

Bodyminds in Movement

Embodied Cognition in the Practice and Discourse of Contact Improvisation

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ABSTRACT

Contact Improvisation (CI) has grown into perhaps the most influential form of contemporary dance improvisation, yet is relatively seldom reflected upon in academic discourse. This article argues for a closer understanding of embodied and environmental aspects of consciousness and lived experience in the study of CI. Broaching the challenge of capturing such corporeal insight in the form of written analysis, this article is an attempt to reflect upon CI's potential contributions to humanities thought on embodied cognition. Embodied cognition theories assert that embodiment constitutes a fundamental and inseparable part of human cognitive and perceptual capacities, and thereby of human consciousness. CI calls to experience the body as "an intelligent practitioner rather than instrument" (Novack 1990, 185), with no full separation between "physical" and "mental," nor between sensation, perception, and thought. CI may thus offer a highly potent territory for manifesting and further examining the radical inseparability between minds and bodies. First, this article provides an extended introduction of CI, discussing the difficulties of defining the form, the interconnectedness of its practice and discourse, and the challenges these pose for "objective" or "unbiased" academic analysis – which CI does not allow for. Next, the author turns to the link between CI and the writings of two central philosophical thinkers on embodied cognition: Alve Noë and Brian Massumi. This article proceeds to examine, through the link to CI, key tensions between Noë's and Massumi's framing of the inter-relationship between the somatic experience of movement and vision, perception and navigation. Understandings of this inter-relationship relate to the question of whether highly attuned embodied experience can potentially escape the limits of phenomenology. The author concludes by laying out arguments for both answers to this question, fusing Noë's and Massumi's positions to the tensions between conceptualizations of CI as "physics" and "chemistry."

KEYWORDS

Contact Improvisation, Embodied Cognition, Enactive Perception, Proprioception, Somatic Research, Post-Modern Dance

INTRODUCTION

Reality is not about reflection or correspondence. It is about participation. Differential participation. In what way does a given geometry's effective resonance with intensive movements in the world allow us to extend them, in our orientations, memories, and brain-lagged awareness, toward their (and our) creative variation?

Brian Massumi, *Parables for the Virtual* (2002, 205).



Looking for consciousness in the brain is like looking for dance in the legs.

Alva Noë, *Life is the Way the Animal is in the World* (2008).

Embodied cognition (EC) is a blanket term for an interdisciplinary body of scholarly work, drawing from phenomenology, cognitive science, perceptual psychology and studies of movement, dance and corporeal experience (Shapiro 2010). EC theories generally assert that embodiment constitutes a fundamental and inseparable part of the human cognitive capacity for perception and thought.

Cartesian dualisms between body and mind, thought and sensation, and spirituality and materiality, which have dominated Western thinking for centuries, are increasingly being cast into doubt. Fueled by findings in cognitive studies and new approaches to the substance of matter and lived experience in humanities studies, EC utterly dismisses the validity of such sharp divisions and offers us alternative interwoven structures to grasp the mind-body connection through. Many EC theories view the body as inherently “thoughtful” and thought as inherently material. This holistic approach, often referred to as “mind-bodies,” or “body-minds,” considers the human being as a complex and unified system.

This article explores the affinity between academic theories of embodied cognition and Contact Improvisation – a free-form contemporary dance method. I argue that tracing the strong links between those two bodies of knowledge can provide us with refined understandings of the inter-relationship between body, mind, matter, and consciousness. My analysis follows two relatively radical takes on EC in the writings of contemporary philosophers: Alva Noë and Brian Massumi. Noë is first and foremost a phenomenologist, focused on cognition and perception in lived experience. Massumi is a New Materialist thinker who, much like the late Deleuze, is fascinated with the findings of cognitive science, often employing them to solidify his abstract theorizations.

Despite strong disciplinary, stylistic and theoretical differences between the two, Noë and Massumi both strongly problematize the notion of separation not only between mind and body, but also between “exterior” and “interior” spaces of consciousness, asserting that the threshold between consciousness and environment should be understood as soft and fuzzy. In the spirit of this shared position, Noë is perhaps best known for repeatedly asserting that “you are not your brain,” and that perception and consciousness are not something that happens to us, but rather something we *make happen*, in interaction with the world (2004, 1; 2008). This view is well summarized in Noë’s 2008 video interview for *Edge* magazine:

We can’t explain consciousness in terms of the brain alone because consciousness doesn’t happen in the brain alone. [...] There is nothing inside us that thinks and feels

and is conscious. Consciousness is not something that happens in us. It is something we do.

For experiential evidence in support of this position, Noë often points to dance:

A dancer is locked into an environment, responsive to music, responsive to a partner. The idea that the dance is a state of us, inside of us, or something that happens in us, is crazy. Our ability to dance depends on all sorts of things going on inside of us, but that we are dancing is fundamentally an attunement to the world around us. [...] [Likewise], human consciousness is something we enact or achieve, in motion, as a way of being part of a larger process (Noë 2008).

From within the immersive flow of dancing, the totality of one's belief in any kind of Cartesian dualism indeed seems far less justifiable. When submitting our attention to movement, dance can flood dimensions of the lived experience of movement – and of sensory and perceptual experience at large, which Noë and Massumi deem inseparable from movement – that are often left unnoticed. The experience of dance, then, can be taken as an invitation into the depths and ramifications of embodied cognition.

