



Universiteit  
Leiden  
The Netherlands

## **Participatory sense-making in physical play and dance improvisation: drawing meaningful connections between self, others and world**

Hermans, C.

### **Citation**

Hermans, C. (2022, December 1). *Participatory sense-making in physical play and dance improvisation: drawing meaningful connections between self, others and world*. Retrieved from <https://hdl.handle.net/1887/3492231>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/3492231>

**Note:** To cite this publication please use the final published version (if applicable).

## Chapter 12. Final Remarks on Physical Play and Dance Improvisation as Participatory Sense-making Processes

In this final chapter I give a glance at the past and a glimpse of the future. First, I return to where it all started: close at home, with the spontaneous play events of my children. I describe physical play and dance improvisation as fluid practices where rhythm is intensified and experienced in the flesh. From here, I move to enactivism and the concept of participatory sense-making. I revisit the two research goals that I formulated in chapter one and I reflect on the possible contributions this research study has made to articulating the kinship between physical play and dance improvisation. I then return to the subquestions that I formulated in the first chapter, and I critically reflect on the three different phases of the research process: the living archive, the re-enactments and the Re-Play/Re-Move toolkit. I close the chapter with some suggestions for future artistic research.

### Going back to the beginning: where it all started

At the beginning of this thesis, I wrote down how this artistic research is shaped around the messiness of daily life, as the physical play events of my own children form the departure point of my research. It is an art practice that takes place *close to home*, it is immediate and intimate, as I am a mother, artist and researcher at once. In many ways, these small instances of physical play can be seen as *micro-adventures*, the small little things in daily life that happen spontaneously and that trigger a playful state. Playfulness resides in the intimate, non-habitual connections that are temporarily established between the body and its surroundings. Play, one could say, is full of apparent contradictions. “It is lighthearted and exuberant, but also serious and intense.” (Gordon & Esbjörn-Hargens, 2007a, p.1) It is spontaneous, but it also involves strategy and planning. It is safe and risky. It is actual and virtual. It requires attachment and detachment. It is easy and it is difficult. It is precisely play because these apparent contradictions can exist beside each other – and they can do so because play (just as dance improvisation) has no material interest, nor a direct goal (Huizinga, 1955). As a result, both play and dance improvisation take place within their own boundaries of time and space.

Even more, in play and dance improvisation participants can practice their skills and broaden their movement repertoire in ways that exceed the daily and habitual in every possible way. With this I mean, that a trained dancer has acquired a set of skills, such as the flying-low technique<sup>77</sup>, that has hardly any (direct) purpose in daily life. The same is true for play: a child can be a very good spitter, or good at stone skipping, brilliant at talking like Donald Duck or excellent at cannonballing (Mouritsen, 1998). In daily life, this is of no importance at all, but in play it is.

For me, this is of the most important things of physical play and dance improvisation, namely to explore possibilities of movements (and skills) that have no direct purpose or function in daily life. First of all, physical play and dance improvisation allow us to expand and break from our habitual movement repertoire. Second of all, in both physical play and dance improvisation, movement is considered as a *meaningful experience* in and of itself (Sheets-Johnstone, 2003). In both physical play and dance improvisation there is a *kinetic urge*, an impulse and a necessity to move just for the sake of movement.

---

<sup>77</sup> The flying-low-technique of David Zambrano is a technique that uses simple movement patterns to move fluently and dynamically in and along the floor.

Even more, both physical play and dance improvisation can be seen as bodily activities in which *rhythm itself is intensified* through repetition and difference (Deleuze & Guattari, 1987). The players/dancers become sensitive to the not-yet, the in-between, the interval, or to what Manning (2009) calls ‘the elasticity of the moment’. Rhythm is the vehicle through which the players/dancers engage with the not-yet. The players/dancers become sensitive to the possibility of change, of any rupture that manifests itself in patterns of rhythm (that are continuous and discontinuous at once).

This increased sensitivity to the not-yet is often accompanied by alertness, wide-awakeness, enthusiasm and readiness for surprise (Gordon & Esbjörn-Hargens, 2007b). And not to forget the thing that is often overlooked: *laughter*. Sheets-Johnstone (2003, p.415) is right when she states that it is not enough to say that play (or dance improvisation) is a pleasurable activity. Clearly, this is an understatement. Physical play is “most commonly, great and overriding fun” (p.414). Just watch a bunch of children jumping on a trampoline, and you will immediately notice how jumping itself as a movement is compelling, in a motivating as well as attention-getting sense (Sheets-Johnstone, 2003). Go to a playground, and you will notice that this physicality is accompanied by laughter and by noises such as yelling, screaming, squealing and even growling or grunting. Also in dance improvisation, movement is often accompanied by the making of sounds – from explicit breathing to vocal painting.

I suspect this is because laughter as well as expressive sounds are channels of affects - just as movement is. Laughter, expressive sounds and movement are capable of bypassing language, and because of this, they can directly tune into affects, intensities and forces. This is also the reason why play and dance improvisation are not ‘just fun’ – as if fun is merely something peripheral and marginal. Fun requires an open attitude and a willingness to break with the conventional frames of daily life. Throughout this thesis, I therefore refer to this as ‘serious attention to having fun’, because a playful attitude requires dedication, commitment and engagement in the affects/intensities that unfold at the moment.

According to Sheets-Johnstone (2003, p.418), kinetic fun is “engaging and delightful because it resonates in feelings of aliveness radiating dynamically through a kinetic/tactile-kinaesthetic body”. Even more, affects and feelings of aliveness do not only resonate *through* the body but also resonate *in-between* bodies. The interaction dynamic itself brings forth affects, forces and intensities. Both dance improvisation and physical play can be seen as creative practices that take movement itself as the main vehicle for the co-regulation of intentions and affects. It is here where sense-making comes in.

### **Once more: physical play and dance improvisation as participatory sense-making processes**

In this artistic research, I have explored the kinship between physical play and dance improvisation against the theoretical backdrop of enactivism and De Jaegher and Di Paolo’s concept of participatory sense-making (2007). In chapter one, the following main research question was formulated: *What are the elements that constitute the participatory sense-making process of both physical play and dance improvisation?* In this paragraph, I discuss and answer this question.

