The Collaborative Pedagogies of Solo Improvisation: Learning through Performance in Noise Music

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Introduction

Within empirical studies centered on free improvisation pedagogies in music education, scholars have found a multitude of benefits. These include improved music performance abilities and sociocultural developments (Hickey 440), reduced performance anxiety (Allen 113), improved confidence (Hickey et al. 135), and increased student agency (Wright and Kanellopoulous 82). Theoretical investigations have also positioned this music making practice as a valuable educational technology, with authors framing improvisation pedagogies as an inherently democratic educational praxis (Kanellopoulos 116; Niknafs, "Free Improvisation" 30) and liberatory form of knowledge construction (Fischlin et al. 56; Niknafs, "Khas-o-Khâshâk" 32). To this end, scholars have established the foundational role free improvisation can and should play within the process of learning through making music. Yet despite these insights, extant research has largely failed to consider the mechanisms through which individuals learn while engaged in the process of free improvisation. Stated differently, previous studies have shown that musicians develop their musical and sociocultural knowledges by freely improvising, but *how* free improvisation leads to that knowledge construction remains largely unexamined.

Although multiple musical contexts can serve as sites of research for exploring mechanisms for knowledge construction through free improvisation, I use this paper to examine the pedagogical nature of noise music, a caustic hybrid of industrial, punk, and electronic music (Bailey 31) that regularly employs practices connected to freely improvised music making (Klett and Gerber 277; Novak 159) and has largely been overlooked in music education literature. Drawing on Thomson's notion of performance as classroom, as well as my own process model of artistic practice in noise music, I explore the pedagogical interactions of one exemplary noise performance: a video of longstanding US noise artist Crank Sturgeon performing at the Sorority House venue in Portland, OR (Bellerue). Through the analysis of this video, I contend that a distributed and non-anthropocentric understanding of collaboration at the heart of noise music expands the borders of performance as classroom to engage not only the performer on stage but the audience and the music making technologies involved in the process of developing a supposedly individual artistic practice. In doing so, I challenge previous anthropocentric framings of collaboration within improvisation and push future researchers to consider non-human contributions within free improvisation pedagogies.

Exploring the Classrooms of Noise Music

Before analyzing the video of Crank Sturgeon, however, it will help to situate noise music and its emergent pedagogies within a broader historical context. Although noise music draws influence from a wide array of sources—including punk, industrial, mid-century experimental music, and free jazz—the foundations for this abrasive and highly caustic genre primarily rest within two music communities from the late 1970s and early 1980s: the Japanese harsh noise scene and the European power electronics scene (Novak; Taylor). Music from these two communities then traveled to North America as US artists blended influences from both (Candey 43–4). But, as

many scholars have argued, defining noise music through this simplified, aesthetic lineage ignores the multitude of entry points into noise from other music traditions (Novak 7). Additionally, the existence of groups like the Nihilist Spasm Band point to a North American noise music tradition that emerged before the genre was defined (Hadfield).

For Atton, the construction of noise music as a genre must therefore be understood discursively as musicians and listeners constantly engage in the pedagogical process of constructing genre boundaries and musical knowledge through performances and interpersonal interactions (327). The performance by the Art Ensemble of Chicago at Trip Metal Fest (Histamine), a noise-centric festival organized by members of noise group Wolf Eyes, gestures towards this border work: despite being commonly defined outside of the genre, noise musicians and fans embraced the creative music group as both influential precursors and contemporary practitioners of the genre (Basu 67). As for musical knowledge, Klett and Gerber locate the emergence of musical skills and ideologies within the interaction between performer, audience, and instrumentation, an interaction that relies on indeterminant and improvisatory approaches to music making (287). Through this framing, noise becomes an "alternative pedagogical institution" (Fischlin et al. 36) aligned with and emergent from the educative space created by free improvisation and its surrounding community.

To better understand what those pedagogies entail, Thomson's dual formulations of performance as classroom and scene as classroom provide a valuable framework. Starting with performance as classroom, Thomson contends that the performative moment within freely improvised music provides a space for musicians to not only develop musical techniques but socio-cultural skills and interpersonal relationships (4). This conception aligns with Lewis' autodidactic framing of improvisational pedagogies where people develop highly situated musical practices, cultural identities, and ideologies through the creation of music (1). Thomson also asserts that the spontaneous nature of free improvisation requires a non-hierarchical and communal approach to pedagogy during which "musical authority circulates" (4). Instead of one person directing the group, performers follow and lead at various moments throughout the performance. In this sense, free improvisation as a pedagogical interaction involves "inventing new codes, inventing the message at the same time as language" (Attali 134). Musical knowledge emerges from a communal process of listening and responding to one another such that meaning and music making take place with individual developments of personal technique following suit.

