Instrumental Trouble: A Queer Organology of Hugh Davies's Found Instruments

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Organology, the study of musical instruments, has traditionally concentrated on the documentation of instruments: their history, roles in culture, and classification. However, as post-modern, feminist, and post-colonial perspectives have questioned some of the assumptions inherent in historiographical, ethnographic, and positivist endeavours because of their part in reproducing hegemonic ideologies, re-thinking organology and thus developing a richer account of musical instruments has become an urgent task. With this regard a queer perspective in organology, in particular informed by Judith Butler's theories of "gender trouble," is crucial in agitating normative beliefs, values, and attitudes that underpin notions of instrumental identity, interaction, and meaning. A queer organology becomes especially significant in the critical engagement with musical instruments like those invented by the British composer, performer, and inventor Hugh Davies (1943-2005), and in particular his entirely found, amplified, new musical instruments. This is because the challenges to traditional instrumental ontologies, the "instrumental trouble" that these instruments pose: reveal the boundaries of conventional organological approaches and methodologies, which are unsuitable in capturing their full significance. Deploying Butler's concepts of recognition, performativity, and subversion in their study can thus represent an effective strategy in the development of a coherent critique of Davies's instruments, but also in offering an opportunity to further the understanding of the fundamental importance that musical instruments play in the articulations of music, as part of what may be called an "instrumental turn."

Keywords: organology, queer theory, Hugh Davies, Judith Butler, philosophy of the musical instrument, electronic music

> An object may immediately be seen as a musical instrument by a member of one culture, but not by a member of another.
> – Henry M. Johnson

> Musical instruments are arguably the most fundamental constituent elements of music, and as such contain the largest potential for reorchestrating the practice of musical performance and production, or for ensuring that musicians and audiences do not deviate too far from established norms.
> –Steve Waksman

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become an urgent task. With this regard a queer perspective in organology, in particular informed by Judith Butler's theories of "gender trouble," is crucial in agitating normative beliefs, values, and attitudes that underpin notions of instrumental identity, interaction, and meaning such as those expressed by Michael Praetorius in his 1619 book *Syntagma Musicum* in which he claimed that "musical instruments may be described as the ingenious work of able and earnest artisans who devised them after much diligent thought and work, fashioned them out of good materials and designed them in the true proportions of art, such that they produce a beautiful accord of sound" (qtd. in Kartomi, 1990: 135). A queer organology becomes especially significant in the critical engagement with musical instruments like those invented by the British composer, performer, and inventor Hugh Davies (1943-2005), and in particular his entirely found, amplified, new musical instruments. This is because the challenges to traditional instrumental ontologies, the "instrumental trouble" that these instruments pose reveal the boundaries of conventional organological approaches and methodologies, which are unsuitable in capturing their full significance. Deploying Butler's concepts of recognition, performativity, and subversion in their study can thus represent an effective strategy in the development of a coherent critique of Davies's instruments, but also in offering an opportunity to further the understanding of the fundamental importance that musical instruments play in the articulations of music, as part of what may be called an "instrumental turn."

1. Questioning "the Very Fact" of an Instrument

In a 1974 publication titled *New and Rediscovered Instruments*, David Toop (b. 1943) acknowledged the existence of a "small, though expanding, group of individuals of widely differing backgrounds who are commonly involved in the making of new and rediscovered musical instruments" (1974: 3). The book featured work by Toop himself as well as Hugh Davies, Paul Burwell (1949-2007), Max Eastley (b. 1944), Evan Parker (b. 1944), and Paul Lytton (b. 1947). Echoing earlier claims by the Italian futurist Luigi Russolo (1885-1947) and the French-American composer Edgar Varèse (1883-1965), Toop claimed that building new musical instruments was a requirement of the age, a requirement of ears that had become accustomed to a new sonic environment, and also a technical requirement of new music, for which conventional instruments were no longer suitable (1974: 3). Despite the significant activities of this group of individuals, there are no studies that directly and comprehensively address their work and in particular the importance of their new musical instruments vis-à-vis broader notions of what a musical instrument is and can be. Such a study is necessary not only to uncover marginalised histories of instruments that do not conform to a canonical *lutherie*, but also as an opportunity to rethink musical instruments beyond conventional frameworks.