The relation between enactivism and dance improvisation/physical play is twofold. First of all, enactivism can offer an inspiring theoretical framework for articulating the kinship between physical play and dance improvisation. Second, physical play and dance improvisation may, in turn, offer a creative source for examining and extending the enactive theory and the concept of participatory sense-making.

In this thesis, physical play and dance improvisation are seen as creative activities that take the kinetic/kinaesthetic dimensions of movement as the departure point of shared sense-making processes. Sense-making arises through a double-layered process of kinetically attuning to the movements of others while at the same time kinaesthetically attuning to one’s own movements.

The concept of participatory sense-making (De Jaegher & Di Paolo, 2007) has been a fruitful concept throughout this artistic research. The concept is used to explain how sense-making emerges in the interactional dynamic. In this thesis, physical play and dance improvisation are both considered sense-making activities in which movement and perception/sensation are deeply intertwined, and where “a meaningful world is ‘brought forth’, or ‘enacted’, through a structural coupling with the environment” (Van der Schyff, 2015, p.2).

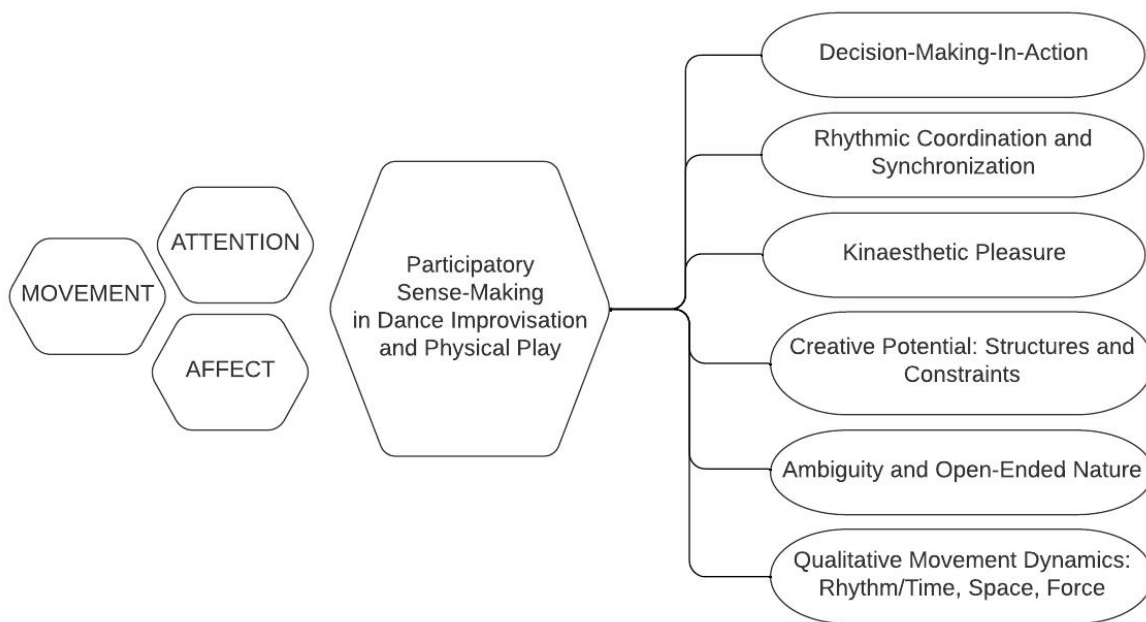
Physical play and dance improvisations are manifestations of life (Van der Schyff, 2015). In playing and dancing, we connect to our own bodies, to the surroundings and the bodies of others in a vitalizing way. You only have to jump a few times in the air or to run as fast as you can, and you understand how movement itself is a life force, how movement resonates with feelings of aliveness. Now if you jump together with someone else, for example on a trampoline, these life forces start to resonate with each other in such a way that new creative potentialities emerge.<sup>78</sup> In other words, the interaction dynamic itself becomes formative for the sense-making process.

In this artistic research, I identified three basic components that contribute to participatory sense-making in both physical play and dance improvisation (see Figure 55). Physical play and dance improvisation are activities that 1) take movement itself as the source for creative exploration, 2) are affectively charged and 3) bring attention to the kinetic/kinaesthetic and tactile aspects of the interaction.

In addition, I added six elements to the model. Physical play and dance improvisation are seen as *self-organisational practices* where movement is created in the moment. The players/dancers need to deal with structures and constraints of which some are set on forehand, while others arise during the creative process. *Decisions are made in the action*, using present resources while taking in the constraints, rules and adaptive pressures that emerge in the moment (Kimmel et al., 2018). Physical play and dance improvisation are both *open-ended*, the outcome is not set on forehand, and surprise, as well as the unexpected, are very much welcomed. However, this doesn't mean that there is no planning involved. Play and dance improvisation both require skill, training and preparation. Even more, the participants have to be increasingly sensitive to temporal changes, adjusting to what happens in the moment and forefeeling what comes next. Physical play and dance improvisation are therefore always forward-going. In both activities, movements, affects and intentions are (rhythmically) synchronised in resonance with others and with the direct surroundings. In other words, movements are organised through *the rhythmic coordination* of movements and affects. In this process, *creativity* emerges as a novel response to changing, situational and/or relational cues. Furthermore, the participatory sense-making process in physical play and dance improvisation is deeply rooted in the body and movement. Meaning arises through attunement to the ongoing *qualitative dynamics of movement* in terms of force/energy, time and space. Finally, in physical play and dance improvisation movement itself is *a source of pleasure*. Both are activities that open up “corporeal-kinetic possibilities” and “a space for innovation, a field in which creative energies can surge” (Sheets-Johnstone, 2003, p.418).

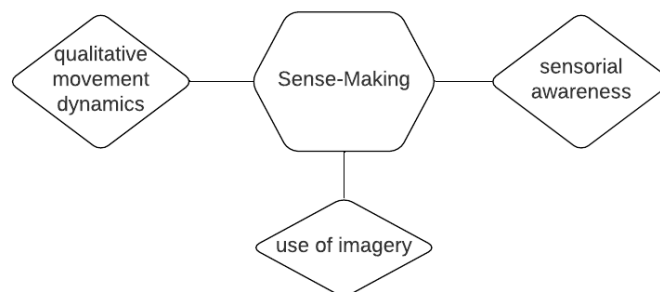
---

<sup>78</sup> As I have already argued elsewhere, even if you dance or play alone this is still considered a relational act. A jump, for example, can never be performed without a ground, without gravity, without the air. It is through the intimate connection between surroundings, things/materials and body that ‘a relational shape shifting’ can take place (Manning, 2009).