Adjacent to the performance as classroom, Thomson positions the scene as classroom as another pedagogical space (7), referring to the individuals that form a given music community and "engage in a system of subtle mentorship" (8). As Niknafs points out in her study of Iranian "anarcho-improv" scenes, this learning ecology intermingles musical practices with cultural ideologies to produce a broadly encompassing sociocultural curriculum that mirrors the performance as classroom ("Khas-o-Khâshâk" 40). In my previous research, I utilized the scene as classroom as a frame to investigate the Milwaukee noise scene and produce what I define as a process model of artistic practice (see fig. 1) (Woods, "Process Model" 755). To explain: as individuals construct their practice as musicians, they largely develop knowledge about and understandings of five distinct categories: (1) composition and performance techniques, (2) musical technologies/instruments, (3) dispositions towards music, (4) music scenes, and (5) musical artifacts such as performances, recordings, or compositions. Their practice also emerges through three highly iterative steps. First, the "blown mind moment," a formative encounter with one or more of the five categories listed above, causes a disruptive shift in the

now emergent musician. Seeing one's first freely improvised performance, for example, can produce a blown mind moment if that encounter changes that individual's personal definition of music. Second, musicians enter an extended exploration phase where they independently (or, to use Lewis' term, autodidactically) experiment with the affordances of their new understanding of music and identity. Pedagogically, this stage involves listening to large amounts of new music and tinkering with performance techniques or technologies, leading to an understanding of extant music and the development of an artistic practice. Finally, musicians produce a finished composition or performance that they then share with an audience. Despite this linear description, this process model remains both emergent and iterative as musicians constantly move back and forth between the different phases.

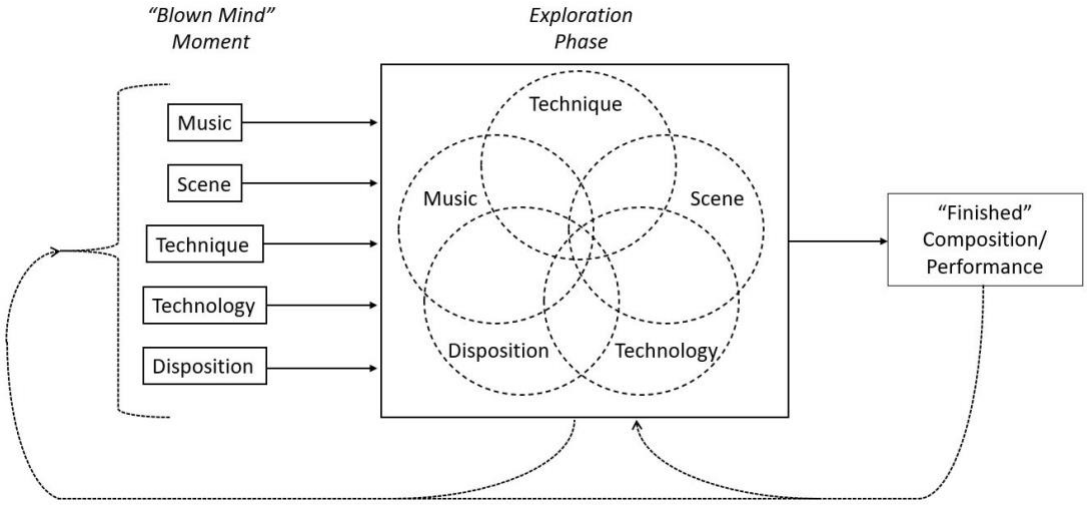

Fig 1. Process Model of Artistic Practice (Woods, "Process Model" 755)

In developing this process model, I built on Thomson's framing of the scene as classroom to consider other mechanisms of learning that occur within music scenes. However, the mechanisms of learning within the performance as classroom remain largely unexamined beyond a general sense of shifting authority. To better understand how individuals learn through performing, I now consider how this process model of artistic practice might operate within the performance as classroom (as opposed to just the scene as classroom). Before doing so, however, I turn towards extant literature to more fully explore the notion of performance as classroom within noise music.