Rather than delving into the theoretical sources and justifications of Noë and Massumi's position, my paper is primarily concerned with the issue of accessing it in lived experience and capturing such experience in social and written discourse. Therefore, in an attempt to emphasize and expand upon this invitation, my paper links the writings of Noë and Massumi to Contact Improvisation (CI). I believe that the CI jam is highly fitting territory to explore the functionalities and potentialities of minded-bodies in movement, and thus it is a potent case-study for EC and environmental understandings of consciousness. As a longtime practitioner of CI, a jam experience of some form or another is often the first thing that springs to my mind, whenever I encounter a new idea in the field of EC. This article thus attempts to broach CI as a sort of channeling of embodied cognition into a movement method of embodied discourse, and touch upon insights and ambiguities uncovered by this connection, on both ends.⁴⁷

The following part of this paper introduces CI through the uniquely fluid discursive structure developed to handle the aforementioned challenge of discussing and describing a process-based method of constant exploration through movement. In light of this structure, I will briefly explore the issue of academic writing on CI and argue against Bojana Cjevic's critique that it is de-validated

⁴⁷ In my reflection on CI, I mostly address the large-scale jam as a generalized paradigm for the form that defines much of the community practice. As an example, I offer Dan Farberoff's documentation of a jam duet between Olivia Court-Messa and Yochai Ginton during the 2016 Freiburg CI festival. This video, made as part of Farberoff's "CI2I: Capturing Contract Improvisation" project, features active camera work in constant movement, that affectively situates the viewer closer to the experience of this expert dance improvisation moment. <https://vimeo.com/180032667>
Farberoff, Dan. *CI2I: Yochai and Olivia*. Short film. Performed by Yochai Ginton and Olivia Court-Messa. Berlin, 2016.

due to “reliance on practitioner knowledge” (2015). This expanded introduction paves the way for an exploratory discussion on how some central ideas by Noë and Massumi are reflected in the unique range of experience offered by the CI jam.

CONTACT IMPROVISATION AS CORPOREAL DISCURSIVE SYSTEM

Contact Improvisation is a somatic research method, created by Steve Paxton and a group of dance students in the U.S. bay area during the early 1970s. CI was developed as a free and communal movement practice, heavily influenced by the aftermath of the 1960s’ social revolution. Over the decades, CI grew into an international movement of thousands of participants, with hubs in every continent and particularly all over Europe.⁴⁸ As it grew, CI mutated from a practice of mostly professional and semi-professional dancers into a “people movement.”⁴⁹

Nita Little defines CI as “training attention-to-attention while moving” (2014, 247). The core technique is based upon dedicating attention to a constant flow of improvised communication with physical forces, and between multiple bodies that dance and navigate together. Typically, this process of moving-together is integrated by a ‘rolling point of contact’: improvisers maintain a dynamically shifting point of touch between their bodies throughout the dance. CI thus employs touch as a constant sensory exchange to structure a feedback-loop of movement and sensation, which is both freeform and informed by an arsenal of techniques. CI’s purest form of practice is the “jam” –an open space where dances (most often in duos, but also in solos, trios or any other form) are allowed to form and break freely. Dances tend to strongly affect one another and fuse together, forming a sort of over-arching atmospheric coherence, which Little refers to as the jam’s “ecology of movement” (2014, 251). Since many of CI’s most defining characteristics are also definition-defying, attempts to describe the essence of CI are inevitably somewhat broad and obscure.⁵⁰ CI fundamentally emphasizes constant being-in-movement and in-process, even during moments that

⁴⁸ CI’s spread is made evident in the ‘world jam map’ on one of its central websites, [contactimprov.com](http://www.contactimprov.com). This event list is far from complete or up to date, but provides a general picture of the extent of CI’s spread. A Facebook ‘groups’ search for CI similarly reveals a plentitude of international activity, with US groups actually lagging behind European groups in terms of membership count. CI festivals, yearly events typically spanning 5-6 days and partially designed to allow for an exchange with teachers and participants from abroad, emerged in the early 2000s and quickly proliferated and became central to the culture. As a result, Novack’s analysis of CI as a product of American culture – while still pertinent to understanding CI’s origins and early years – no longer encapsulates the current culture of the practice, which is cosmopolitan in a predominantly Western sense, but also diversified beyond US-centrism.

<http://www.contactimprov.com/worldjammap.html>

⁴⁹ Inclusivity of a broad spectrum of movement skills and acrobatic know-how – including disabled bodies – became a stronger part of the culture as its social aspects grew more central. The age group diversified as the form itself aged, and participants in their 50s or 60s are no longer uncommon. In addition, CI now integrates participants with various disabilities, for which it is considered to be of high therapeutic potential. Some object to defining CI as a dance form, and refer to practitioners as ‘movers’.

⁵⁰ CI’s definitional challenge can be gleaned from the clumsiness and vagueness of the attempt to provide an all-encompassing definition in CI’s Wikipedia page, which describes it as oscillating between “experimental dance [...] theatrical form [...] educational tool [...] social dancing [...] (and) awareness practice”, depending “on the moments and personalities who practice it.”

https://en.wikipedia.org/wiki/Contact_improvisation

appear as stillness⁵¹ (Novack 1990, Cjevic 2015). As Little argues, a thing in constant movement is never fully identical to any static perception of its identity.

Sharing the Dance: Contact Improvisation and American Culture, Cynthia Novack's insightful account of CI's early years, describes a pivotal decision that shaped its cultural development around this resistance to a stable identity. CI's founders opted to refrain from establishing a formal organization that would control (and monetize) how the form is taught and practiced, even as its growth took it beyond the sphere of their direct influence (Novack 1990, 79–80). As a result, unlike other successful dance improvisation methods such as the Foresythe Technique or Gaga, CI is far from being “the Paxton method” (84).⁵² Rather, CI can be described in contemporary terms as an “open-source” movement method: technically, anyone can appropriate the form by teaching classes or facilitating a jam. In long-term practice, the community's involvement, initiative, understanding, and experience define the form's “source code.” Hence, CI remains largely “organized without having an organization” (Novack 1990, 199), which befits a movement ideology that emphasizes “letting the dance happen.” CI can thus be described as tangibly manifesting a process of what Deleuze (following Nietzsche) terms as *becoming*, which justifies its characterization as a “post-modern” dance method (226–229).

Practices titled “Contact Improvisation” are not as chaotically divergent as the above descriptions might suggest. In 1975, CI's founders established *The Contact Quarterly*, a magazine that played a pivotal role in the shaping of CI into a community (Novack 1990). This remains the main source of writings on the subject to this day. While privileging the core founder group's ideology and points of view on CI's essence, the magazine functions a stage for other voices and dedicates space for debate on definitions. CI is thus constituted by a certain canon, shaped by constant discursive dialogue in both writing and practice. This fluid canon forms a certain range of what CI should and should not be in the eyes of its community, and thus of what experience it manifests in practice. Through this two-way connection, CI is aspiring to make concepts dance and movements speak, welcoming flux, multiplicities, and instabilities while also attempting to maintain clarity through attempts to maintain a shared understanding of where the “center of gravity” is.