Of particular interest in this regard is the work of Hugh Davies, the composer, performer, artist, and researcher whose main activity was arguably the invention of new musical instruments. Indeed, it is estimated that Davies built 130 new instruments, sound sculptures, and site-specific installations (categories that often overlapped in his work), which he developed over a period of about 40 years – from 1966 until his death. In devising his work, Davies did not speak about the Praetorian diligence of thought and work, but rather of serendipity, the "faculty of making happy chance finds" (Roberts,

1977: 11). The technique of the *objet trouvé* meant a repositioning of the traditional *lutherie* artisanal craft and skills and included a range of diverse materials and forms in Davies's instrumentarium. This serendipitous process was never more evident than in his "entirely" found instruments, which featured little or no physical modification, although they were often electronically amplified. Among these were the 3D Postcard, played by running a fingernail across the grooves of a 3D postcard at different speeds, and the Lid Clickers, consisting in removable metal lids, which were played by scraping, clattering, or spinning them as well as by clicking a button that was placed by manufacturers to ensure a product arrived sealed. Several "natural" objects were also part of the entirely found instruments, such as the Larchcone Clickers, played by running a finger along the side of a larchcone, and the Nut Whistles, played by blowing nuts or acorns that featured a hole bored by insects or animals. My Spring Collection featured the spirally coiled steel spring, which was one of Davies's most used sound sources.[1] The name My Spring Collection was both a pun referencing fashion jargon and a straightforward description of the instrument. Indeed, this instrument, realised in 1975 and revised in 1981, counted fifty different loose springs, both extension and compression types of different size and shape, which Davies had serendipitously collected over several years and then housed in a box. The instrument could be played in different ways, either with fingers or with a battery of objects (which could include all kinds of implement such as thimbles, feathers, fishing nylon, or toothbrushes), or it could also be blown. The magnetic pickups that Davies employed to amplify the instrument were also found objects. The first he used, around 1969, came from ex-RAF microphones, which Davies claimed had been used in Spitfires during the Second World War (1981: 160). Subsequently, when the supply of these diminished, he turned to old telephone handset earpieces or headphones used by the military or by telephone operators. The Egg Slicer also used the magnetic pickup for amplification. The instrument consisted of the kitchen appliance, which Davies plucked, strummed, and variously stimulated (for instance playing it with a feather and blowing on it with a straw), revealing rich tonal possibilities.

To fully understand the significance of Davies's found instruments it is necessary to acknowledge the ideas, attitudes, and practices surrounding musical instruments that circulated, were adopted, and developed in the twentieth century. Indeed, in the past century there has been considerable activity around the reformulation of musical instruments that interests a study of Davies's work. For instance, traditional instruments, such as the piano, have been re-interpreted, as in the case of the prepared piano by John Cage (1912-1992) and the *Piano Transplant* series by Annea Lockwood (b. 1939); new instruments have been devised using the then-emergent electronic technology, such as the Ondes Martenot and the Theremin among many others; the practice of sound sculpture developed considerably, blurring the boundaries between *lutherie* and fine art practices, for example in the work by the Baschet Brothers or Max Eastley; Pierre Schaeffer (1910-1995) theorised a "pseudo-instrument," a perceptual construct that framed sounds that were heard as originating from a common source, while Douglas Kahn spoke about "conceptual instruments," instruments that are "impossible to construct, or whose sound is impossible, or both" (1990: 17). Discussing at length these develop-

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[1] See Palermo, especially chapter 4, for an account of several other instruments based on springs, built by Davies.

ments would be an extremely interesting task, which nonetheless would require greater scope than is possible in this article. However, to clarify briefly the ideological underpinnings that motivated many of these developments, it is useful to report Harry Partch's words in *Genesis of a New Music* where, speaking about the promotion of a "youthful vitality in music," Partch addressed students with the following exhortation:

> Question the corpus of knowledge, traditions, and usages that give us the piano, for example – the very fact of a piano; they must question the tones of its keys, question the music on its rack, and, above all, they must question, constantly and eternally, what might be called the philosophies behind the device, the philosophies that are really responsible for these things. (1979: xvi)

Partch's encouragements go further than advocating the establishment of different temperaments; indeed, his words resonate with the many challenges to instrumental traditions pursued by twentieth century composers, musicians, and artists. However, have organological studies acknowledged such work by addressing "the philosophies behind the device"?