Towards a Noisier Form of Collaborative Learning

In his original formulation, Thomson specifically defines the enactment of performance as classroom as a communal endeavor wherein pedagogies rely on interacting with other people (4). In doing so, he reinforces the widely accepted assumption that free improvisation thrives in collaborative, ensemble settings. Fischlin et al. reinforce this framing by defining free improvisation as a spontaneous form of cocreation (not simply creation) in which a musical form or language emerges through the act of performing (36). Although the boundary of who contributes to this collective process of creation can extend outwards to include the audience (Attali 141), Fischlin et al. almost exclusively discuss free improvisation as a collective activity distributed across performers. This becomes especially clear when the authors discuss "the

ethics of collective free improvisation," reframing music making as an enacted form of human rights precisely because of the negotiation that happens between musicians onstage (19). Bailey's earlier assertions extend this argument by critiquing free improvisation within solo settings, claiming that solo improvisations lose a certain amount of unpredictability as musicians rely on pre-determined vocabularies while jettisoning exploration or discovery (260). This furthers the idea that the performance as classroom exists as a communal space, one in which the classroom has to form around a group of performers and not a soloist.

Returning to the context of noise music, this distinction between the pedagogical possibilities of collective and solo improvisation becomes vitally important for a very simple reason: a lot of noise artists perform solo. This aspect of the genre positions noise music as one valuable site to explore solo improv pedagogies. If Thomson's assertion that the performance as classroom relies on collective forms of improvisation proves correct, though, a good portion of noise performances would not count as pedagogical experiences. However, freely improvising musicians have routinely pushed back on this communal framing of free improvisation. Aligning with Lewis' notion of autodidacticism (1), Fred Anderson's *Exercises for the Creative Musician* illustrates how individuals can learn through solo, private improvisational practices by guiding individual performers through an engagement with various elements of creative music (Anderson and Steinbeck). In doing so, musicians learn through encounters with specific modalities of music making as opposed to other performers. Similarly, Matana Roberts' practice as an improviser often involves creatively responding to non-musical, inanimate objects (Roberts). Even in collaborative contexts, Roscoe Mitchell routinely positions free improvisation as a solo endeavor, a process of "getting people to function as individuals inside of the improvisation" (Mitchell). Mitchell goes on to argue for the value of performing and learning within both solo and collaborative contexts, producing a more holistic understanding of free improvisation and its pedagogies.

Although the link may not be intentional, the emphasis on the collaborative nature of free improvisation within academic literature aligns itself with the related notion of distributed creativity developed by Sawyer and DeZutter (90). Under this notion, the locus of creativity rests not in the individual but in the interactions, responses, and relationships between collaborators. Moreover, the broadened definition of distributed creativity proposed by Glăveanu addresses the challenge posed by solo improvisers such as Roberts. Instead of distributing creativity between individuals, his expanded definition distributes creativity between artists, audiences, artifacts/performances, technologies (i.e. instruments), and time as musicians develop their craft (Glăveanu 27). Importantly, this challenges the anthropocentrism at the heart of the original definition and allows solo noise music performances to be understood as being collaborative. But, rather than completely decentering the human subject, free improvisation engages a dialectic process where the human performer is de- and re-centered at different times to create space for the agentic contribution of non-human actors, such as instruments, to exist alongside human contributions (Petitfils 34; Woods, "Reimagining Collaboration"). Solo performances within this framing still exist as collaborations and, as Moten contends, amplify an inherent challenge to the distinction between individuality and collectivity (129).

Moreover, the accusation made by Bailey that solo improvisations lack the spontaneity of group improvisations relies on a specific understanding of the relationship between a performer and an instrument. Within a traditional approach to performance, musicians develop techniques in which they enact full control over an instrument by reproducing predicted sounds in performance. While Keep expands on this concept within the context of creative music, shifting

towards a model of "instrumentalizing" in which a musician's perspective of their instrument transforms performance into "an act that explores an object for its inherent sonic qualities" (113), he still relies on notions of skill defined by control and reproduction. Although some indeterminacy does exist within this model, a musician's skill rests in their ability to shift from indeterminant sounds back to controlled techniques and vice versa.

Noise music, however, produces a different type of relationship. According to Novak, noise musicians "deliberately attempt to keep themselves from naturalizing . . . instrumental self-expression. To perform their own loss of control as authoritative human subjects, they cannot fully learn the system[s]" (159) of electronic devices that form their instruments. In this framing, noise music instrumentation provides a constantly evolving and spontaneous set of sounds and gestures to which the human performer can respond, and noise musicians embrace that spontaneity. This relationship aligns with Glăveanu's notion that distributed creativity can emerge through the interaction between artist and artifact, and it challenges Bailey's assertion that solo free improvisation loses the spontaneity of ensemble performances. While traditional approaches to technique may limit the spontaneity of some improvisations, a non-anthropocentric framing of music making reintroduces unexpected sonic prompts. This framing positions technology as an agentic contributor within the performance as classroom and aligns with noise music's distributed notion of pedagogy (Woods, "Conceptions of Teaching"; "Reimagining Collaboration"). If free improvisers construct situated knowledge and meaning by listening and responding to the choices of others in the performance as classroom, then solo noise musicians do the same by listening and responding to the sonic contributions of their instruments without asserting their authority. Rather than forcing their instruments to make a specific set of sounds, musician and technology together craft meaning and musical languages as they speak with and to each other.