⁵¹ The emphasis on experiencing movement in stillness is further evident in Steve Paxton's paradigm of the “small dance” (Cjevic 2015, 136) – where the dancer(s) make no willful movement and instead focus on empathizing the subtle movements that occur when refraining from holding oneself in a stable posture.

⁵² Paxton's influence in the initial years as founder and leader of CI are strongly empathized by Novack (2010), despite his objection to hierarchy and unwillingness to “play the part.” Nowadays, however, Paxton is barely actively involved in CI, having dedicated most of his attention over the last decades to a spinal movement technique developed from his CI practices. While two of his core students – Nancy-Stark Smith and Nita Little – remain highly regarded central figures (writings by both feature in this essay), neither carries even the degree of reluctant authority, which Novack ascribes to Paxton during CI's early days.

CONTACT IMPROVISATION IN ACADEMIC WRITING

I want to be able to write from inside the movements of an improvisation [...] But I keep finding myself back here walking the line, on the page, trying to make pens pirouette, words walk and ideas bounce and split open, like dancing can do. [...] I'm curious to see [...] how we can keep the dance moving, through the hieroglyphs and into our mother tongue.

Nancy Stark-Smith, 'Editor Note,' *Contact Quarterly* 10, no. 2

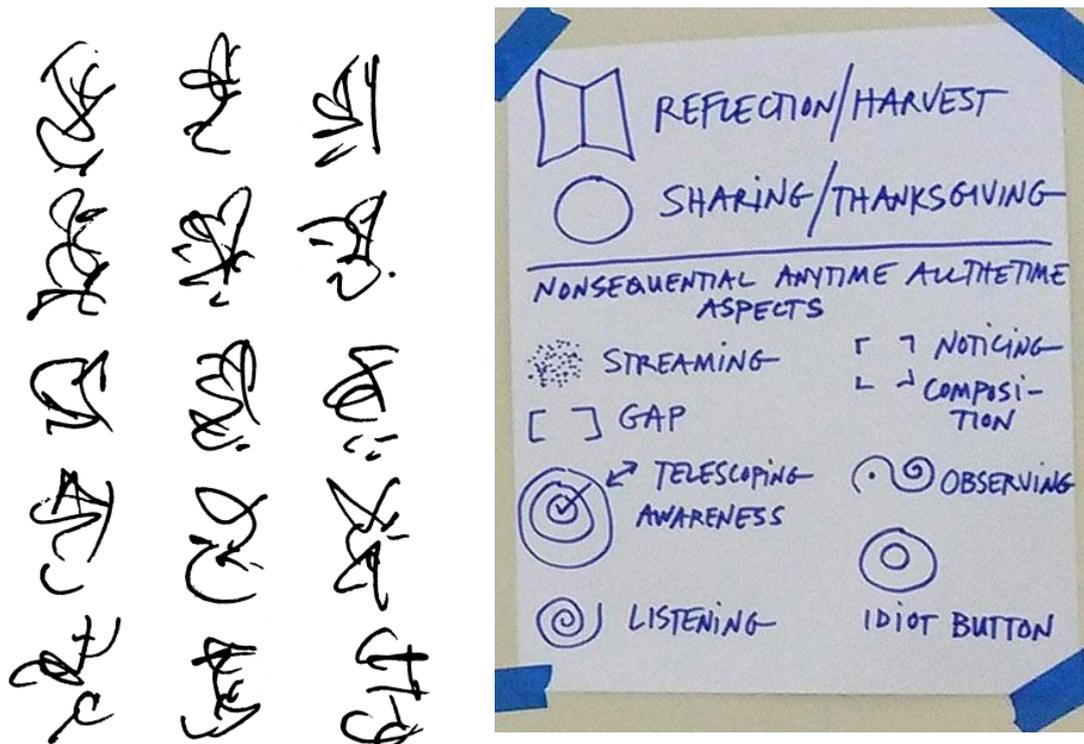
As the *Contact Quarterly* editor and one of CI's founders and most influential figures, Stark-Smith's remarks on her fascination and frustration with writing about CI are indicative of broader characteristics of the CI community's approach to writing, constituted by the inter-relationship mentioned above between practice and discourse. Firstly, most writing about CI can be considered as an attempt to "diagram without stilling" (Massumi 2002, 134), to echo the constant movement and being-in-process experienced within the moment of improvised dance. The hieroglyphs employed in Stark-Smith's teaching and writing are a prime example of attempts at achieving this.

CI movement-gestures are as resistant to meaningful capture by analytic annotation systems as the concept of CI is to capture by definitions. To broach and recognize this challenge, Stark-Smith's hieroglyphs describe somatic flows of movement and attention through symbols of "lived abstraction": open to interpretation and manifestation within a given moment. Secondly, writing on CI is usually done by practitioners and for practitioners - explicitly leaning on mutual familiarity with the tangible experience of practicing the form. Though academic writing on CI cannot assume the reader to possess such experiential knowledge, the majority of academic authors nonetheless rely on personal experiences of CI practice as a crucial resource. The three primary sources on CI employed by this paper exemplify this tendency: Albright is a longtime practitioner, Little is amongst CI's founders, and Novack's text is an ethnography, based primarily on first-person interviews and on the writer's own experience. While more analytic, such writing is largely consistent with Stark-Smith's attempt to write from "inside the movements."

The challenges and limitations this aspiration entails are perhaps the primary reason for the relative shortage of academic writing on CI. Despite being perhaps the most prominent contemporary dance improvisation form (Cjevic 2015, 129) due to its international community and high acclaim, CI can hardly be considered an established field of academic study.⁵³ For example, Novack's text is the only book-length academic project fully dedicated to it.

⁵³ Empirical research in cognitive science (Łuczniak 2015; 2016, Torrents 2010) and psychology (Ceder) is gathering interest in CI and may provide valuable data, but such work ultimately systemizes the reliance on lived experience, rather than overcome it (un-coincidentally, Łuczniak and Ceder both double as CI teachers).