In fact, the majority of studies on musical instruments have been concerned more with accounting for the "fact" of the instrument, rather than questioning "the corpus of knowledge, traditions, and usages" that produce musical instruments. For instance, Nicholas Bessaraboff claimed that organology aims at covering the "scientific and engineering aspects of musical instruments" (qtd. in Oler, 1970: 171). Such an aim informed principally the description of the morphology of instruments, their acoustic properties, and their taxonomic categorisation, such as for instance in the widely used system devised by Erich Moritz von Hornbostel and Curt Sachs based on the mechanism of sound production. Margaret Kartomi has argued in particular that these kinds of "Western" typological classification system have tended towards ahistoricism and positivism and that the construction of increasingly abstract categories risked leading to the interpretation of variations "not as historically explainable phenomena but merely as imperfect forms of the underlying 'essence'" (1990: 29). Therefore, Kartomi has identified the need to pay greater attention to how these systems are born and function claiming that "classifications are often synopses or terse accounts of a culture's, subculture's, or individual's deep-seated ideas about music and instruments, as well as, in some cases, philosophical, religious, and social beliefs" (1990: 7). Therefore, in this context questioning the very "fact" of an instrument may become an even more resonant and significant task than a musical one.

2. An Instrumental Turn

Despite the tradition of organological studies Davies believed that, save some exceptions for a Stradivarius violin, a Ruckers harpsichord or a Steinway piano, musical instruments had been neglected and taken for granted; indeed, he claimed:

> Depending on the context, the normal focus is either on what is ultimately the only really important aspect, the sounding of music in performance, or else on the lives of its major composers and, especially in recent years, of its star performers. After these come other considerations, such as music's written-down notation, the accuracy of surviving manuscripts and the different versions of a composition, the authentic manner of performing earlier music, and so on. Last of all are the sources of all sounds, the instruments themselves. (2001: 295)

An "instrumental turn" is thus long overdue in the study of music, and slowly the case for such a turn has been gaining momentum. Indeed, Henry Johnson encouraged a broader, more critical understanding of musical instruments claiming that "a musical instrument is more than just a sound-producing instrument" (1995: 266). According to Allen Rhoda "instruments do much more than simply vibrate when struck" (2014: 381), while Eliot Bates has called for "thinking through instruments" (2012: 368). Phil Alperson proposed a description that goes beyond the common-sense view of musical instruments as "discrete, selfsubsisting material objects, intentionally crafted for the purpose of making music by performing musicians" and concluded that "what counts is that an object takes its place in the world of musical practice as something that can be used as a musical instrument" (2008: 38). Steve Waksman suggested that musical instruments are polyvalent and polysemic, as they are a resource for and a source of music, they are tools and commodities, material objects, visual icons, sources of knowledge, and cultural resources (2003: 253). To John Tresch and Emily Dolan, thus, it is no longer sufficient to account for the forms and functions of instruments, but there also needs to be an examination of the discourses and practices surrounding them (2013: 278). Indeed, Samuel Wilson has conceptualised the instrument as constituted by "relationships that make it what it is; how it is used, thought about, and heard" (2013: 427), while Kartomi claimed that "instruments are not just static objects but are products of human culture and therefore resemble living organisms" (1990: 31). Paul Théberge has proposed that the identity of a musical instrument could be more productively understood as that of an "assemblage," a term he redeploys from Gilles Deleuze and Félix Guattari in order to bring into relief the place of instruments "in a network of relationships... with other objects, practices, institutions, and social discourses" (2017: 59).

Ethnomusicologists in particular have attempted to address broader issues concerning musical instruments. However, such studies have often considered instruments only as synecdochal for the social system, concentrating more on social and cultural convergences rather than investigating their critical powers. Sue Carole DeVale, for example, claimed that "a sound instrument is a kind of hologram which can be rotated and viewed from many perspectives and which contains the essence of society and culture" (1989: 22). Kevin Dawe has spoken of musical instruments as more than the thing in itself:

> As sites of meaning construction, musical instruments are embodiments of culturally based belief and value systems, an artistic and scientific legacy, a part of the political economy attuned by, or the outcome of, a range of associated ideas,

concepts and practical skills: they are one way in which cultural and social identity (a sense of self in relation to others, making sense of one's place in the order of things) is constructed and maintained. (2012: 195)

These claims, though seemingly expanding the significance of musical instruments, also confine them to an essentialist conception, as objects endowed with a fixed and static meaning, which is always aligned with the status quo; however, are cultural and social identities only constructed and maintained, or can they also be challenged and transformed? How can musical instruments be thought to participate in and mediate such a struggle? To answer these questions, it is necessary to develop an adequate theoretical framework to bring into relief the potential oppositionalities of musical instruments.

