# PERFORMING A GARDEN. EMBODIED PRACTICES FOR COMMUNITY MENTAL HEALTH

## REALIZZAZIONE DI UN GIARDINO. PRATICHE INCORPORATE PER LA SALUTE MENTALE DI COMUNITÀ

Maria D'Ambrosio<sup>1</sup> University of Naples Suor Orsola Benincasa <u>dambrosio@docenti.unisob.na.it</u>

Cecilia Cocchiaro Azienda Sanitaria Locale Napoli 1Centro

Maria Buongiovanni Azienda Sanitaria Locale Napoli 1Centro

**Ylenia Scatola**<sup>2</sup> Azienda Sanitaria Locale Napoli 1Centro

#### Abstract

Following the agreement between the Local Health Authority, ASL Napoli 1 Centro, and Suor Orsola Benincasa University with its related Action Plan 'SmArtLab', in March 2021, the Child Neuropsychiatry unit and the group working on Embodied Education began carrying out a research for developing a highly integrated sociohealth service. This was the first step to link Pedagogy and its phenomenological background, Neuroscience and the "embodied turning point" with the Mental Health field. SmArt Lab aims at changing the current medical caring practices in order to move towards a "Caring society". It promotes a new approach focused on the development of the whole community and territory in its complex relational systems and processes. We work on the *sensitivity* and *plasticity* of the human body, making bodies and spaces, with their tactility and mobility, the "living material" to be generatively reconnected. The embodied practices, introduced through experimentation and prototyping activities, precisely identify the relational issues and provide an epistemic and methodological trajectory for a work aimed, practically and symbolically, at "(per)forming a garden". The garden is both a metaphor and the 'real' place where we re-think life as a model to re-construct bio-logically oriented social and health practices. The Living creature (Dewey, 1934) and its process of life/existence within a body/space/community/territory makes the innovation of a Public Health System worthwhile: we are observing and studying its plastic dynamic transformation. To "feed" the *living creature* and its life/existence process, Embodied Education

methodology works with both bodies and spaces, in their vital and plastic mobility, in order to make them part of the autopoietic *domains of existence* (Maturana-Varela, 1980).

A seguito dell'accordo tra ASL Napoli 1 Centro e Università Suor Orsola Benincasa con il relativo Piano d'Azione 'SmArtLab', nel marzo 2021 l'Unità di Neuropsichiatria Infantile e il gruppo di ricerca 'embodied education', hanno avviato una sperimentazione attraverso una ricerca-intervento per lo sviluppo di un servizio ad alta integrazione socio-sanitaria. Questo è stato il primo passo per collegare la Pedagogia e il suo background fenomenologico, la Neuroscienza e la "svolta incarnata" con il campo della Salute Mentale. SmArt Lab mira a

<sup>&</sup>lt;sup>1</sup> Author of Introduction, paragraph 1 and Conclusions.

<sup>&</sup>lt;sup>2</sup> Cecilia Cocchiaro and Ylenia Scatola, authors of paragraph 2; Maria Buongiovanni author of paragraph 3.

cambiare le attuali pratiche di assistenza medica al fine di muoversi verso una "società della Cura", promuovendo un nuovo approccio incentrato sullo sviluppo dell'intera comunità e del territorio nei suoi complessi sistemi e processi relazionali. Il lavoro è focalizzato sulla sensibilità e plasticità/performatività del corpo umano, facendo dei corpi e degli spazi, con la loro tattilità e mobilità, la "materia viva" da ricollegare generativamente ai processi formanti. Le pratiche incarnate, introdotte attraverso attività di sperimentazione e prototipazione, individuano le problematiche relazionali e forniscono una traiettoria epistemica e metodologica per un lavoro volto, in pratica e simbolicamente, a "(per)formare un giardino". Il giardino è sia una metafora che il luogo "reale" in cui ripensare la vita come modello per ricostruire pratiche sociali e sanitarie biologicamente orientate. L'essere vivente (Dewey, 1934) e il suo processo di vita/esistenza all'interno di un corpo/spazio/comunità/territorio rendono necessaria l'innovazione di un Sistema Sanitario Pubblico: gli interventi e le azioni di 'embodied education' su cui lo scritto ritorna sono occasione per osservare la creatura vivente e il suo processo di vita/esistenza rintracciandone il processo di trasformazione dinamica plastica situato in un contesto socio-relazionale che fa da nutrimento. La metodologia 'embodied' introdotta lavora, infatti, sia con i corpi che con gli spazi, nella loro mobilità vitale e plastica, per renderli parte dei rispettivi domini autopoietici dell'esistenza (Maturana-Varela, 1980).