Noise musicians also extend notions of authorship beyond that of the performer to include the audience and the larger social context. Within Novak's ethnographic study of the Japanese harsh noise scene, for example, the author asserts that noise music "can be deeply evocative of personal emotion, but noise is not 'my sound,' or even 'this sound I make,' but 'a noise that surrounds me and becomes my world'" (159–60). This aligns noise music, at least on a theoretical level, with Glăveanu's assertion that distributed creativity can also emerge through the interaction between audience and artist, an interaction that Klett and Gerber see as foundational to the genre (327). Additionally, noise music evokes the longstanding tradition within experimental music of challenging the hierarchical divide between performer and audience. As Nyman notes, mid-century experimental composers often utilized indeterminacy to amplify the agency of "listeners" by inviting audience members to contribute new sounds to the performance and, further, by reimagining performance structures that removed the agency of the audience (such as dispersing musicians throughout a physical environment and inviting audiences to move freely around the space) (6). To this end, experimental music mirrors participatory forms of music, such as the musical practices of Zimbabwean communities described by Turino where the notion of an audience fails to hold significance since everyone contributes to the performance in meaningful ways (123). In doing so, experimental music challenges the presentational nature of Western music by inviting audiences to contribute to a collective performance and craft their own individualized listening experience (while non-Western, participatory musical forms begin from the assumption of fully agentic collaboration).

All told, this collection of texts expands on Thomson's original formulation of performance as classroom in two directions. First, the classroom no longer has to include an ensemble but can

emerge through a solo performer with the various human and non-human actors that performer engages. Second, audience members can join the classroom through the cultural practices of non-Western, experimental, and noise music. To further explore both extensions, I now turn to the work of Crank Sturgeon as one example of how noise music practitioners conceive of performance as classroom in situ.

The Pedagogy of Crank Sturgeon

Performing since 1992, Crank Sturgeon has become one of the most influential and prolific noise artists within the US noise scene (Bruyninckx; DeRaadt). Through his thirty-year run, Crank Sturgeon has developed into a unique project by "incorporating elements of improvisational comedy, homemade electronics, and jarring junk noise" and drawing from "Dadaist sound poetry, Viennese Actionist confrontation of art/non-art boundaries, and good old-fashioned screaming noise dysfunction" (DeRaadt). In doing so, Crank Sturgeon has constructed a practice that sits at the intersection of free improvisation and composition (or, at the very least, pre-determined musical gesture). As Crank Sturgeon explains, "when I'm doing a live show it's kind of operating on trusted elements. The big unknown is what's going to happen in the show and how it responds to the audience or whatever circumstances are at the venue" (as cited in DeRaadt). Combined with the fact that "all of [Crank Sturgeon's] work tends to combine improvisation with drawing, assemblage, and electronic media" (Space), Crank Sturgeon's work emerges within a matrix of improvised gestures, predetermined performative elements, agentic technologies (in the form of instruments, costumes, etc.), spaces, and audiences. Although Crank Sturgeon remains the sole performer on stage, the project engages creative collaboration across all of the elements described by Glăveanu and produces a unique enactment of performance as classroom through noise.

It is for all of these reasons that I have chosen to focus on Crank Sturgeon's 2007 performance at the Sorority House venue in Portland, OR (Bellerue). I have conducted a close reading (or, more accurately, viewing) of the video, paying particular attention to moments that align conceptually with the process model of artistic practice (Woods, "Process Model" 755) discussed previously. Since the video captures a finished performance, I have specifically sought out evidence of blown mind moments and subsequent phases of exploration. Because I was analyzing video and could watch the performance outside of a linear unfolding of time, I have positioned myself outside of the temporal space in which both Crank Sturgeon and the audience found themselves. While my perspective as analyzer of a recording may have produced a certain distance between my own meaning making and any meaning the audience may have ascribed to the performance in real time—in that, for example, their experiencing a moment only once provides a significantly different context than my being able watch and rewatch things repeatedly—relying on the mediated nature of video has also allowed me to draw on what Halverson and Magnifico define as bidirectional artifact analysis. In this methodology, researchers can "trace core ideas and tools present in the final product back through their development" (Halverson and Magnifico 409), creating an opportunity not to recreate the experience of those in the video but to examine learning more deeply as a process of meaning making distributed across multiple (human and non-human) participants and time. Being able to conduct repeated viewings and temporally move through the recording in different ways therefore provides an affordance for unearthing learning praxes within this performance.