3. A Queer Organology

In seeking to account fully for the value of Davies's entirely found instruments both a conventional organology and a discussion of their social history would be unsatisfactory. Indeed, what could a "scientific and engineering" study of the Egg Slicer reveal? For instance, it could discuss how different brands of slicers had their "strings" tuned to different pitch ranges, or how different strings could produce different sounds because the response of the magnetic pickup, which affected the variation in the intensity of the amplified sound, depended on the amount of iron the strings contained. Similarly, a social history of the Egg Slicer could say how its professional use was not widely spread beyond a small circle of musicians and only for a relatively brief period of time. It would clarify that Davies was not the first to amplify an Egg Slicer as a "miniature harp:" the British drummer Tony Oxley (b. 1938) for example had amplified egg slicers as well as springs and knives since the early 1970s, although Davies was the first to amplify the instrument with magnetic pickups rather than contact microphones, thus obtaining a lower and richer timbre. Although such information would certainly be interesting, it would also fall short of being able to develop as substantial an amount of material as with more technically complex and more widely used instruments, therefore appearing rather secondary in significance. Nonetheless, are sophistication in construction and widespread use the only measures to assess the importance of a musical instrument? A queer organology would go beyond such clear bias while also addressing much more fundamental questions about musical instruments, thus interrogating the "philosophies behind the device."

Fundamental to the articulation of a queer organology that is adequate in explaining the philosophies behind Davies's musical instruments is the concept of "instrumentality." According to Sarah-Indriyati Hardjowirogo, this concept identifies the "specificity of musical instruments as distinguished from other sound-producing devices" (2017: 12). However, Hardjowirogo argues that such an identity is "uncertain," "between the yet-to-be-defined instrument and the assumed other", thus open to cultural negotiation and gradual and dynamic shifts; indeed, for Hardjowirogo culturalisation of instrumentality affects the "degree of instrumentality" (indicating how recognisable an object is as a musical instrument) without necessarily changing the morphology of the object (2017: 12). In other

words, particular cultural circumstances frame and inform our perception of what is a musical instrument. To unpack this concept Hardjowirogo identifies a series of complementary criteria that participate in the construction of an instrumental identity. Among these criteria are: intention and purpose; immaterial features and cultural embeddedness; audience perception and liveness. In the context of the present study these descriptive and analytical aspects could be further articulated within a theoretical framework that is more specifically interpretative and critical.

For this purpose, redeploying Judith Butler's theories of "gender trouble" in an instrumental context could be extremely effective in dealing with the critical discussion of instrumentalities that are subversive. In other words, Butler's theories are able to perform the intellectual labour necessary to rethink and re-evaluate Davies's musical instruments in terms that directly reject the bias of conventional, hegemonic, and essentialist approaches in traditional organological, musicological, and ethnomusicological studies. A queer framework would question (rather than seeking to circumvent and therefore leaving them in place) the dominant, Praetorian, "common-sense" ideologies behind the concept of the musical instrument, which posit instruments as specialised musical tools, employing "fine" materials, and requiring skilled technical labour for their construction, as well as demanding virtuosic dexterity in their use.

According to Butler gender identity is a symbolic construction that creates its own illusion of stability, stability that can (and needs) to be challenged on its own terms by dissident forms of gender articulations. For Butler "gender is the mechanism by which notions of masculine and feminine are produced and naturalised, but gender might very well be the apparatus by which such terms are deconstructed and denaturalised" (2004: 42). Deconstructing and denaturalising gender, creating "gender trouble," has direct consequences for the understanding of sex and sexuality – since gender has a complex relationship with anatomy and desire. And especially in relation to the "biological," "material" body, gender, for Butler, comes to define how we construe its facticity, so that such an alleged a priori materiality is revealed as always already a cultural construction.

Applying Butler's theories of gender to the study of musical instruments can open up fruitful interpretative and critical opportunities. Indeed, similarly to gender identity, instrumental identity (or instrumentality) can be said to be established by the enforcement of normative characteristics that are construed as being "naturally" and intrinsically instrumental, rather than the product of socio-political-economic processes that have become reified in the particular materiality of an instrument, and only through queer formulations of instruments can this ideological matrix be revealed and challenged.

To Butler the issues of recognition, performativity, and subversion are fundamental in the context of troubling gender. These concepts could also be extremely productive in organising a critical and coherent discussion of Davies's instruments and in particular of his entirely found instruments, which present the most powerful case of "instrumental trouble." The purchase of these concepts is then not

23

only in their capability of generating knowledge on the value of Davies's instruments, but also, in (re)formulating instrumentality, they offer a better understanding of musical instruments more broadly.