**Figure 55.** Participatory sense-making model for physical play and dance improvisation

This preliminary participatory sense-making model of physical play and dance improvisation is not yet complete. I do believe some ingredients are still missing. For example, although the model does point to the role of the kinetic/kinaesthetic and affective body in the sense-making process, I think more could be said about sensorial awareness – specifically how internal sensing and external sensing both contribute to the sense-making process. How are internal sensations transformed and externalized in movement with a qualitative dynamic? How can internally felt sensations and affects be expressed in movements? The role of imagery and narratives should be taken into account too. Imagery allows us to shift our experience, our current sensorial state, our engagement with others and our surroundings. For example, if a dance teacher gives the assignment to move explosively, it can help to give the image of boiling water. By linking imagery directly to the felt dynamics of a movement, new registers of sense-making become available. It is the entanglement of moving, sensing and imagining that gives rise to new values of sense-making (see Figure 56). It is also here where higher-order cognitive processes enter the picture<sup>79</sup>.



**Figure 56.** Sense-making: moving, sensing and imagining

<sup>79</sup> Anttila (2003) draws similarly a connection between imagination, movement and the sensing body. In reference to Damasio (1999) and Greene (1995), she argues that imagination is the production of new images/responses. It is the opening up of new possibilities that arise in the moment. Even more, imagination is multimodal, as it uses input from all the senses and movement. Through the ongoing dialogue between movement, imagination and sensation, new registers of meaning-making become available to us.

### **Enactivism: how meaning and values are generated in physical play and dance improvisation**

The second line of thought in this final chapter is concerned with the question how physical play and dance improvisation, as unique participatory sense-making activities, can deepen and extend the enactive theory. As I already stated in the introduction chapter, enactivism has been criticized for not being able to account for higher-order cognitive processes such as memory, imagination and abstract problem solving. It seems as enactivism is bound to the here and now and that it can only explain basic (lower level) cognitive processes of sensorimotor engagements. Riding a bike for example can be easily explained by enactivism, but what about playing chess, solving a mathematical problem or planning a holiday trip? What about cognitive processes that have no specific locus, that deal with nowhere and no time (such as abstract thought)?

Di Paolo et al. (2010) argue that although enactivism is acknowledged in many sectors, it is still not water-proof when it comes to higher-order cognitive activities where meaning is detached/decentred from its actual context. Di Paolo et al. mention the following activities that allow for ambiguity of meaning: play, dance, music and ritual. Since physical play and dance improvisation are the key concepts of this artistic research, it might very well be possible that this artistic research can contribute and extend the enactive approach to more complex cognitive activities.

I consider physical play and dance improvisation as special cases of participatory sense-making. Since both activities bypass language, and therefore straightly tap into the kinetic/kinaesthetic and affective dimensions of experience, they serve as good candidates to understand how meaning-making is embodied, situated and relational. Let me give a concrete example of a rough-and-tumble play between my son and one of his friends. The event took place more than six years ago. My son was eleven years old at that time, and so was his friend. It was a Saturday afternoon: the boys had just returned from a hockey game and were still very excited and energized. They both collected a few pillows and then started to attack each other on ‘the battlefield’ (the blue carpet) in our living room. They placed a pouf in the middle: this pouf marked the center of the battlefield. With every attack, the two boys started to collect more materials. They only used soft and safe materials that would not harm the other person. The friend for example took a blanket from the couch and threw it over his shoulder. ‘I am the king’ he declared, ‘and you are a servant’ which resulted in another attack.

A few things can be said about this play event. First of all, as already becomes clear in the example, the concrete situation is infused with new meaning. We see how in the play event new, associative frames of meaning emerge. The blanket has become a cloak, the blue carpet a battlefield and the pouf is now a war zone. What is even more relevant is that it is not the objects as such, nor language that allows for ambiguous meaning-making. It is the *entanglement of movements and affects* that allow for the creative unfolding of potentialities.

There is more. The boys have just come home from a hockey game, they are still excited and in for a good (playful) fight. This can best be described as an elevated sense of aliveness, an unresolved excitement and a bodily readiness for more. The air is vibrant with movements and affects that have not found their proper expression yet. In their play, the boys together find openings and passages for these felt forces and intensities. Here we see how sense-making unfolds through the dynamic entanglement of “moving and being-moved, affecting the other and being-affected” (Mühlhoff, 2015, p.1002). My son and his friend, together, are moving the relation. Within this interval, openings and passages are produced through which intensities and affective forces flow back and forth. Meaning itself resides entirely in the corporeal domain: in other words, values are expressed and come into being through the qualitative dynamics of a movement (such as speed, force, range, and direction). Repetition and difference play a role here too. My son and his friend repeat the attack over and over again: they prepare for the fight, take their starting position and look each other

in the eye thereby suspending the moment of attack, then comes the release, the play fight and the resolution. There is a moment of relaxation, when they are just laying on top of each other, then they scramble up again, collect their weapons, take up their starting position and get ready for another fight. It is important to note that this is not a repetition of sameness, but a *repetition of difference*, that is, within the repetition pure forces and sensibilities are experienced (Deleuze, 1994; Deleuze & Guattari, 1987). Repetition is here seen as an *intensifying of rhythm*. Repetition is a virtual force that accelerates/decelerates time, alters space and transforms the meaning-making process.

New associative frames of meaning arise within this relational entanglement. These associative frames can be expressed in words ('I am the king') but words (language) are not necessary for the unfolding of the play event. When the two boys enter the living room and take their position at the two opposites of the carpet, they don't say: 'This is the battlefield and we are now going to fight'. No, it is in the (shared) physicality, that the boys take a leap out of the conventional frame (this is a carpet) and pick up a new associative frame (this is a battlefield). They can use language to confirm this new imaginary frame, but it is certainly not necessary. Instead, they use all kind of body signals (such as laughing and play-face) to make clear that they now enter together a new imaginary zone.