## **Key-words**

Living creature; epigenetics; performing space; sensibility; plasticity Creatura vivente; epigenetica; spazioFormante; sensibilità; plasticità

### The epistemic and methodological premises of a research in action.

"the living body is an indivisible whole in which we cannot draw dividing lines". (D'Arcy Thompson, 1961: 297)

"what is the relationship between geometric space, or rather geometric spaces, carefulness with the space of our experience, with that of physics and with metaphysical space, which is the real space?" (Bolyai, 1832: 59)

Trying with Bolyai to go beyond Euclidean geometry, we found ourselves in a different and open space, within Aristotle's *phrònesis* - "usually translated as 'carefulness', that is reconnecting theory and practice. With that *carefulness*, or 'sensitivity', and following the agreement between ASL Napoli 1 Centro and Suor Orsola Benincasa University with the related 'SmArtLab' Action Plan<sup>3</sup>, in March 2021 the Child Neuropsychiatry Unit and the 'Embodied Education' research group began cayying out a research developing a highly integrated socio-health service<sup>4</sup>. This experimentation has been the first step to link Pedagogy, and its phenomenological-existential matrix, to Neuroscience and its "embodied turning point" (Siegel, 2020), and with the Mental Health Field. SmArtLab in fact aimes at using embodied practices and their pedagogical background in the local healthcare system. The goal is to

<sup>&</sup>lt;sup>3</sup> Memorandum of understanding signed in August 2020 by ASL NA 1 Centro and Suor Orsola Benincasa University of Naples with the aim of testing the *embodied* methodology to prototype a service with high social-health integration. The agreement, signed by the Director General of ASL NA 1 Centro, Ciro Verdoliva, and the Rector of the Suor Orsola Benincasa University, Lucio d'Alessandro, establishes the collaboration between the Mental Health Unit, first directed by Fedele Maurano and now by Luisa Russo, the Child Neuropsychiatry Unit of Distretto 24 directed by Cecilia Cocchiaro and the 'Embodied Education' research group directed by Maria D'Ambrosio. Sara Diamare also operates within the framework of the agreement with the Quality and Humanisation Operational Unit and its *Salotti del Benessere* 

<sup>&</sup>lt;sup>4</sup> This work and its pedagogical methodology, introduced by the 'Embodied Education' group of the Suor Orsola Benincasa University, are linked to the vision and strategy, that the Mental Health Unit of ASL Napoli 1 Centro used to create the PASS project (School and Social Adoption Path), which has been active for many years in the territory of Napoli 1 Centro and is characterised by the facilitation of inclusive paths in the life contexts of children and adolescents with neurodevelopmental disorders and of their families, from a social and health perspective.

create a "Caring Society", by means of a methodology that stimulates community and territorial actions, professionals and starts by recognising all the services and involved. Cautiousness, carefulness and Care guided the experimentation, as a context-based action - that is arising from the specific nature of a community and a territory with their complex relational systems "cares life" and processes that for (Mortari, 2021). In this sense, the garden has become the metaphor, the symbolic and physical place, that, in the building of Distretto 24 in Naples, is ready to be revitalised, in order to rethink, rebuild and revitalise the socialhealth practices focused new 'Bio-Logic' of on а the Care. Cultivating "the relational structure of human life" (Mortari, 2021: 91) is therefore the horizon in which the inter-institutional team started the research and action to shape SmArt Lab as well as its first gardenspace together with operators, patients' groups and mothers' groups.

The inter-institutional team has thus identified the categories of body and space, their "sensitivity", their tactility and plasticity, as "living matter" to be activated for the growing process with its relational dimension.

In the project, therefore, the focus is less on diagnostic activities, which are the usual activities for a child neuropsychiatry service, and more on an Aesthetics of the Care and on the practice of interaction based on feeling and appearing, giving greater space to relational practices, to the plurality of modes of contact and relationship and to the neuro-diversity.

When reflecting on the Care, we are inspired by *The Life of the Mind* by Arendt (1978), by her opening up to plurality and by *Vita Activa* (Arendt, 1956), intended as a space of meaningful and contextualised action.

This phenomenological perspective brings us back, with Merleau-Ponty (1945), Jean-Luc Nancy (2010) and Daniel Siegel (2020), to the tactile and kinetic tools that are fundamental in the 'Embodied Education' methodology to explore and extend the possibilities that each person has, as a living being, to be and to know *in the* world.

In order to implement the transFormative processes, in the Embodied Education methodology, the exploration and extension of the sensory-motor sphere is practised, starting with breathing, walking and looking. With Berthoz (1997) and Shepperd (2017), the methodology is enriched by the study of physiological and bio-mechanical structures through which it deepens the tactile dimension as a quality of perceptual activity and condition of the 'sense' of action. In the study and experimentation carried out in this first year, body and space are considered in their dynamic unity that is realised in the path of living/growing.