4. Recognition and Hegemonic Instrumentality

Butler claimed that "gender . . . figures as a precondition for the production and maintenance of legible humanity" (2004: 11). In other words, the experience of acknowledgement of certain natura-lised and institutionalised gender models is crucial in the constitution of one's social viability as a human being. Therefore, recognition becomes "the site of power by which the human is differentially produced" either by conferring or withholding recognition (2004: 2).

There is a clear way in which recognition interests a study of Davies's musical instruments: in "authoritative" and "institutional" discourses the assessment of their viability and legibility as musical instruments has shaped both their invisibility and visibility. In turn, the differential productions of Davies's instruments also reveal the complexities and discursiveness of the act of recognition, whose modalities present further nuances than a dichotomy between withholding and conferring seems to allow.

To begin with, the existent publications on the history of music have largely ignored Davies's work in building new musical instruments – the omission functioning as a clear judgement on their worth. However, such an assessment also transpires from the few cases in which his work has been included, but where the information has been scarce. Indeed, in *Electronic and Experimental Music* there is only a passing reference to Davies in which he is called a "hacker of homemade musical instruments" (Holmes, 2012: 90), a description that needs further explanation of the terms "hacker" and "home-made" to achieve greater significance and relevance in accounting for Davies's work. In *Handmade Electronic Music* there is a brief account of Davies's work in a section called "Piezo Music," in which Davies is said to have begun "inventing piezo-amplified instruments in the 1970s, the most poetic of which consists of a disk with short steel wires soldered around its rim. By plucking or blowing gently at these wires, he could elicit a wide range of surprisingly deep, marimba like sounds, which he incorporated into composed and improvised work" (Collins, 2009: 41). However, it is not clear which instrument is discussed here: each of Davies's instruments had a specific name, even when this was part of a larger family; for instance, the "shozyg" family was a category name Davies gave to his amplified instruments, especially those that were housed in unusual containers, such as bread bins and accordion files. Each of the shozygs also had a proper name to distinguish them, such as Tellybrella and Miniature Radio. Furthermore, the first use that Davies made of a piezo electric pickup in a musical instrument was in the 1960s with the invention of the first member of the shozyg family, Shozyg I. It may be argued in these cases that there are necessary limitations in what can be included in such broad accounts, however the choice of what is given greater or lesser visibility functions as an implicit assessment of degree of viability despite the recognition conferred to the instrument.

In other cases, the recognition of Davies's musical instruments has been directly withheld. For example in *Electronic and Computer Music* the only reference to Davies's creative work regards Gentle Fire and Naked Software, two ensembles of which Davies was a member; about Davies's contribution in these contexts it is stated that "his gifts for designing unusual transducers out of materials such as scraps of metal and wood, rubber bands, and coils of wire attached to suitable electric pickups such as contact microphones, provided them with a wealth of cheap and versatile performance aids" (Manning, 2013: 162). In this text Davies's musical instruments are differentially produced as "transducers" and "aids." Although this terminology may draw attention to the experimental techniques that informed Davies's processes, which may have resulted in the building of new musical instruments, it also has the clear disadvantage of denying his instruments their instrumentality, an identity that was clearly asserted by Davies in the discussion of his work (for instance an article Davies authored was entitled 'My invented instruments and improvisations'). Similarly, in a report about the 2011-2013 exhibition *Oramics to Electronica* at the Science Museum, UK, the Egg Slicer, which was part of the show, was said to provide "amusement" at the thought of it being a musical instrument (Boon et al. 2014), a claim that while making the instrument visible also suspends the recognition of its instrumentality by undermining its seriousness.

In the few studies dedicated exclusively to Davies's creative work the recognition of his instruments' instrumentality has been conferred directly and clearly (Roberts, David; Palermo, 2015). However, in some cases the modality of its conferring has raised some further implications; indeed, there are tensions in the "artificial classification" (Kartomi, 1990: 13) established in "The Hugh Davies Collection: Live Electronic Music and Self-Built Electro-Acoustic Musical Instruments, 1967–1975" with the implication that Davies's electronically amplified instruments are a subcategory of what is termed Davies's "electronic sound apparatus" (Mooney, 2017), and how this differs from Davies's own "natural" classifications, which consisted in the fluid categories of "concert instruments," "instruments for exhibition," "found instruments," and "toy instruments," or in his grouping instruments in families such as the shozyg or springboard families. Also, in the 2016 exhibition *Amplified Objects* at Access Space, Sheffield, UK, which was based on Davies's work, the term "amplified object" was given much greater prominence and importance than "musical instrument." In this case, the articulation of an alternative identity could have appealed to an audience that may have found the term "musical instrument" deterring because of its cultural heritage, but it also risked leaving dominant ideologies about instrumentality unquestioned, therefore participating in the perpetuation of a binarism between a natural(ised) instrumentality and its "other."