Crank Sturgeon as Learner and Performer

The set starts with a brief moment of absurdist spoken word, with Crank Sturgeon repeating the phrase “get your fish eyeballs here” multiple times before quickly transitioning into a wall of distorted static. The performer head bangs violently enough to throw his fish mask off of his head, revealing the main instrument for the performance: an amplified helmet-type device that includes a small tin can attached to the end of a rope. Crank Sturgeon then plays the instrument by spinning the can around his head and distorting the electrical signal generated by an attached contact microphone with effects pedals. Although quieter passages emerge when Crank Sturgeon turns off his distortion pedals, allowing listeners to hear vocal tirades over the noise, the performance mostly continues at full volume as the artist switches between auxiliary instruments (a guitar, various metal objects, an unplugged cable, and a circuit-bent effects pedal).

Crank Sturgeon’s insistence that he primarily relies on trusted or known elements would seem to restrict the pedagogical possibilities of his performances, thus limiting my ability to examine how this performance might provide space for an educational praxis via the performance as classroom: if he already knows what he will do and how his instrumentation will respond, Crank Sturgeon does not leave a lot of space to explore unknown ideas or respond to new sounds. However, about one minute and forty seconds into the video, Crank Sturgeon’s equipment suddenly turns off and you can hear him shout “what the fuck” multiple times over silence. This dynamic shift and surprisingly lucid commentary allow for the assumption that a piece of equipment suddenly and unexpectedly broke. Although this may have merely been a performative gesture, Crank Sturgeon admits that he often finds himself in these situations: “My shit is so riddled with accidents that perhaps what you might interpret as tension is actually me improvising my way out of something that isn’t working!” (as quoted in Bruyninckx). The instrumentation therefore produces a gesture and Crank Sturgeon needs to respond.

Considered through a pedagogical frame, this moment aligns itself with the process model of artistic practice as Crank Sturgeon moves from blown mind moment to exploration phase within the finished (or, more accurately, finishing) performance. First, Crank Sturgeon experiences an admittedly mild blown moment where his gear suddenly operates in a different way. This alters his understanding of not only his equipment, but also the structure of the performance. To use Thomson’s wording, the gear asserts its authority over the performer and invites a response (6). Second, Crank Sturgeon takes this opportunity to immediately shift into an exploratory process, using the broken gear and his attempts to fix it as a new means of making music and reclaiming authority. Structurally, this shift produces a quieter passage, filled with buzzes and synth-like squeals intermingled with sound poetry. Although the knowledge of how to work with his malfunctioning gear may only prove temporarily useful, this moment of problem solving still produces new musical knowledge through a highly truncated version of the process model. Finally, as this sonic exploration begins, the performance continues to unfold. Since noise and free improvisation evoke a pedagogy of constructing musical languages in the performance itself (Attali 134), the act of developing musical knowledge and creating music from that knowledge co-exist in the same temporal moment. It then follows that free improvisation would collapse the process of developing an artistic practice, using this model or another, temporally within an unfolding finished work. In other words, the finished performance contains the entire process model of artistic practice within itself.

Engaging the Audience as Learner and Performer

Within the video, one other clear moment of educational praxis expands on the previous example by inviting the audience into the performance as classroom. Around the seven-minute mark, the performance takes another dramatic shift as Crank Sturgeon introduces a new instrument: a roll of plastic wrap. He instructs the audience to, first, grab on to the sheet as he unravels a continuous (and incredibly long) piece of plastic for the entire audience to use and, second, blow on it in a specific way to make a high-pitched squeaking sound. From within his familiar improvised sound poetry, Crank Sturgeon instructs those audience members who cannot reach the plastic wrap to "ohm" or hum. As he unravels the plastic, the audience immediately begins making sounds, both vocally and with their new instrument, that fall far outside of Crank Sturgeon's original directions: audience members shout, mash their faces into the plastic, etc. Crank Sturgeon wrangles them back in swiftly, inviting them to join a vocal call-and-response. Although the audience tries to follow along, the structure quickly falls apart and Crank Sturgeon starts laughing as the audience resumes independently exploring the plastic and various vocal techniques. Crank Sturgeon then regains his composure, looks at one audience member working with the plastic wrap, and says "that's pretty good." He then brings a contact mic over to the audience member and amplifies his portion of the plastic wrap before moving on to another audience member to do the same. The video cuts off at this point, despite the performance continuing beyond what the viewer sees in the recording.