Bojana Cjevic's writing on contemporary dance improvisation techniques is highly critical towards this "monopoly" of practitioners' knowledge" in academic work on CI, which she argues causes "a lack of proper theoretical study, of a comprehensive systemization [...] (and) consistent academic work" (Cjevic 2015, 129). Cjevic attempts to fill this void with a critical analysis that unfavorably compares CI to the Foresythe technique (a formal dance improvisation method, focused on projecting mobile geometric structures and to a lesser extent on somatic experience). Her comparison stresses the "aesthetic of complexity, richness and sophistication" of Foresythe's "technology of composition" (Cjevic 2015, 140), which forms a more layered spectatorial



Figures 1 & 2 – Nancy Stark-Smith's Hieroglyphs. The left is taken from *Contact Quarterly* 7, no. 2 (Winter 1982; in Albright 1989: 50), the right from her contemporary instructions to the "Underscore" jam format.

relationship than CI's "aesthetics of spontaneity." While this may be true from the perspective of Cjevic's research on expressive choreography and performance, she is comparing apples to oranges. CI is a participatory practice, predominantly focused on the generation of embodied experience and the flow of physical sensation and interaction, rather than on shapes and designs bodies create for an audience (Albright 1989, 39). CI is taught in most contemporary dance programs, and its influence is evident in many performances, yet the pure form's interest in performative aesthetics and compositions (that defines methods like the Foresythe technique) is secondary.⁵⁴

⁵⁴ CI originally proliferated through a series of audience performances (*You Come, We'll Show You What We Do*) by Paxton & co, whose rhetorics of sharing the process of CI's continuing creation and egalitarian aesthetics (such as arranging the audience in a circle and giving up the stage as well as any special costumes or set decorations) already

The vast majority of academic writing on dance and performance is done from the position of an unbiased/uninvolved spectator, who, having passively sat and watched the show(s), can now critically assess its significance, meaning, or quality. The CI jam, however, is distinctly not a performance: it invites spectators to join the dance and dancers to join the sidelines at any moment and without a clear distinction, and treats spectatorship as inherently active and participatory in its own right. There is no crystalized or finalized form to assess with claim to objectivity here, as any given jam clearly produces a widely different experience for any given participant (even the basic guidelines softly governing the space differ between jams and countries). Hence, CI cannot be fully grasped from a position of passivity or uninvolvedness: much like Noë's view of consciousness, CI is inherently *something we do*. And much like Massumi's statement on reality at large (which this paper opened with), it is all about "differential participation."

Cvejić's attempt at conducting a "proper theoretical study" of CI's rhetoric and performance from the stance of an "uninvolved spectator" (that is, lacking the so-called-bias of "practitioner knowledge"), is somewhat absurd, since *CI does not allow for neutral spectators* (nor requires any unique skills to participate and gain knowledge in). Hence, CI's interactive aesthetic experience – even at moments of spectatorship – is derived from a sense of agency⁵⁵, and from the possession of embodied knowledge of CI's movement affordances (or the open invitation to acquire it).⁵⁶ Cvejić's critique of CI for being "implicitly phenomenological (by) favoring the self-consciousness of the dancer" (128) and comparison of its aesthetics to "tapping into the emotional life of the artist" in abstract expressionism (134) completely misses out on the significance of this distinction. Forms structured around active interaction differ from representational art forms, and are inevitably and unapologetically "phenomenological." In CI's case, strictly sticking to the "objective" or "unbiased" academic perspective leads to an analysis which seems inherently un-informed. I, therefore, assert, in sum, that despite the academic need for a degree of critical distance, it is invalid

expressed the form's participatory ethos. Gradually these performances developed a normalized structure which spoiled their reliance on contingency, but the group remained reluctant to choreograph elements in advance. Meanwhile, contemporary dance audiences became somewhat familiarized with the idea of the form and grew bored when it made little effort to produce spectatorial novelty. The number of dedicated CI performances dwindled as a result, and their production is currently a highly secondary aspect of CI practice. In parallel, CI techniques grew to feature prominently in many contemporary dance training programs as a toolset to work with weight-shifting and momentum, resulting in CI techniques and aesthetics being commonly integrated into (typically somewhat or entirely choreographed) contemporary dance performances. For a video-dance example, see Rogerio Silva's *Abandon* and *Edifice* (<https://www.youtube.com/watch?v=S28-OgVDAek>). However, such integrations are at the peripheries of CI's cultural canon and should not be confused with its dedicated practice. This paper, therefore, focuses on analyzing the more fundamental form of the CI jam.

⁵⁵ This is taken further in Little's view, according to which CI aspires to what Karen Barad terms "intra-action," where "the agencies of observation are inseparable from that which is observed" (Little 2014, 253). In this sense – as in quantum mechanics and the metaphor of Schrödinger's Cat – observation and action become two parallel aspects of the same attentional, differential practice at the heart of CI's aim.

⁵⁶ The CI jam, in this sense, can perhaps be regarded as a form of community art or applied art. Cvejić's focus on CI performances and contempt for CI's participatory culture and therapeutic aspects and their unfavorable comparison to avant-garde performances are symptomatic of a broader dismissive approach to applied arts in most academic and intellectual art discourse.

to examine CI through a method that claims analytic neutrality. This position informs my choice of argumentation structure and style. Some elements of CI simply cannot be captured by succinct, analytic statements, and are far better broached by attempts at metaphor and at evoking embodied imagination. In pursuing such attempts, this paper is openly and inevitably guided by my personal experiences of CI (though it is by no means focused on specific personal elaborations).

CI AND EMBODIED COGNITION

In the context of Noë's and Massumi's thought on embodied cognition, the academic challenge posed by CI may also function as a valuable asset. As evident by the rich body of writings in *Contact Quarterly*, CI does not resist language or written discourse like Cjevic claims (2015, 142). It resists, rather, the split between conceptualizing and experiencing, or between verbal and corporeal literacies. The way CI's embodied knowledge constantly shapes this two-way relationship is in line with Noë's argument that "understanding a concept may be much more like possessing a practical skill than we suppose" (2004, 199).