It is important to stress that such examples of withholding and conditional conferring of recognition may have not been carried out intending to delegitimise Davies's work, but perhaps precisely because they may have not been done so they make evident and urgent the necessity to engage in a much more robust critique of hegemonic understandings of musical instruments in order to develop a more inclusive discussion on instrumentality. This is because the better acknowledgment of its diversity would have important consequences in the material dealings of these instruments, as for

instance in their preservation. Indeed, their inclusion in museum musical instrument collections depend on such understandings as demonstrated by the claim that:

> There are a number of definitions as to what constitutes a musical instrument, including Berlioz's "Any sounding body utilised by the composer is a musical instrument" (Hector Berlioz, 'Treatise on Modern Orchestration' quoted in David Cairns' *Berlioz: The Making of an Artist, 1803-1832*). However, museum musical instrument collections such as those at . . . are generally limited to objects that have been created deliberately in order to generate sounds, and, with a few exceptions, do not include unmodified "found" sounding objects. ("RE: Hugh Davies", 2016)

Here, despite the acknowledgement of authoritative (and now historical) formulations of an inclusive identity of musical instruments, hegemonic instrumentalities predicated on "common-sense" Praetorian notions of specialization, sophistication, and expertise are re-asserted as what is acceptable. What does not conform to such notions is rejected, and in this context the category of the "exception" is of particularly significance in its indeterminacy, which perhaps here stands for "primitive" and/or "non-Western" instruments.

In this manner, a circle is closed: what is considered to be illegible as a musical instrument is also illegitimate in a discussion about the topic, thus resulting in its invisibility. What is invisible doesn't have the opportunity to achieve legitimacy and therefore legibility, and so on. It is worth stressing that it is the active and ideological withholding of their recognition as legible that marks these instruments as illegitimate and thus "un-visible" and "un-viable."

Nonetheless, even if Davies's instruments "fail" to conform to the norms of a hegemonic instrumentality, by what notion can they still be said to become musical instruments? How can instrumentality be articulated beyond restrictive, sanctioned, and ossified beliefs and assumptions? The concept of performativity offers an opportunity to re-theorise instrumentality, opening up further intellectual horizons in the understanding of music.

5. Performativity: Doing and Undoing the Instrument

For Butler, performativity is indissolubly linked to gender; indeed, Butler says that "gender is in no way a stable identity or locus of agency from which various acts proceed; rather it is an identity tenuously constituted in time – an identity instituted through *stylized repetition of acts*" (1993: 519, italics in the original text). These acts constitute the performative as "the discursive mode by which ontological effects are installed" (1996: 112). In other words, for Butler gendered bodies are brought into being performatively by the citation of gender norms in a highly regulated and rigid cultural context and frame, where some constructions are accepted as authentic and others rejected as "copies." However, because of the discursiveness of such citations, which necessitate constant reaffirmation and repetition, these very performative acts also hold a potential for disruption when

articulating dissident forms of gendering. Indeed, Butler's theorisation of performativity in its queer "moment" is antiessentialist and antinormative because in that moment the reified and naturalised conception of gender is exposed and "undone" by revealing its condition as a "performative accomplishment" (1988: 520). The formulation of a conception of performative instrumentality can be as productive in the broadening of the understanding of musical instruments. Indeed, when thought of as "a specific modality of power as discourse" (1993: 187) performativity renders musical instruments not objects with intrinsic characteristics, but "always a doing" (2004: 34); not sanctioned by a singular act, but by "repetition and a ritual" (2004: xv). It is this very convergence of acts, gestures, and enactments that accomplish instrumentality, which has no essence. From this perspective in Davies's inventions, it is principally their playing that articulates that convergence of acts, gestures, and enactments within the highly regulated and rigid context and frame of a musical performance. It is these "citations" that have the power to install (and trouble) an instrumental identity. For instance with the Egg Slicer some of these citations included the strumming of the strings as well as of the rectangular harp-like frame, which was separated from the holder to add resonance; the gentle squeezing together of the longer sides to alter the tension of the strings and therefore their pitch; the turning up of the amplification level so that it was possible to blow on the strings in addition to plucking them; the placement of the instrument on or above a magnetic pickup to produce different timbres; the use of the pickup's rim to stop the strings for the higher pitches. In this way their instrumentality becomes an ontological effect, rather than a cause.

