feliciano.

lxxxviii N.A., "Excite Music: Curtis Mayfield Biography," At Home Corporation (2001):

http://music.excite.com/artist/biography/15625.

lxxxix N.A., University of Georgia Columns, "Diversity Conference Planned," (19 May 1997): http://www.uga.edu/column/051997/digest.html.

xc See M. Miles, "Blind People Handling Their Own Fate," except from "Disability on a Different Model: Glimpses of an Asian Heritage," originally appearing in *Disability and Society* 15 (2000): 603-618, http://www.independent living.org/LibArt/mmiles1.html. Miles writes of blind Japanese lutenists, by which he refers to the biwa, but not koto, which is a plucked zither, and not only to Japan, but also, to a lesser extent, China. In this article, he investigates a range of occupations through which the blind in these countries have at times maintained considerable autonomy and even power.

xci Ibid.: 1.

xcii VAMS Homepage, http://www.reachdisability.org/vams/vams_homepage.htm.

N.A., *Rehabilitation Management 2001 - Accommodation the Right Fit*, conference announcement, (27-28 April 2001) (Vancouver, Canada: Simon Fraser University, 2001): 2.

www.jdkoftinoff.com/gaz1.html. N.A., "Bob Turner: Partnerships in Progress" (n.d.), http://www.turnercom.com/primal/turbio.html.

xcvi It would be unfair and dishonest to ignore music therapy programs, most of which are located in conventional, WCM-based schools of music. Still, these entail a radically different curriculum from all other majors, occupy a similarly marginal position to ethnomusicology and jazz, and arguably privilege art musics in general and WCM in particular far less (if at all) than other courses of musical study in higher education. Music therapists often work with clients with disabilities and who sometimes use adaptive technologies. VAMS includes therapy as one of its stated objectives. An important distinction is that music therapy applies music to extra-musical, often didactic, ends, while VAMS and other organizations of musicians with disabilities primarily foreground musicking as an expressive practice of inherent worth.