Because noise builds on participatory notions of the audience as an agentic contributor (Turino), the performance as classroom expands to include not only Crank Sturgeon but the audience as well. The performance aids in this pedagogical extension by once again reinscribing the process model within the performative moment. This expansion begins with an initial blown mind moment as the audience sees the plastic wrap. Although some people in attendance may have seen plastic wrap being used as an instrument before, I believe it is safe to assume that some have never considered the sonic affordances of this particular material. Moreover, the audience also has to navigate a shift in identity away from listeners to more active performers. Audience members then build on this moment by exploring the possibilities of their new instrument, their own voices, and their unique positions as performers.

A pedagogical praxis emerges in this process from Crank Sturgeon's perspective as well. For him, the blown mind moment comes from the technique used by an audience member, as illustrated by his use of the phrase "that's pretty good" after hearing a particular sound coming from the plastic wrap. Crank Sturgeon must be familiar with the material, given that he instructs the audience on how to use it, but for whatever reason this audience member sonically stands out for him. Crank Sturgeon takes the opportunity to explore alongside this audience member, combining the technologies of the contact mic and the plastic wrap with the audience member's technique to create a new sound. As he moves on to the next performer, Crank Sturgeon solidifies this collaborative approach and commits to embracing the audience and the amplified plastic sheet as an extended part of his performance. In doing so, Crank Sturgeon touches on all three phases of the process model and the model once again temporally collapses.

Conclusion

As an examination of my process model of artistic practice through the lens of performance as classroom, this analysis of Crank Sturgeon's 2007 performance at the Sorority House in Portland, OR not only builds on the communal framing of free improvisation from extant literature but reimagines the temporal assumptions within the model itself. Although the two-dimensional nature of the original visualization of the model reinforces a progression (albeit an

iterative one) across time, the performance as classroom collapses the stages of the model within a finalized practice. In other words, Thomson's work provides an understanding that the blown mind moment and exploration phase do not precede a finalized practice or finished performance but in fact *are* the performance. Additionally, this temporal collapsing of my process model relies on the transfer of authority within Thomson's original conception of the performance as classroom: observing others and exploring new techniques for or conceptual spaces within music making, creating a set of pedagogical maneuvers where participants recognize blown mind moments that invite autodidactic explorations and collaborative meaning construction.

My analysis of the Crank Sturgeon video adds to the emphasis on shifting pedagogical authority by recognizing how individuals respond to the pedagogical authority of the artist. When the audience breaks from Crank Sturgeon's performance instructions, for example, he responds by not only relinquishing his own authority as the performer (eventually) but by exploring the affordances of the new sonic landscape that emerges. His choice challenges the constructed nature of the audience/artist binary at the foundation of Western musical forms and aligns this learning ecology with the distributed and relational practices that participatory musical forms inherently amplify (Turino 52). Yet, in amplifying certain performers over others, Crank Sturgeon continues to assert his agency and shape the performance without reclaiming full authority. The shift in authority does not act as a pedagogy in and of itself. Instead, the performance produces both blown mind moments and subsequent spaces for exploration that serve as the mechanism for learning.

This article also raises questions as to who—or, more accurately, what—contributes to the co-constructive nature of free improvisation. The process of collaboration within noise music specifically does not only occur between performers, but between performers, audiences, instruments, spaces, and sound itself (Woods, "Reimagining Collaboration"). In turn, this non-anthropocentric framing of collaboration moves beyond extant understandings of free improvisation that solely rely on collaborations between humans and instead posits collaborative practices between any number of technologies, spaces, and knowledges without ignoring the role of human contributions. In its use of that framing, this analysis also implies that free improvisation itself changes within different contexts. When Bailey critiqued solo forms of improvisation, claiming that performers often fall back on familiar musical gestures instead of finding new forms of expression in the moment, he relied on certain assumptions about instrumentation. Specifically, he took a humanist stance that conceptualized the performer as holding full control over the instrument. But, as Novak attests, this framing of both the instrument and the performer dissolves within noise music as artists intentionally create instrumentation systems they cannot control (156). Free improvisation within noise therefore breaks from Bailey's conception. The co-creative nature at the heart of improv expands as human and technology (in the form of the instrument) work together as agentic actors to produce both music and meaning, again blurring the line between individuality and collectivity (Moten 129) at the level of techno-human relations. This holds significant importance for understanding free improvisation as a pedagogical or cultural technology. Rather than only acting as a discursive medium for performers, the free improvisation of noise creates a medium for new knowledges to emerge in dialogue between human and machine. As scholars continue to explore how different forms of free improvisation interact and intersect, I suspect the borders of this technology will continue to expand.