CI's holistic approach to the relationship between mind and body is critiqued by Cjevic for treating the body as a site of nature and the mind as a site of culture, and romantically aspiring for purely "natural" movement. Such a stance – which indeed seems implied in some early quotes by Paxton (Cjevic 2015, 132-138) – is problematic in its support of a simplistic body-mind and nature-culture divide. As a practice that highlights the training of reflexes and instant-responsiveness, CI would do well to remember Merleau-Ponty's point that even reflex-responses, however rapid, are always gestural and "condemned to meaning" – and hence determined by culture as well as nature. They express certain "modalities of instinct," in accordance to interpretation of environment and orientation towards a certain behavioral setting (Noland 2009, 56–57). CI interactions should be understood as strongly influenced both by its own culture as a practice and social movement, and by the broader context of cultural relation to movement.⁵⁷ Unlike Paxton's early rhetoric which Cjevic focuses on, the majority of contemporary academic writings on CI (such as Albright's writing and Susan Leigh Foster's concept of "bodily-mindfulness") adhere to this view. They often argue that CI channels movement in a primordial sense, but without presuming this claim to mean total independence from the domain of culture or a return to unregulated nature. Both Noë and Massumi similarly address primordial aspects of movement as crucial to their thought, while rejecting any type of mind-body or nature-culture dichotomy. This is particularly evident, for example, in Massumi's statement that "the most material of experience [...] is already positively

⁵⁷ In my own experience, I was surprised to find that certain movements that I considered universal when practicing CI in Israel – such as the "natural" way to offer a lift – are in fact exercised differently in different countries, as well as in the implicit etiquettes acquired through different teachers. While CI clearly leans on universal rules and action-logic of bio-mechanics (movement in relation to physical forces), and, conversely, allows the discovery of every body's patterns of movement as somewhat idiosyncratic, it is also always inevitably aligned to a certain cultural movement lexicon.

sociocultural. [...] we are capable of operating socially and culturally directly on a level with matter” (Massumi 2002, 199). Much like the problematics of analytic writing on CI, there is a kind of irony in trying to communicate radical notions of embodied cognition, purely by putting pen to paper (or fingers to keyboard). Should the prospective reader be expected to grasp new and radical views on mind-body connections purely through the rather Cartesian practice of sitting still and contemplating them?

CI and EC both assert that there is never such thing as complete stillness in our lived experience, and that thinking is itself a channeling of movement. Nonetheless, it is a difficult challenge to think in ways that de-territorialize thought, and to translate such thought into discourse and particularly writing, an inherently still medium. Substantiating the link between the embodied practice of CI and the theoretical insight of EC may aid both sides in broaching this challenge. Contextualization through the thought of Massumi and Noë could provide CI discourse with a solid and nuanced theoretical groundwork to reflect upon its channeling of mind-body relationalities. On the flipside, viewing CI as a territory of EC in accentuated practice could allow for grounding, solidifying, and testing out many of its pivotal theories and concepts.⁵⁸

I will now turn to examine Noë’s and Massumi’s affinity with CI. As both sides of this connection are already complex as-is, and as I find the connection quite natural and strong, this rather brief overview is focused on key dimensions, in which linking CI and EC are fitting and mutually insightful.⁵⁹ For the sake of brevity and of achieving a degree of depth, I focus on the interrelationalities of movement and somatic experience with vision, perception and navigation – a key topic in the writing of both thinkers, and in the practice of CI.

NOË: ENACTIVE PERCEPTION

The central argument in Alva Noë’s theory of enactive perception is that “all perception [...] is intrinsically active. Perceptual experience acquires content thanks to the perceiver’s skillful activity” (Noë 2004, 3), and that “the world makes itself available to the perceiver through physical movement and interaction [...] all perception is touch-like in this way” (1). The CI jam can be

⁵⁸ Alva Noë, having developed an interest in dance improvisation methods, very enthusiastically commented on his first experience of CI in a video interview for the *Embodied Techne* series, published on Youtube on July 2012. Noë stresses the strong methodological connection between CI and his philosophical teachings: “That was the first time I had engaged with Contact Improvisation, but it is the way I philosophize. I *think of philosophy as a form of Contact Improvisation*. Philosophy is not about the truth, or the discovery – it’s about the process, and it’s about the transformation that happens in you as you work towards the process. What is that transformation? It’s understanding, it’s seeing connections, it’s knowing your way around. So my whole philosophical project just led me to a position that led me to have this experience.” However, to the best of my knowledge, Noë has not mentioned CI in his professional writing to date (owing, perhaps, to his relative lack of this much-needed experiential knowledge of the subject).

⁵⁹ There may be other ways in which CI, or parts of its discourse and/or practice, “argue against” some dimension of EC, but I believe that they are relatively minor, and opted against searching them out to achieve an appearance of “balance.”

perceived as a highly literal example of this: perception, movement and touch are inseparably woven together to form an experience of living, embodied space, constantly constituted by a multiplicity of interactions with material forces and other bodies.

Noë cites the phenomena of experiential blindness – failing to see, or to properly orient through seeing, as a result of a deficiency in applying “implicit practical knowledge of the ways movement gives rise to changes in stimulation” (8) – to support the argument that “to perceive you must be in possession of *sensorimotor bodily skill*” (11). Expert CI practitioners may provide a complementary opposite example to strengthen this claim: having honed their sensorimotor movement skills, they are able to rapidly interpret visual (and other) cues of movement in space and adjust their movement to respond in accordance.

This orientation through keen kinesthetic awareness is an accentuated manifestation of Noë’s claim that “touch acquires content through movement” (97), and that their integration allows us to experience and navigate distance relationalities in space through implicitly understanding the amount and quality of movement that would bring an object we perceive into contact (97). Understanding our ability to interpret sense-data as intertwined with the experience of movement could also explain how many of CI’s attentional somatic practices (despite having seemingly little to do with technical mastery of movement combinations) relate to improvisers’ ability to excel at navigating with, through and around their dance partners, while avoiding any clashes with other dancing bodies in a collectively shared space of great complexity.⁶⁰ In this sense, all objects of sight are experienced as action affordances” (106), and all perception appears through being deployed within “a network of sensorimotor contingencies” (112) – in which, as Massumi puts a similar idea, “*practice becomes perception*” (Massumi 2002 189, original emphasis).

Nita Little makes a very similar point by arguing that contact improvisers “actively spatialize” by sensing the complexity of interactions and trajectories, through their movement, and “spatiotemporal volume” (Little 2014, 251) – attention to touch essentially becomes both awareness to space and transformation of it. In this light, many aspects of Noë’s intricate analysis of “enactive perception” can potentially be inquired into by studying the CI as a space of keen awareness and acquired adaptivity to unusual, (often rapidly) shifting forms of embodied dynamics and contingencies.