In dance improvisation pretty much the same thing happens, but now the sense-making process is even more abstract and ambiguous. Dancers engage in movement, purely for *the sake of moving*. They reach out, not to grab something but for the sake of reaching. They roll on the floor pure for the sake of rolling. They jump in the air pure for the sake of jumping. Just as in play, the sense-making process entirely resides in the kinetic/kinaesthetic-affective domain. The tensional, affective qualities that are already present in daily life actions (think for example of sawing a piece of wood, running to catch the bus, lifting a heavy stone) are intensified. This is because movements are stripped off their daily function. What remains is the (immediate) qualitative structure of movement – "its intensity, expansiveness, rigidity, unswervingness, suddenness, etc." (Sheets-Johnstone, 2012, p.46). Now, since each movement has an affective tone, we can immediately see how dance improvisation unleashes affects, intensities and forces. As I have argued throughout this thesis, affects do not only resonate between two or more living bodies but also between bodies, materials and surroundings. All participate in the creation of meaning (see also pages 109 and 117).

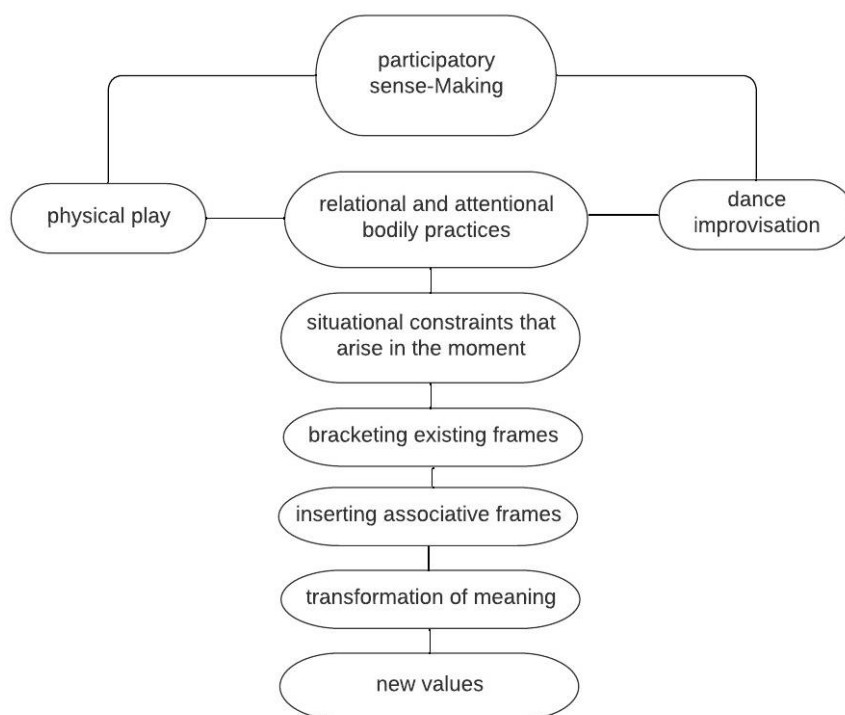
Now the most important question here is, how higher-order processes are involved in the process of meaning-making. As I already stated earlier (see page 19) lower-level cognitive activities often deal with the here and now (such as skills and goal-oriented action) while higher-level cognitive activities have no locus (such as abstract thought). One important condition for higher-order processes is that meaning is ambiguous, it is not tied down to the situation. Di Paolo et al. (2010) refer to this as "the capacity to 'unstick' meanings from a given situation and 'stick' novel ones onto" (p.36). The example above shows how experience is bracketed in such a way that new associative frames arise.

Figure 57 shows how new values<sup>80</sup> might emerge in the sense-making process of both physical play and dance improvisation. Physical play and dance improvisation are ways to experiment with and to re-invent different bodily ways of connecting with self, others and environment. Both activities require a willingness to throw off existing (situational) constraints and to welcome new constraints. By moving the constraint, new potentialities arise. Even more, both physical play and dance improvisation can detach "experiences from their context of origin, creating a new frame that allows for greater freedom, interactivity, and creative possibilities" (Gordon & Esbjörn-Hargens, 2007b, p.65). Through the bracketing of (existing) frames, the participants step outside the actual frame and incorporate new, associative frames (the virtual).

---

<sup>80</sup> See footnote 32, page 50, for an explanation of value and value generation.





**Figure 57.** Value-making in the sense-making process of physical play and dance improvisation

I hope to have shown in this paragraph that physical play and dance improvisation can enrich the enactive approach – specifically when it comes to participatory sense-making processes. However, it would go too far to state that the “scaling-up problem”, i.e. the problem of not being able to account for higher-order processes such as abstract reasoning, imagination, counterfactual reasoning and complex problem-solving, has now been solved (Gallagher, 2019, p.805).

There are still some unresolved issues. First of all, in this artistic research, the focus lies on tacit, bodily knowledge. Play and dance move beyond language, they tune directly into the lived experience of every agent that is involved. As a result, the sense-making process in physical play and dance improvisation is not only highly ambiguous and fluid but also to a certain extent ungraspable, hidden and ‘silent’. Meaning is expressed through corporeal concepts and except for some verbal comments (‘I am the king now and you the servant’), there is no ‘evidence’ of how new values and associative frames arise within the interaction. Physical play and dance improvisation are both creative activities that bypass language and that take bodily interaction as a central source for meaning-making processes. In both activities, “non-symbolic sensations generated by physical action and multisensory engagement become interconnected with symbolic knowing, and lead towards complex meaning-making processes within the social and cultural world” (Anttila, 2019, p. 81). In future research, it would be worthwhile to examine how non-symbolic sensations are linked to symbolic knowing<sup>81</sup>. This could be done by asking the participants (children as well as dancers) to verbalize their experiences in terms of sensations and thoughts while they are playing and dancing (for example with a mobile recording device).

<sup>81</sup> Lakoff and Johnson (1980) have explained the role of embodiment in abstract thinking. According to them, we develop image schemas (i.e. recurrent patterns that structure our ongoing activities) based on our lived experience. Image schemas operate in-between abstract, propositional structures and concrete images. The perceptual and sensorial information is stored in image schemas that in turn give rise to a conceptual representation.