Crank Sturgeon's facilitation of a process of intertwined identity and musical development for the audience within the moment of performance exemplifies a crucial component of free improvisation and creative music (Basu; Niknafs, "Khas-o-Khâshâk") that simultaneously created space for his own development as a performer. His performance put a highly complicated and entangled pedagogical practice on display that mirrors the tensions described by Mitchell and remains both fully contained within the performance in one sense and is far more expansive in another. On one hand, the identity of the audience as participant ends as soon as the set does. On the other, Crank Sturgeon and the audience can easily replicate the new techniques in subsequent performances. The cultural specificity of knowledge associated with noise music therefore remains situated not only within the context of this musical tradition but within a specific performance context as well. In turn, future research into noise and free improvisation pedagogies (and music education more broadly) should consider how these shifting contexts reimagine not only pedagogical practices but musical knowledge itself.

Works Cited

Allen, Robert Gail. *Free Improvisation and Performance Anxiety Among Piano Students*. Boston University, 2010.

Anderson, Fred, and Paul Steinbeck. *Exercises for the Creative Musician*. 2nd ed., Many Weathers Music, 2010.

Attali, Jacques. *Noise: The Political Economy of Music*. University of Minnesota Press, 1985.

Atton, Chris. "Fan Discourse and the Construction of Noise Music as a Genre." *Journal of Popular Music Studies*, vol. 23, no. 3, Sept. 2011, pp. 324–42. doi: 10.1111/j.1533-1598.2011.01296.x.

Bailey, Derek. "Free Improvisation." *Audio Culture: Readings in Modern Music*, eds. Christoph Cox and Daniel Warner, Continuum, 2004, pp. 255–65.

Basu, Sharmi. *Decolonizing Sound: Experimenting Otherness in the 1960s and 2010s*. Mills College, 2014.

Bellerue, Bob. "CraNK STURGEON 6april07." 2007. *YouTube*, youtube.com/watch?v=ZBb5LILAcbI.

Bruyninckx, Joeri. "Crank Sturgeon." *It's Psychedelic Baby Magazine*, 15 Aug. 2017, psychedelicbabymag.com/2017/08/crank-sturgeon.html.

Candey, Scott E. "Chronicling US Noise and Power Electronics." *Fight Your Own War: Power Electronics and Noise Culture*, ed. Jennifer Wallis, Headpress, 2016, pp. 42–61.

DeRaadt, Jacob. "An Interview with Crank Sturgeon." *Tabs Out Cassette Podcast*, 23 Nov. 2015, tabsout.com/?p=10883.

Fischlin, Daniel, et al. *The Fierce Urgency of Now: Improvisation, Rights, and the Ethics of Cocreation*. Duke University Press, 2013.

Glăveanu, Vlad Petre. *Distributed Creativity: Thinking Outside the Box of the Creative Individual*. Springer International Publishing, 2014.

Hadfield, James. "The Nihilist Spasm Band: 51 Years Later It's Still Chaos." *The Japan Times*, 13 Mar. 2016. *www.japantimes.co.jp*, japantimes.co.jp/culture/2016/03/13/music/nihilist-spasm-band-51-years-later-still-chaos/.

Halverson, Erica, and Alecia Marie Magnifico. "Bidirectional Artifact Analysis: A Method for Analyzing Digitally-Mediated Creative Processes." *Handbook of Design in Educational Technology*, eds. Rosemary Luckin et al., 1st ed., Routledge, 2013, pp. 406–15.

Hickey, Maud. "Learning From the Experts: A Study of Free-Improvisation Pedagogues in University Settings." *Journal of Research in Music Education*, vol. 62, no. 4, Jan. 2015, pp. 425–45. *EBSCOhost*, doi: 10.1177/0022429414556319.

---. "The Effects of Group Free Improvisation Instruction on Improvisation Achievement and Improvisation Confidence." *Music Education Research*, vol. 18, no. 2, June 2016, pp. 127–41. Doi: 10.1080/14613808.2015.1016493.

Histamine, Pharmar. *Art Ensemble of Chicago Live in Detroit at El Club for Trip Metal 3*. 2018. *Internet Archive*, archive.org/details/ArtEnsembleTripMetal3.