⁶⁰ Even in dense jams where many bodies travel, often at disorienting angles and high speeds, the frequency of clashes is surprisingly low. The jam space appears as a shifting jigsaw puzzle of body parts, moving in “polyrhythmic” (Little 2014, 251) synchronicities of finely tuned reactions and decisions. An implicit awareness to the jam’s “ecology of movement” – which reconfigures the experience of time as well as space – is felt even in dances that appear immersed in independent flow, as energies tend to shift in waves: “multiple spatiotemporal trajectories create a single music with no plan” (Little 251).

MASSUMI: PROPRIOCEPTIVE NAVIGATION

Massumi's analysis of spatial orientation in *Parables for the Virtual* (2002) strongly aligns with CI's notion of 'actively spatializing' through attention to touch in movement. Massumi views our capacity for navigation as functioning through two parallel, cross-referencing yet not fully calibrated systems: the proprioceptive system – “the referencing of movement through its own variations” (Massumi 2002, 180) – and the exo-referential system, which relies on a Euclidean understanding of space geometry and on positioning oneself within cognitive maps, constructed through visual cues.

If, as found by a study Massumi cites to support this claim, we orient best in an empty space, whose shape is “indeterminate – except for the rhythm of movement through it, in its twisting and turnings” (180) – the CI jam is an ultimate example. It is thus a potent paradigm for how proprioceptive feedback – underscored by the form's inclination to direct touch and sharing of weight – shapes contingent awareness, that is more fundamental than the vision for our capacity to navigate space. These manifest as what Noë would call “non-propositional know-how” (122), or in Massumi's terminology, “biograms” (rather than exo-referential diagrams): “bodily memory of movements, one of contortion and rhythm rather than visible form” (179). Massumi maintains that “biograms cannot be described without resorting to topology: centers folding into peripheries and out again, arcs, weaves, knots, and unthreading” (179). These choices of imagery could easily have been descriptions of CI technique, which commonly utilizes “spiraling, curving pathways” (Albright 1989, 40) and foldings and unfoldings through the body's center of gravity. Indeed, it may be fitting to think of CI as a topological relationality: bodies stretch, bend and knot their geometrical figures while maintaining connectedness, and spatial experience is radically warped but never torn.



Figure 3 – bodies folding and unfolding in the CI jam space. Screenshot from Dan Farberoff's film project, 'CI2I', documenting the 2016 Freiburg CI festival.

In this line, we can rethink the “willingness to be disoriented and embrace of being off-balance” (Albright 42) and falling that characterizes CI: the constant play with verticality, weight-shifting and gravity alienates the exo-referential system, crippling the dancer’s ability to cognitively map her position in space, and forcing a reliance on more intuitive and immediate navigation through the movement-reference system and the affordances and reflexes that guide it, which CI practice focuses on honing. CI’s mode of “getting lost” provides what Massumi describes as a momentary grounding in the material and impractical dimension of reality, through unfolding the experience of space away from the narrow, Euclidean sense that typically dominates our conscious awareness.

The jam’s “ecology of movement” (Little 2014, 251) manifests as a “vector space not containable in metric space” (183), which opposes a static, measurable, diagrammatic positioning for as long as the movement sustains, fashioning a qualitative space of variation. Hence, orientation within the jam space reaffirms Massumi’s perspective on the centrality and significance of proprioceptive navigation being revealed in moments where the representational understanding of space is lacking, along with his claim that “movement is not indexed to position. Rather, position emerges from movement” (Massumi 2002, 180). More generally, as my introduction of CI in practice and discourse has attempted to show, the method aspires to create territories of lived abstraction in concrete interaction, and form traveling⁶¹ understandings of the unformulated. In doing so, I argue that CI operates through the oxymoronic yet pragmatic logic that is, according to Massumi, “necessary for grasping the minded body’s mode of reality” (2002, 207). In this light, CI may be viewed as a potent strategy to provide one sort of experiential answer for a key thread of inquiry in Massumi’s writing: “How can the literate become literal and the literal literate in two-way, creative interference?” (199).

KINESTHETIC SYNESTHESIA

My analysis showcases an important difference between the two thinkers, regarding their approach to vision. For Massumi, visual awareness is inherently representational and Euclidean, and thus interruptive to proprioceptive navigation and awareness (182) – when we wish to focus on embodied orientation, we tend to close our eyes. For Noë, there is no such conflict, but rather what can be defined as an “alliance” between visual and movement skills – vision develops and functions as an inherent part of our kinesthetic perception system, as an intrinsically active and embodied (but not necessarily representational) modality of spatial exploration (27–30, 96-99) defined through the affordances of moving-in-the-world.

⁶¹ Due to this co-constituting relation between practice and discourse, where both signifier and signified are continually moving around each other, I argue that CI can be considered what Mieke Bal terms a “traveling concept” (Bal 2002) in a uniquely literal and corporeal sense.

An aspect of CI which provides fitting ground for this discussion can be described in Massumi's jargon as experiencing kinesthesia as synesthesia (Massumi 186, 197), where sensory perceptions blend into each other within the living flow of movement. Vision and hearing are employed peripherally during movement in the jam space to inform tactile awareness (Albright 42), but also vice-versa: CI practitioners often speak of "backspace awareness" or "peripheral attention" (Little 250) to movements occurring in blind-spots. This is a mode of "seeing" through one's body (Novack 189), and further emphasizes "embodied listening that turns the skin, fascia, organs, bones and fluids into ears" (Little 249), attuned by the intentionality of one's movements to the subtleties of other orienting bodies.

I believe this phenomenon can differently and satisfyingly be accounted for by the two approaches: For Noë, kinesthetic synesthesia could be explained as channeling and familiarizing further aspects of the interrelationship between perception and embodiment, as in Albright's description of CI practitioners "becoming comfortable with different ways of seeing" (1989, 42). CI's corporeal feedback loop allows access to higher volumes of perception-detail, causing sense modalities to blend together and be interpreted through each other in the high velocity of adaptive movement. This can be perceived as proof that all modalities are always active and dependent on each other to constitute perception – even in stationary activities typically considered "monosensual" (Noë 140). Synesthesia is but a radical manifestation of the broader fusion of sensory modalities through which, according to Noë, perception emerges from environmental situatedness.