To bring further clarity on the performativity of instrumentality it is important to distinguish such an accomplishment from the concept of "instrumentalisation" and that of performance. Indeed, Andy Keep used "instrumentalisation" to describe a shift in the context of experimental music, from the concept of the musical instrument as a thing to that of an act that "explores an object for its inherent sonic properties" (2009: 113). This exploratory process "seeks to discover the performability, intrinsic sonic palette and possibilities for sonic manipulation of *objects*" (2009: 113, italics added). In Keep's formulation there is a clear distinction between the fluidity of instrumentalisation and the concreteness of musical instruments, thus assuming an instrumental identity as a stable, *a priori* identity rather than a discursive effect. Keep expresses this view by saying that musical instruments are predetermined things and that their role is to realise "a language outside or indifferent to its self" (2009: 113). On the contrary, the concept of performativity reveals the act of instrumentalisation as constituting the illusion of an abiding musical instrument: sonic manipulation interpellates and can trouble the musical instrument whether that be the case of a violin or an Egg Slicer – it is only their recognition as such that will differently produce their legibility. Instrumentalisation could thus be understood not as separate to instrumentality, but rather as part of the culturalisation process discussed by Hardjiowirogo.

It is also important to emphasise that the performativity of Davies's instruments is not to be considered an uncritical imitation of a musical instrument. Here it is crucial to stress the difference between performativity and performance. Butler herself draws a distinction between the two intending "performance" as theatrical representation, because "what is 'performed' works to conceal, if not to

disavow, what remains opaque, unconscious, unperformable" (1993: 234). Rather, performativity, in its queer moment, could be understood as a dissident articulation of the signifying gestures through which the musical instrument itself is established. Similarly, Davies's instruments could be interpreted not as naïve and/or normative formulations, but rather as part of a much more critical and subversive project.

6. Subversion and Timbre

For Butler subversion entailed the purposeful "deviation from normalcy" (1993: 176), which enacted a denaturalisation strategy and effect. Eve Kosofsky Sedgwick spoke of versions of performativity as "perversions" or "deformatives," which "might begin by placing some different kinds of utterance in the position of the exemplary" (1993: 3). Indeed, while the performative might (always only temporarily and ultimately unsuccessfully) perpetuate the normative, it can also disrupt it through displacement, resignification, and parody. To Butler an example of such articulations of subversion is drag performance because drag demonstrates how heterosexual constructs can be replicated and resignified easily and convincingly in non-heterosexual frames, thus bringing into relief the "utterly constructed status of the so-called original" (1991: 23). Although there are some directional differences, the displacement dynamics are similar in Davies's instruments. Indeed, in Davies's *lutherie* all extant objects were available for reinscription as musical instruments, thus establishing a *lutherie* that deviated from the artisanal product. This strategy is reminiscent of the fine art tradition of the "ready-made" in which, as described in the pages of *The Blind Man*, an "ordinary article of life" was placed so that "its useful significance disappeared" thus creating "a new thought for that object" ("The Richard Mutt Case", 1917: 5). In Davies's musical instruments ordinary articles of life also underwent this process of displacement and resignification. In this way, the Daviesian serendipity was similar to the Duchampian "rendezvous," a chance encounter that occurred when a non-art object, either a found object and/or prefabricated material that resulted from "productive" labour, was nominated as, or as part of, an art object. John Roberts has spoken of the transformative moment that the Duchampian ready-made represented, and how the ready-made, by incorporating productive and artistic practice, overcame art's alienated aestheticism (2007: 2). To Roberts, the readymade also brought the artwork "into full alignment with the modes of attention of modern mass production" (2007: 39). Indeed, Duchamp's readymades for Roberts are "congeries of simple labour and complex labour, artistic labour and productive labour, alienated labour and non-alienated labour" (2007: 72). Such a proximity and exchange of labour, which was made familiar and unfamiliar, "homely and unhomely" (2007: 41) to Roberts had a destabilising and subversive effect (2007: 33).