Second of all, the concept of participatory sense-making is usually applied to daily interactions that require some sort of collaboration. However, physical play and improvisational dance differ from daily actions in several ways. First, everyday actions are goal-oriented while both play and dance do not serve a direct, immediate goal. Second, communication in physical play and dance improvisation does not rely as much on language as most of our daily interactions do. The meaning-making process in physical play and dance improvisation is foremost concerned with corporeal, non-linguistic forms of understanding that are grounded in the kinetic-kinaesthetic body (Sheets-Johnstone, 2003). Third, physical play and dance improvisation are open-ended activities: process and outcome are not pre-defined and usually there is a limited set of rules/constraints. As a result of these three characteristics, the sense-making process in physical play and dance improvisation remains inherently ambiguous and fluid. We can however not assume that this is true for all participatory sense-making activities. Fluid and ambiguous meaning-making may only occur in activities that are not clearly goal-oriented. In that case, physical play and dance improvisation do merely serve as special examples of participatory sense-making since their intrinsic characteristics are not shared by all PSM activities.

A third challenge is to map how internal processes and external processes both contribute to the sense-making process. Sense-making is not something that takes place outside us. We are active autonomous agents that not only attune to a given situation but also to our selves. The sense-making *moves through us*, we internally process our meaningful encounters with others and with the world. And while it moves through us, we also change it, adapt it – we bring our own selves into play. Sense-making therefore should be explored and examined exactly at the threshold of inner and outer forces.

This being said, I still believe that both physical play and dance improvisation offer powerful ways to examine and enrich the enactive approach. My artistic research is only a first and small step in this direction. Future research is needed here. I suggest that a multidisciplinary team of artists/dancers, play experts, philosophers and cognitive scientists (from the field of enactivism) is necessary to tackle these questions. Even more, practice-led (artistic) research, i.e. research that taps straight into the experiential, meaningful dimensions of both physical play and dance improvisation, could potentially offer rich insights on this topic.

### **Artistic research: a method that is intimate and distant at once**

The type of research that I have been pursuing for the last four years, is artistic, practice-based research that is open-ended, self-critical and contextual (Hannula, Suoranta & Vadén, 2014). The artworks are considered both the research and the object of the research. “Artistic research is characteristically *not research about or of* but a participatory act and reflection with a strong performative element” (p.4, original emphasis). As a result, the researcher is both an insider (since the artwork is inseparably tied up to the artist) and an outsider (by taking distance and reflecting upon its practice).

As I already stated in the beginning, the research started close to home. Almost all physical play events are captured in and around my home, embedded in daily life, and with an intimacy that stands in sharp contrast with the positivist research paradigm. This is specifically the case in the first phase of my research. In the second and third phase of my research, I have created more distance by moving further away from home and inviting others (dancers/dance students/dance teachers) to join in. But even with this distance, my artistic research in all phases is immediate, close at hand and intimate. With this I mean that the research is bound up with me, and as a result, it sits uneasily with traditional concepts of research such as objectivity and reproducibility. It also raises questions about what kind of knowledge is produced.

In line with Ingold (in reference to Guattari, 2016), I perceive artistic research as “a process not of iteration but of *itineration* [...] It carries on, as life does, not closing in on solutions but ever

opening to new horizons.” Research - seen in this light - is a process of opening up, of tapping into a never-ceasing experiential flux that takes its own course. Artistic research is embedded, it is situated, it is embodied: it taps straight into the experiential dimensions of our living bodies. It is a living practice. Artistic research is “the articulation of the unreflective, non-conceptual content enclosed in aesthetic experiences, enacted in creative practices and embodied in artistic products” (Borgdorff, 2012, p. 168). Both Borgdorff (2012) and Ingold (2016) state that artistic research is an open undertaking that foregrounds living experience. For this reason, there is no definite conclusion, only “openings that let us in” (Ingold, 2016, p.4).

Now the question arises of how the embodied and living content of artistic research can be articulated in a linguistic-conceptual framework (Borgdorff, 2012). My worry here is that a linguistic framework (such as this thesis) might override the embodied nature of the artistic, and become the predominant mode of signification – in much the same way as a title and a short explanatory text of an artwork in a museum can take away and annihilate the initial, embodied response to the artwork. In an ideal situation, the two types of knowledge (pre-reflective embodied knowledge and conceptual/propositional knowledge) would complement and enrich each other but in Western society, the conceptual/propositional tends to be a dominating, colonializing force – as we so often forget that we are bodies and that we are sensuous beings. Borgdorff (2012, p.171) states that artistic research is the acceptance of this paradoxical situation of both nearness (the pre-reflective embodied experience) and distance (the reflective conceptualization):

Artistic research articulates the fact that our natural relationship with things we encounter is more intimate than what we can know. At the same time, it also familiarizes us with the fact that those things are in some way foreign to us. In art, we sense something of our pre-reflective intimacy with the world, while realising simultaneously that we will never explicitly understand what lies there in such plain view.

These two forces, intimacy and distance, are in a constant push and pull. We reach out for this intimacy but are never able to entirely grasp it, let alone explicitly understand it. For me, it is enough, that at least some of its immediacy and intimacy remains throughout the artistic research process – that the living archive, the re-enactments and the Re-Play/Re-move toolkit still carry traces of this aliveness, that all my writings have not silenced them.

### **The three phases of the artistic research**

The following research question was central to my thesis:

What are the shared elements of participatory sense-making within physical play and dance improvisation?

The research focused on three areas of investigation corresponding to the three phases of the research (living archive, re-enactment and toolkit):

- 1) Photography as a medium to explore the elements of participatory sense-making in children’s physical play.
- 2) The use of photographic imagery and re-enactment in exploring the shared elements of participatory sense-making through dance improvisation.
- 3) The application of the shared elements of participatory sense-making in a toolkit for creative movement exploration for children between the age of 4-10 years.

In the first phase which started in 2013, I collected photographs of the physical play of my own children, sometimes with their friends and neighbor kids. This has resulted in a living archive that consists of more than a hundred photographic sequences and stand-alones. In line with Auslander (2008), I consider the photographs as more than just records or traces: the photographs are artefacts that contribute to the performativity of the original play events. Even more, the photographs are artistic as well as ethnographic. In my research, the living archive forms a creative (re-)source for gaining a tacit understanding of the different elements that make up the participatory sense-making process in children's physical play.