Massumi's thought would perceive kinesthetic synesthesia as displacement and alienation of vision and representational thought's role, as in Susan Leigh-Foster description of CI as defusing the hierarchy of the visual (Foster 2008, 51). Vision is "impeached" from its stabilizing, positional regime to instead act through proprioceptive awareness and perceptual surplus, within a broader ontological experience of complexity and constant becoming that partially breaches the framing of human subjectivity.

RESPONS-ABLE BODIES AND THE BORDERS OF PHENOMENOLOGY

This difference between Noë and Massumi's understanding of vision and of navigating complexity hints at a more fundamental theoretical disagreement. In my understanding, the deeper philosophical dilemma this discussion entails is not only whether there exists a qualitative difference between visual and embodied perception, or between representation and sensation, but also about this possibility of breach: *can a different form of human somatic experience traverse the limits of phenomenology, or just explore or redefine its affordances?* Massumi broadly aligns with the former view, Noë with the latter.

In CI discourse, this issue echoes the longest standing debate relating to the form's definition and implementation, between two leading paradigms. CI was conceived by Paxton as predominantly about "physics": working with worldly forces such as gravity, inertia and momentum, letting go of conscious choice and interpretation to act purely through exploration of the physics and materiality of moving bodies. Understanding CI through the paradigm of modern physics also opens the door to rethinking the materiality of moving bodies as dynamics of energy that shift in multiform structures of infinite, quantum difference. The other paradigm understands CI as "chemistry": combinatorics of existing elements in their melding and transforming of corporeal structures, symbolizing social dynamics, somatic emotional experience and dramatic expressions, empathy, sexuality, and therapeutic aspects. The tension between these paradigms is evident in accounting for the concept of "thinking flesh" (in Albright's terminology, Little 2014, 250) or "response-able bodies" (in Barad's terminology, Little 251) – essentially the idealized experience of CI relationalities.

Many aforementioned aspects of CI, particularly the experience of giving one's self over to the rapid flow of abstract communication by movement-in-touch, function together to destabilize the reign of the classicist understanding of *self-as-cogito* in a body/mind dualism, and pave the way for *response-able bodies* to take center stage: "'getting' contact improvisation is learning to dial down your conscious verbal commentary in order to let your kinesthetic intelligence have a freer reign" (Albright 2011, 10). Beyond experiencing perception as kinesthetic and synesthetic, and one's *self* as a "mindful-body," the experience of embodied hyper-attentiveness within CI interaction can mean a trans-subjective capacity to "feel" each other's thinking through subtle adjustments in the flow of touch" (Little 2014, 255). Response-able bodies may instantaneously comprehend each other's trajectories, and experience mutual "movement contagion" in a process of transfused intentionality that blurs not only the boundaries between each other, but between the interiority of one's body and the exteriority of space as well. Such experience strongly differs from dominant understandings of subjectivity and phenomenology in Western culture and adheres to Noë and Massumi's notion of consciousness as environmental.⁶² But how should this discrepancy, this supposedly "new" form of experience, be accounted for?

In Little's view, "response-able bodies" bring CI's attentive embodied communication into the more radical state of "communing": moving "as/with our partner who is our self-sensing" (256).

⁶² As conscious thought is much too slow to follow, let alone account for, all the micro-decisions made within this experience, and experiencing one's agency through the flow of this exchange, essentially brings embodied thought to the fore. Massumi speaks of a delay of one-fourth of a second between the time of a movement actually happening and the time of becoming consciously aware to it – meaning representative thought and linear memory often rationalize and claim for their own, post-fact, movement decisions that had little to do with them. Embracing this delay and acting before representative thought can appropriate actions can be perceived as a defining element to the experience of "response-able bodies."

Experience of the *self* is re-structured as an expression of “worlding” – “becoming in excess of our singular being” (Little 252), where bodyminds breach the boundaries between matter and thought to become as-one and “intra-act” at the level of quantum multiplicity. From a more phenomenological perspective on CI, such as Albright’s, these connections and sensations are understood as stretching the capacities of our being-in-the-world: experiencing an intense connection with materiality and others rather than fusing with them. These somewhat conflicted views broadly adhere to the discrepancies between viewing CI as physics – going beyond subjectivity (Little), and as chemistry – exploring subjectivity’s potential restructurings, forming an expanded and more empathetic experience of self (Albright). I argue that Noë and Massumi’s conflicting approaches to the philosophical notion of breaching phenomenological limits can be said to mirror and fortify both sides of this debate.

In Noë’s view, our concepts and perceptions emerge through a *generative* system – experiential familiarity with patterns we can make sense of based on our internalized sensorimotor skills and knowledge. Hence, *there is no (completely) new experience* (Noë 2002, 198). The capacity for experience to emerge presupposes a degree of familiarity with the generative system in the same sense that, while we can never infer⁶³ all individual numbers, there are no new numbers, and any potential discovery of a new element is pre-framed by the periodic table. This view aligns with understanding *CI* as “*chemistry*,” and a reconfiguration rather than a breach of phenomenology: if kinesthetic, sensorimotor action and understanding constitutes our phenomenology and (partially subpersonal) conceptual systems (201) – it can never take us beyond its own limits, just reveal more potential variations. “Response-able bodies” would be an implementation of all experience being “a mode of skillful encounter” (Noë 208): further channeling the interplay between action, perception and conceptualization to expand the “ways of moving and behavioral degrees of freedom” (86) that define the world as it is made available from our perspective, and consequently our grasp on “*absolute space*” (207). Along with cognitive research on sustained touch being the strongest conductor of flow in movement dialogue (Łuczniak 2015; 2016; Torrents 2010) and the immense potential of embodied empathy through mirror neurons, this perspective can explain Little’s paradigm of “communing” as an exaggerated interpretation of an experience that showcases some fundamental truths: we always exist partially outside ourselves, and perceive directly on the level of matter and through our sub-personal capacities to interact with it (Noë 2004, 116-117). This is a traversal of intentionality and subjectivity only in their traditional sense, not under Noë’s central assertion that consciousness is always something we *do*.

⁶³ Noë maintains that experiences are non-inferential – we directly encounter the world by understanding how our perception adapts as we move through it – but always through our relation to it (2004, 85). We perceive things as they *are* – not as sets of mental representations – but only through the tacit corporeal interpretation of how they appear to us.