It is important to stress that the subversive power of displacement, resignification, and also parody in Davies's musical instruments is predicated on their enactment within a musical domain. Indeed, the radical re-imagining of a musical instrument as the "new thought" for an object or, to use Butler's terminology, the proliferation of the meaning of a musical instrument released from its naturalized interiority and surface, can only be engendered in the context of the regulatory frame of a musical

28

endeavour. Nonetheless Björn Heile, commenting on the "museumisation" of the instrumentarium used in the piece *Der Schall* (1968) by Mauricio Kagel (1931-2008) argued that:

> There is something distinctly odd about cheap toy instruments being treated like valuable artifacts solely on account of their use by a recently canonized composer. Indeed, this approach seems to be at odds with Kagel's iconoclastic intent when he combined objects that seemed to come from a trash can and cheap plastic toys with valuable instruments to produce his own brand of musical arte povera in the first place. (2010: 133)

It may be argued that Kagel was more interested in exploring what could be done with seemingly unpromising material than finding a sound that had to be used and that therefore in performance the process and the symbolic meaning of working with "worthless" instruments was more important than obtaining the exact same sound. Similarly, it could be argued that Davies's found instruments are to be primarily considered as iconoclastic, disobedient gestures rather than to be taken seriously in terms of the music they produced. However, the inclusion of objects from a rubbish bin, or of cheap plastic toys, springs or an egg slicer, for Davies was part of a specific musical project, and although the unorthodoxy of these items was an important aspect, their significance could not be reduced to it – indeed their power of subversion lies in the recognition that their provenance did not impede their legitimacy as musical instruments. Indeed, the use of found instruments allowed Davies to create "new" sounds, sounds richer in timbre than those possible with orchestral instruments. Timbre was a crucial concern for Davies, and indeed he believed that achieving a wider range of timbres, as well as seeking divergences from tempered tuning and increasing pitch inflection possibilities, was the aim of specially constructed and found objects (1992: 504), and of the adherence to older technology (1992: 507); with this regard he claimed that:

> The instruments of the traditional orchestra have undergone several centuries of development and improvement, such as in terms of greater control and flexibility, wider pitch range, louder sound capability, greater ability to project the sound in larger halls, and better blending with other instruments. But the question never seems to be posed: have all these gains been at the expense of anything – such as timbre? (1992: 506)

Thus, sound in Davies's found instruments, although not producing what Praetorius might have called a "beautiful accord of sound," was not an epiphenomenon – rather, concerns about their aural possibilities underpinned the serendipitous encounter with the instruments. Discounting the aural dimension of Davies's inventions could thus be considered to be another way of denying their identity as musical instruments and therefore to neutralise their subversive potential. Therefore, it

seems justifiable that the Egg Slicer becomes part of a museum collection,[2] because although it is an "ordinary article of life" it was not simply chosen for its iconic and symbolic meaning, but also for the actual sound it produced, a sound that another egg slicer would not be able to produce, and one worth preserving in case a manufacturer discontinued or modified the production of the item, as had already happened with egg slicers in Davies's lifetime.

7. Conclusions

The study of musical instruments necessitates a paradigm shift in order to account both more broadly and more accurately for the possibilities and implications of instrumentality. Such a critical organology needs to be able to discern and disentangle the complex discourses that are imbricated in musical instruments and acknowledge more clearly the fundamental importance that the musical instrument plays in the articulations of music. In this way musical instruments can no longer be thought of as objects whose facticity can be objectively determined, but rather as the product of the intersections of a society's shifting practices and discourses and as such holding the potential for their continuous doing and undoing. In this context Davies's found instruments, and especially his entirely found instruments, are an ideal case study because by challenging normative assumptions about musical instruments, they compel the question of what are musical instruments, thus representing a possibility for their cultural transformation. In challenging the normative requirements of a Praetorian, "correct," hegemonic *lutherie* predicated on the values of sophistication, preciousness, skill, and expertise, Davies's found instruments become a site of contest for the radical rethinking of instrumental identities. Indeed, in a Butlerian interpretation, Davies's instrumental praxis has the effect of denaturalising, re-signifying, and proliferating musical instruments thus leading to the affirmation of newly permissible instrumentalities: the category of musical instruments is therefore rendered permanently problematic. Being able to account for such instrumental troubles, is thus a way to allow for a richer and more diverse account of musical instruments, but also a way to rethink them and thus to recognise their potential to transform musical production but also, in turn, participate in the broader transformation of philosophical, religious, and social beliefs.

Acknowledgements

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[2] That the musical instruments held in a museum are rarely sounded is a separate but related issue. For instance, Bates has claimed that "instrument museums are mausoleums, places for the display of the musically dead, with organologists acting as morticians, preparing dead instrument bodies for preservation and display" (365). However, see Hilde for an account of how museums are not just repositories of precious objects, but could also be places where interesting experiences can happen.

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