My conclusion is that photographs can indeed be used as a medium to explore artistically the elements of participatory sense-making in children's physical play. Although at first glance video might be more appropriate than photographs in capturing play, I maintain that the power of photography lies in its ability to pause time and capture moments that would otherwise pass unnoticed. Photography creates both nearness and distance: it draws the spectator in while at the same time it makes the spectator aware of his/her outsider position. Photography thus never creates a neutral space: the spectator re-experiences the original play event through the framing and the compositional choices of the photographer. In this sense, the photographs do not only (re-)present the original play event but also make me present (as a photographer, dancer and mother). In other words, if you look at the photographs, you do not only see playing children, you also see me, the photographer. The photographs, therefore, are highly subjective, intuitive and particular. They reveal elements of participatory sense-making, but only in a momentary, fleeting way. In line with Ingold (2012), the photographs *correspond with* the play events, they exist along, as material traces that open up new paths and directions. The photographs carry the events further, by making them present in another medium. The photographs depart from the original play event but in their actualization, they develop their own course and (multiple) direction.

In this artistic research, I used photography as a creative tool to capture the corporeal aspects of physical play. In chapters 7, 8 and 9, I described and analysed three different play events and their re-enactments: rough-and-tumble play, animal becoming and the hotel dance. Here, I pursue three lines of thought that I believe are vital for the sense-making process in children's physical play. First of all, sense-making is a highly relational process. Even if children play alone, they still draw intimate connections between the self and the materiality of the world. Although the concept of participatory sense-making is usually restricted to intersubjective encounters, I argue that sense-making is a process where one *participates in the world*. To participate is to open up to the materiality of the world. It is in the interaction between the body surface and the surface of (human and non-human) materials, that sense-making starts to emerge. Sense-making is thus always a conversation of the flesh.

Even more, physical play is often described as a combination of play and physical vigor. Based on my analysis, however, physical play is just as much an imaginary act as it is a concrete-physical act. Through combining the concrete and the imaginary sense-making becomes a transformational act. Gordon and Esbjörn-Hargens (2007b) refer to this as the bracketing of frames, the moment when boundaries and constraints become fluid. This allows the players to engage and experiment with the possibilities that emerge in the moment. A blanket may transform into the wings of a bird, the tail of a fish or the fur of a fluffy animal. Physical play is a corporeal activity that is glued to a specific situation but at the same time, it is capable to detach given, situational constraints and adapting new constraints that allow for more creative freedom. Sense-making in physical play is thus a process where one *participates in the concrete as well as in the imaginary realm*.

Finally, my research illuminates how physical play often takes on shape through patterns of repetition. This repetition is not directed towards sameness but towards difference. What is repeated is the unrepeatable (Deleuze, 1994). For example, when the four boys (see chapter 7) jump on the blue mat, they repeat this action over and again. However, each jump differs from the jump before – not in

the overall sense but the little details. It is my belief, that young children learn to know themselves, others and the world through (an almost endless) repetition of physical actions. Physical play increases the bodily sensitivity of young children through rhythmic patterns of repetition and variation. Sense-making, one might say, is a process where *one participates in (co-modulated) rhythmic, repetitive patterns* that (re-)organise and (re-)structure the lived experience.

The second phase of my artistic research consisted of three re-enactments and the Touch Project. In this phase of my research, the living archive became a source for the creation of new work. A group of professional dancers was asked to respond to the affective and bodily traces captured by the set of photographs.

In the artistic process, I have specifically chosen re-enactment as an artistic method to examine how traces of physical play can serve as a creative source for movement improvisation. I didn't want to treat physical play and dance improvisation as independent, isolated phenomena since I was foremost interested in the intersecting lines, in the crossing, in the blurry and messy boundaries between the two. I thus started close at home and then expanded the artistic research to the improvisational practice of dance professionals.

The re-enactments aimed to explore how affects, intensities and forces can travel through different bodies in physical play and dance improvisation – with the use of a set of photographs. Mühlhoff's notion of affective resonance (2015) was used to understand the dynamic entanglement between moving and being moved, affecting and being affected by the material traces (i.e. the photographs) of the archive. Although affective resonance usually refers to the affective interplay that is experienced by the interactants in face-to-face contact, I used the term to understand how affects can travel through different bodies without direct interaction. I asked the dancers to respond to the affective traces captured by the set of photographs – allowing it to resonate within their own bodies. I consider my research therefore as an addition to Mühlhoff's theory in two ways. First of all, affects do not only resonate in the direct interaction of two or more moving bodies, since affective traces and residues can also be transported through other material sources (such as photographs). Second, affective resonance is a gripping force that not only arises in the dynamic interplay between human bodies but can also be experienced in the interaction with our surroundings. The re-enactment of the hotel dance is a good example of this. The theatrical setting (couch, chair, lamp, carpet, side table) doubles with the original hotel setting in such a way that the two surroundings start to resonate with each other. The settings are gripped together, and this dynamic entanglement opens up channels of affects, intensities and forces.

I have two final thoughts about this phase of my artistic research. First of all, there is still much to learn about the role of touch (and the haptic sense) in the participatory sense-making process. The Touch Project has taught me that touch is not only the oldest but also the most intimate of our senses. Touch establishes an immediate connection with self, others and with the world. To touch means to temporarily reside in otherness, to dwell in betweenness. Participatory sense-making is so much more than "the coordination of intentional activity in interaction" (De Jaegher & Di Paolo 2007, p.13): *it is a willingness to touch and to be touched by otherness*, a with-ness, a togetherness, a temporal moving along with each other (Ingold, 2017).

Second, the sense-making process in physical play and dance improvisation is a fluid process that moves in two directions: outside in and inside out. Due to kinaesthetic awareness, movements are not only "outwardly visible, as linear trajectories" but they are also felt inwardly (Ingold, 2017, p.38). These inward and outward forces are in constant dialogue with each other. This is also the case in the three re-enactments. Each re-enactment started with incorporating specific gestures and postures that were displayed in the set of photographs. This outer congruence allowed the dancers to establish deeper sensorial connections between their own bodies and the set of photographs. The pose or

gesture served as an entrance, a way in. By moving into the kinetic configuration of a movement or pose, the dancers established active connections between what was outwardly visible (the pose or gesture) and inwardly felt. Anttila refers to this as “sensing and dialoguing with our own bodies” (2003, p.104), a process of listening that involves both interiority and exteriority. In other words, participatory sense-making is a process where interiority and exteriority continuously fold into each other. To participate in sense-making is to *attend and listen to these double-sided forces that draw us inside, yet at the same time push us outside.*

The third phase of my research involved the development of the Re-Play/Re-Move toolkit for children between 4-10 years. The toolkit has two components: a creative card deck and three additional workshops. The creative card deck consists of over 100 cards that are loosely based on the PSM model that I developed (see Figure 55). The three workshops are closely related to my own artistic process since re-enactment once again is the starting point of creative movement exploration.