Massumi's view broadly aligns with the paradigm of CI as physics. It differs by arguing that in any experience of synesthesia that reveals the complexity of perception, there are strange holes in the "loop" of perception that allow the involuntarily and unexpected to "slip in" (2002, 191) and form exceptions to all systemizations. Response-able bodies, in their constant contortions within the jam space, may form a topological ecology of movement that lets "the advent of the new" into its creative feedback-loops, and thus a potential territory for "onto-genesis of experience" (191). That is to say, for forming a sort of new lived ontology, which goes beyond the gaps of subjectivity and between subjects, beyond intentional or phenomenological prefigurations, into what Little would term as communion with the other bodymind and "the other of mindedness [...] simply: matter" (Massumi 2002, 190).⁶⁴

CONCLUSION

Noë and Massumi's ideas on movement, vision, navigation and the potential breach of phenomenological delimitations, align with the practice and discourse of CI – and particularly the "chemistry" and "physics" paradigms and the concept of "response-able bodies" - in ways I find quite educative for stronger comprehension of their concepts, and for fittingly experiential laying-out of the differences between them. More broadly, I hope to have substantiated the affinity between CI and embodied cognition as a potent ground for further analysis, which future research would do well to explore. Interdisciplinary practice-based research in this scope seems particularly promising, as it may allow CI and EC to dialogically shed their lights on each other for mutual insight, potentially walking the road that this paper has attempted to mark much further.

I do not attempt to conclude the phenomenological debate here, nor proclaim to "pick a side" in this dilemma (though my intuitions tend to side more with Noë), my aim was to explore how these key points of contention in CI and EC seem to echo and amplify each other. As breaching phenomenology is a complex and oblique philosophical dilemma to tackle, the combination of CI and EC may provide fitting grounds of "lived abstraction" to take a slightly clearer look through.

Finally, it is worth mentioning that this split of CI into two supposed camps or paradigms – though productive for the purpose of generalized discussion – is itself a false dichotomy: no contemporary writing on CI views it as pure "physics" or "chemistry," as there is quite a clear need to at least partially account for both and treat them as somewhat parallel dimensions.⁶⁵ If CI's re-structuring

⁶⁴ Little directly builds upon Massumi – paraphrasing some of his ideas along with Karen Barad's – in her description of virtual identity and spatio-temporality folding into the actuality of matter in the experience of "communing" and "worlding" – going beyond the notion of subjective identity to experience one's self as a part of a relational ecology in motion (2014, 251–256).

⁶⁵ A final related aspect of CI that this essay leaves mostly unaddressed (for the sake of brevity) is its politics. As enthusiastically argued by Little and Albright (2013) – and largely agreed upon in CI discourse – the experience of response-able bodies in CI practices is a shift in the "politics of attention," which carries a potential for emancipatory re-

of subjective experience⁶⁶ occurs within the realms of phenomenology, it functions through challenging its boundaries; and if it reaches a true breach, it transcends subjectivity through channeling (inter)subjectivity in a plethora of ways.⁶⁷

Noë writes that a theory of perception must straddle the divides between personal and sub-personal, conscious and unconscious, conceptual and non-conceptual (2004, 31-32) - given the above discussion, I would add phenomenology and ontology (or “onto-genesis”) to the list. I believe this makes CI a possibly ideal testing ground for theorizing perception, as it provides an experience capable of mobilizing attention to literally spiral around these borders. As Massumi claims, attempts at paving new paths between abstract and concrete, subject and object, must travel through not only the realm of pure matter, but also through the territories of perception, lived experience and even consciousness (2002, 206). Perhaps the difference between sufficiently nuanced versions of these two approaches – though theoretically significant – is mostly a matter of framings and semantics?

I am fond of Little’s definition of CI as a politics of attention, partially because it unfolds a rather broad range of layers to potentially direct attention to. Participation in the jam space can be experienced a sort of moving meditation, or suspension of *self*, verbal thought and identity-narrative, as abstract theatrical play that triggers emotion and behavioral patterns (relating to both friction and intimacy), as athletic practice of an acrobatic technique, and as expressive performance art, by different people at different moments, and sometimes, somehow, all at once. If CI practice can seem to escape phenomenology (or at least subjectivity in its traditional sense), it is in those fleeting moments of overabundance where experience folds under the weight of heightened flow, where space feels flooded by subjectivity and the limits of the subject flooded by the space, where the difference between moving and being moved, between kinesthetic intentionalities of connected bodies and those of gravity and momentum, becomes completely indeterminate.

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structuring of identity. CI’s political potential can be interpreted to fit both the “physics” and “chemistry” paradigms and does not settle the debate: the focus may be on CI as an intersubjective experience of “small-scale democracy” (and/or kinesthetic empathy (Albright) that could align with Noë’s theory (a-political though his writing may be in-and-of-itself), or as a more radical subversion, which manifests a spatio-temporal experience of constant becoming-other to form “communing” of worldly consciousness, which Little argues for in direct relation to Massumi.

⁶⁶ Barring early assertions by Paxton, whose totality has since been redacted (Novack 1990, 73). Little’s writing is closer to the first paradigm and Albright’s to the second, but both provide nuanced analysis of CI experience that accounts for factors from both these paradigms.

⁶⁷ In this sense, I believe CI also proves the banality of writing-off the potentialities of any art form that is, as Cjevic puts it, “implicitly phenomenological.” The view that this culminates in traditional Western subjectivity is nulled if we, in Deleuze and Guattari’s words, “look only at the movements” (in Massumi 2002, 206) – or, as CI compels us, try to look from *within* the experience of movement.

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ILLUSTRATIONS

1. A page from Nancy Stark-Smith's Hieroglyph notebook. *Contact Quarterly* 7 (2) (Winter 1982). Also in Albright, 1989, p. 50.

2. Nancy-Stark Smith's instruction to the "Underscore" jam format. <http://nancystarksmith.com/wp-content/uploads/2016/03/Underscore-sheets-5.jpg>. (As Underscore jams are freely performed worldwide, many other versions of these instructions are available online.)
3. Farberoff, Dan. 2016. "*Ci2i*" *Yochai and Olivia*:. [Screenshot from video clip]. <https://vimeo.com/180032667>