Kanellopoulos, Panagiotis A. "Freedom and Responsibility: The Aesthetics of Free Musical Improvisation and Its Educational Implications—A View from Bakhtin." *Philosophy of Music Education Review*, vol. 19, no. 2, Nov. 2011, pp. 113–35.

Keep, Andy. "Instrumentalizing: Approaches to Improvising with Sounding Objects in Experimental Music." *The Ashgate Research Companion to Experimental Music*, ed. James Saunders, 1st edition, Routledge, 2009, pp. 113–30.

Klett, Joseph, and Alison Gerber. "The Meaning of Indeterminacy: Noise Music as Performance." *Cultural Sociology*, vol. 8, no. 3, Sept. 2014, pp. 275–90. doi: 10.1177/1749975514523936.

Lewis, George E. "Improvisation and Pedagogy: Background and Focus of Inquiry." *Critical Studies in Improvisation / Études Critiques En Improvisation*, vol. 3, no. 2, 2, Dec. 2007, pp. 1–5. *www.criticalimprov.com*, doi: 10.21083/csieci.v3i2.412.

Mitchell, Roscoe. *Roscoe Mitchell by Anthony Coleman*. Bomb Magazine, 1 Apr. 2005, bombmagazine.org/articles/roscoe-mitchell/.

Moten, Fred. *In The Break: The Aesthetics of The Black Radical Tradition*. University of Minnesota Press, 2003.

Niknafs, Nasim. "Free Improvisation: What It Is, and Why We Should Apply It in Our General Music Classrooms." *General Music Today*, vol. 27, no. 1, Oct. 2013, pp. 29–34. Doi: 10.1177/1048371313482921.

---. "'Khas-o-Khâshâk': Anarcho-Improv in the Tehrani Music Education Scene." *Punk Pedagogies: Music, Culture and Learning*, edited by Gareth Dylan Smith et al., Routledge, 2018, pp. 30–42.

Novak, David. *Japanoise: Music at the Edge of Circulation*. Duke University Press, 2013.

Nyman, Michael. *Experimental Music: Cage and Beyond*. Cambridge University Press, 1974.

Petitfils, Brad. "Researching the Posthuman Paradigm: The 'Subject' as Curricular Lens." *Posthumanism and Educational Research*, edited by Nathan Snaza and John Weaver, Taylor and Francis, 2015, pp. 30–42.

Roberts, Matana. *Interview: Matana Roberts*. Interview by Birkut, Tiny Mix Tapes, 20 Nov. 2013, tinymixtapes.com/features/matana-roberts.

Sawyer, R. Keith, and Stacy DeZutter. "Distributed Creativity: How Collective Creations Emerge from Collaboration." *Psychology of Aesthetics, Creativity, and the Arts*, vol. 3, no. 2, May 2009, pp. 81–92. Doi: doi.org.ezproxy.library.wisc.edu/10.1037/a0013282.

Space. "An Interview with Crank Sturgeon, SPACE's June Artist in Residence." *Space*, 1 June 2012, space538.org/uncategorized/an-interview-with-crank-sturgeon-spaces-june-artist-in-residence/.

Taylor, Phillip. "The Genesis of Power Electronics in the UK." *Fight Your Own War: Power Electronics and Noise Culture*, edited by Jennifer Wallis, Headpress, 2016, pp. 187–98.

Thomson, Scott. "The Pedagogical Imperative of Musical Improvisation." *Critical Studies in Improvisation*, vol. 3, no. 2, 2007, pp. 1–12.

Turino, Thomas. *Music as Social Life: The Politics of Participation*. University of Chicago Press, 2008.

Woods, Peter J. "Conceptions of Teaching In and Through Noise: A Study of Experimental Musicians' Beliefs." *Music Education Research*, vol. 21, no. 4, Aug. 2019, pp. 459–68. Doi: 10.1080/14613808.2019.1611753.

---. "Towards a Process Model of Developing Artistic Practice Within Experimental Music Communities." *Interdisciplinarity in the Learning Sciences: The International Conference of the Learning Sciences (ICLS) 2020*, International Society of the Learning Sciences, Inc., 2020, pp. 755–56.

---. "Reimagining Collaboration through the Lens of the Posthuman: Uncovering Embodied Learning in Noise Music." *Journal of Curriculum and Pedagogy*, vol. 18, no. 1, Jan. 2021, pp. 45–65. Doi: 10.1080/15505170.2020.1786747.

Wright, Ruth, and Panagiotis Kanellopoulos. "Informal Music Learning, Improvisation and Teacher Education." *British Journal of Music Education*, vol. 27, no. 1, Mar. 2010, pp. 71–87. Doi: 10.1017/S0265051709990210.