The toolkit is loosely based on the different elements of the PSM model. It is not a literal translation and although the eight categories of the toolkit resonate with the model, they also divert from it (see Table 7). The cards are meant as an invitation for young children to engage with the body and with movement playfully and creatively. Besides categories such as ‘space’, ‘rhythm’, ‘collaboration’ and ‘patterns’ that have a direct relation with the PSM model, I therefore invented more thought-provoking categories such as ‘impossible actions’ and the ‘as if cards’ that help children to establish deeper connections between moving, sensing and imagining.

In future artistic research projects, I would like to further examine the role of imagination in the participatory sense-making process of physical play and dance improvisation - in terms of how we re-structure and re-organise our experience, and how we build up a sense of continuity between past experiences and present experiences. How can imagery open up new registers of meaning-making?

I am thus interested in how imagination can be a source for creative movement exploration, and vice versa, how movement itself can be a source for imagination. In the Re-Play/Re-Move toolkit the category ‘as-if’ and ‘impossible actions’ are examples of how imagination can trigger specific movements. Playful instructions such as ‘*as if your hands are resting on a cloud*’ or ‘*as if the ceiling is slowly coming down*’ can foster new ways of moving and sensing. In the future, I would like to refine these categories and create, together with the children, a set of cards that trigger creative movement on a deeper bodily level – thereby avoiding mimicry or imitation. In recent research (Hermans, forthcoming) among dance teachers, I found that detailed instructions are very important. One teacher, for example, starts her creative movement sessions with exercises that bring awareness to the breath. Then she introduces basic ‘grounding’ exercises that lower the centre of gravity and strengthen the core. In the next step, she adds some imagination. She gives assignments and suggestions that often have to do with animals. Like being a cat with a spine that is mobile and flexible and an imaginary tail that you can use as a counterbalance during quick movements. These detailed instructions prevent the child from just imitating a cat by providing sensory and bodily details of the cat-becoming.

As I already stated before, creative movement exploration is foremost an attentional practice. A core element of both physical play and dance improvisation is transforming images, affects and thoughts into movement and vice versa, transforming movement into images, affects and thoughts. I believe that the intimate connection between inner felt sensations/affects/thoughts and external movements is the breeding ground for lived experience and sense-making. It is through movement that we (re-) structure and (re-)organise our worlds. It is through movement that we develop a sense of agency. Movement itself is foundational for any sense-making process. We must not forget that sensations, affects and thoughts are born in movement – and that life itself is intimately connected with movement. Creative movement exploration allows young children to experience the body, not as

a mere instrument or a habitual routine, but to grasp the body in sensory-kinetic terms and to foster kinaesthetic awareness. Both physical play and dance improvisation (as creative movement practices) are powerful ways to engage with the body in a kinetic-kinaesthetic way and to experience how movement itself is at the heart of all sense-making processes.

### **The societal relevance of dance improvisation and play**

This final paragraph is not so much a final conclusion but a prelude to whatever will come next and to what is not written down in this thesis. I want to take the opportunity here to look at my research topic ('the shared elements of participatory sense-making in physical play and dance improvisation') from a wider, societal angle. The aim of this final paragraph is not to deliver a cohesive argumentation, but to follow several lines of interrelated thought that take their own course and direction.

This research is part of a body of writing on the role of the body in sense-making processes. The topic reaches beyond the arts to a wider societal context as both improvisation and play are part of everyday life. Ingold and Hallam (2007) state that improvisation is ubiquitous in life.

Our claim is not just that life is unscripted, but more fundamentally, that it is unscriptable. Or to put it another way, it cannot be fully codified as the output of any system of rules and representations. This is because life does not pick its way across the surface of a world where everything is fixed and in its proper place, but is a movement in a world that is crescent. (Ingold & Hallam, 2007, p.12)

Each human being has to work out and invent their own way of living. Improvisation, and inherently also play, are thus vital forces in life. Following Ingold and Hallam (2007) four things can be said about improvisation, and consequently about play: they generate diverse forms of culture, they are relational, they are temporal and they are practices we simply do.

There are several aspects of both dance improvisation and play that point to relevance beyond the arts. First of all, *dance improvisation and physical play take movement as the main vehicle for sense-making processes*. In Western society, we still too often take the mind as the central organ for thinking and being, and there is much to learn from practices that take movement as the vehicle for shared sense-making processes. Physical play and dance improvisation are both embodied practices that strengthen the connection between the mental, the emotional and the physical – and as such they have much to offer when it comes to health and wellbeing. Already in chapter 10, I pointed to the importance of touch for social bonding and well-being, and the Covid-19 pandemic has made us even more aware of not only the importance of touch but also of taking care of our bodies. Active engagement in play and dance improvisation has the potential to promote, enhance and maintain wellbeing – in a physical as well as mental sense. The systematic review of Alexa Sheppard and Mary Broughton (2020) shows that active participation in dance (but also music) promotes and encourages healthy behaviours such as physical exercise, managing stress, autonomy and social bonding. Physical play and dance improvisation provide participants with positive and creative ways to align the mind with the body. In many (but not all)<sup>82</sup> ways, both play and dance improvisation can be seen as practices of care where we attend and become response-able to self, others and surroundings in an embodied way (Middelow, 2019).

Even more, dance improvisation and play are not so much styles but practices that take the 'possible' and 'the virtual' as starting point for creative movement exploration (Middelow, 2019). Both can be seen as practices of "*dwelling in possibility*" in a personal as well as political sense (Cooper Albright, 2019, p.86). Improvisation and play are processes that are necessarily incomplete,

---

<sup>82</sup> Play and dance improvisation do not always provide positive, or pleasurable experiences, see also page 16.

never entirely finished, and always open to change. Improvisation and play are “always in the making” (Ingold & Hallam, 2007, p.3). The ambiguous nature of dance improvisation and physical play can perhaps help us to cope with a rapidly changing world, not so much on a global but on a personal, human-to-human, level. Cooper Albright (2019) states that dance improvisation can teach us to cope with major (and often unplanned) life events since it fosters cognitive flexibility and openness to face the things that cross our path.

Improvisation is a philosophy of life, albeit not one based on a specific doctrine, or system of beliefs. Rather, it is another way of relating to one’s experience – a willingness to explore the realm of possibility not in order to find the correct solution but to simply find out. (Cooper Albright, 2019, pp. 86-87)

Improvisation is movement that finds its shadow in another movement. Tapping straight into the lived experience, improvisation does not fixate things but it takes change and transformation as the vehicle for sense-giving processes. Physical play and dance improvisation orient our attention towards what happens in the (next) moment. Both are temporal practices that take the not-yet as the starting point for a shared adventure. Even more, since both physical play and dance improvisation deal with dynamic exchange, it questions and refuses any static definition of self, of others and world. This can be seen as a political act since both improvisation and physical play challenge and question fixed identities and social positions.

Dance improvisation and physical play are significant for human experience because both are *relational*. This relationality is not defined by words or symbolic representations but relationality is expressed in and through movement. Both dance improvisation and physical play are practices that draw meaningful lines between internal and external sources. Participants open up to others and surroundings, yet at the same time, they become sensitive to what goes on inside – on a sensorial, affective and reflective level. The attunement to internally and externally felt forces and intensities, this fluidity, this constant crossing-over of self and other(ness), requires an openness of the body. In other words, dance improvisation and physical play are practices through which we can learn how to move together in a meaningful way, amidst a field of inner and outer forces. (This doesn’t mean that there is always harmony: clashes, discordances and awkward, uneasy moments are an intrinsic part of any play event or improvisational session).

This brings me to another aspect of dance improvisation and physical play. As soon as we open up our bodies, we become vulnerable – since opening up means that we allow ourselves to be affected by external forces. Sheets-Johnstone (2003, p.412) considers physical play and dance improvisation as ways of “coming to grip with our vulnerabilities”. Through play and improvisation, we not only learn and *get acquainted with our own vulnerabilities but also with the vulnerabilities of others*. In other words, in play and improvisation we put our vulnerability on the line. It allows us:

[...] to experience first-hand the ultimately fragile bodies we are. It is a self-teaching exercise in corporeal care and survival, not only corporeal care of ourselves and our own survival, but corporeal care of others and their survival. (p.413)

However, this could also be said of other movement practices, such as aikido or sports. The main difference is that physical play and dance improvisation are both creative practices. “Somatic awareness intersects with imaginative possibility (or is it somatic possibility intersects with imaginative awareness?) such that cultural meaning becomes more fluid, although never abstracted.” (Cooper Albright, 2019, p.94) Both physical play and dance improvisation open new registers of meaning-making through *the tight connection between movement and our imaginative reservoirs*. It is



the intersection between imagination and movement that overrides the functional, even if only for a moment. It is the coming together of somatic awareness with imaginary possibility that takes us out of our daily routine and brings us back to the challenges of the moment. It makes us attentive to possibilities that arise in the moment. I believe that these imaginative reservoirs together with movement practice, not only bring us closer to ourselves, but also to others and to the planet we live on.

In another way, dance improvisation and physical play can give us embodied opportunities to explore the notion of *freedom within constraints*. In times where democracy and freedom of speech are(once again) contested, it seems all the more important to invest in practices that foster but also critically reflect on the notion of freedom. According to Danielle Goldman, freedom is necessarily tied up with constraint. Freedom is not the breaking of structures or rules but it is a learned and trained ability to move and respond to an ever-shifting world. For Goldman, dance improvisation is the “imaginative, expressive negotiation with constraint” (2010, p. 27). She considers constraints as tight spaces: through improvisation we try to stretch these tight spaces. Goldman thus moves away from popular ideas of freedom as the expression of an authentic self, as something that comes over us and illuminates us. By binding freedom to constraint, we become aware that freedom is something that we do (and not only believe), something we practice that requires negotiation and awareness of existing constraints. Improvising with constraint is thus something we are confronted with in our daily life, as we encounter other people in the street, in the office, in school or any other institution.

However, this is not only a hooray story. Yes, I am excited about the potential of both physical play and dance improvisation, as becomes clear from the above. But there is also work to do. Physical play and dance improvisation are social practices that are embedded in socio-historical and material conditions. Norms of race, gender, class, and ability underly each instance of movement. Much of what has been written on play and dance improvisation targets a white and well-educated audience – and my research is no different in this respect<sup>83</sup>. To finish this final chapter, I would like to press the need for research that takes cultural diversity (in terms of gender, race, SES and ability) into account. Anttila, Martin and Svendler-Nielsen (2019) speak of dialogical, third spaces that allow us to become aware of the sociocultural norms that are at play in creative movement education, and that invite us to move beyond fixed entities, categorising and labelling. Knowledge of cultural differences and underlying socio-cultural norms (race, gender, SES, ability) in both play and dance improvisation, can help us in creating a supportive and inclusive environment. Education that is sensitive to differences, might in turn foster acceptance of self and others. Creative movement education can help young children to get in touch with their bodily felt sense – and from there they can connect to the world and to others. It allows children to experiment with possible selves and possible others. Using the body and imagination as the main sources, creative movement exploration can open up new pathways of being, thinking, feeling and relating. This way we can move beyond dichotomic and non-inclusive ways of thinking. Both physical play and dance improvisation, as creative practices, allow us to engage with the not-yet. It is here where being turns into becoming, where imagination and movement join forces, where the unexpected springs from the expected, the unplanned from the planned, and the unknown from the known. It is here that our fluid sense of self can relate in a creatively and openly with others and with the world.

---

<sup>83</sup> Some scholars have done research into the cultural aspects of play and dance improvisation. For some good reading, I refer to the work of Goldman (2010), Anttila (2019), Anttila, Svendler Nielsen & Burridge (2020), Stinson (2005), Bjorbækmo (2011), Rettig (1995), Gaskins (2015), Çakirer & Agustí (2014), and Zachopoulou, Trevlas & Tsirikiki (2004).