The transformative nature of living/growing makes us think of physical phenomena with a non-linear course, "to be studied in relation to form" (D'Arcy Thompson, 1961: 14) and their reciprocal interplay of forces that involves a dynamic and unforeseeable change. In other words, the plasticity of bodies and spaces is recovered in a sensitive/tactile key in order to work on relationships, and on the quality of relationships, contributing to structuring the practices, methods and places in an epistemic and methodological key.

The work carried out should also be read as a search for alternative ways of guaranteeing the right to health and education, from a *lifelong* perspective, which restores a bio-psycho-socio-cultural vision to health and education sciences. The humus, which is identified by both the two sciences, is the relationship, origin of all the bonds between living (Dewey, creatures 1934). Our work is therefore attentive, with *carefulness*, to the process of living/existing, situated in a body/space/community/territory and oriented towards the innovation of a Public Health System.

In order to 'nourish' the *living creature* and its process of life/existence, the methodology of *embodied education* activates bodies and spaces together, in their vital and plastic mobility, so that they constitute autopoietic domains of existence (Maturana-Varela, 1980). The embodied turn becomes a methodology and gives shape to new territorial services with a pedagogical/transformative orientation.

Mental health is linked to the social and community dimensions, therefore a garden is, for SmArtLab, place of (bio)diversity and plurality, as well as a transformation process. a For the bio-educational sciences (Frauenfelder-Santoianni, 2004), the garden - as a symbolic place of the area of human inter-subjectivity (Trevarthen, 1980) - reminds us to nurture/care for Body-Mind-Environment, all together.

Pedagogy and Neuroscience - their epigenetic epistemological frameworks based on relationship, tactility/mobility and plasticity - become a place where professionals work together, exploring and developing generative relationships. spaces and In order to re-think Neuropsychiatric services in a socio-medical way, the body and the space are the research process aimed creating central issues in at "Caring Society". а Therefore we need proper observation tools to evaluate and 'measure' how relational capacity, communication, life, is improved in a not-linear process.

That is why we introduced the use of the diary, photography and interview as tools to be used for monitoring our exploration and experimentation of new activities and spaces, as well as the experiences of Embodied Education.

An experience-based methodology needs to involve inter-institutional teams, as well as patients and their parents, together in a common 'work', emerging as a work group that does design by emergency. (Pfeifer & Bisig, 2008).

#### 1. The generative issues of a perFormative experience

I was very conflicted, because I was overestimating Science compared with Art. Until I realised that with scientific research I would have been able to do only that, whereas in art, as I conceive it, I could and I can do *art*, *science* and *psycology*!! (Patella L. M., 2015: 135)

> "the way of walking is the exact prodrome of thought and life". (Balzac H,, 1833)

In the SmArtLab service conceived as *TheatrumOpera* (D'Ambrosio, 2020), between Art and Science we build and live our 'garden'. Breathing, Walking, Looking/Observing modulate our doing science and art. Building a garden engages the whole being, the whole sphere of perception and action, recognising that "the most refined properties of human thought and sensitivity are constituted by dynamic processes, by continually changing and adaptive relationships between the brain, the body and the environment" (Berthoz, 1997: X). In the research between Art and Science, in the year of training, training-on-the-job and experimentation, with the sound of Luca Maria Patella's 'Alberi Parlanti' or in the silence of Jerzy Grotowskij's practice and plastic exercises, bodies have become voices, voices have bocome dance, and dance became a score for poetic gestures.

Nature and the Human Condition need their own time. So do research and experimentation. Time to hear the questions that mark our experience as an inter-institutional group and as a working and research team. Questions relating to the team itself and its *embodied* 'turn' so that each of the professionals involved could identify the importance of the body and its sensitivity connected to the sense-motor system as a resource of its own, to be 'enabled' to promote and 'operate', precisely through the tactile and kinetic sphere, the birth and enrichment of the vital capacities of patients and the community in general. Together, we put ourselves on the line through these questions, which became the impetus to update the epistemic and methodological framework so as to '*make space for the body*' (D'Ambrosio, 2020) and 'give body to space'.

This generated a permanent observatory on bodies and spaces because they were identified as strategic resources. The research therefore hypothesised the reconfiguration of spaces in which to experiment

the perceptive, kinetic and communicative spheres, as 'sensitive environments' capable of activating a participatory process of planning and offering highly integrated social and health services. PerFormare un giardino' becomes the 'manifesto' of a grafting between knowledge and practices whose value can be 'measured' with tools - all under construction - capable of 'tracing' the *parkour* of life and existence and investing a pedagogical and clinical value in taking care of the life-environment.

The work of the 'Embodied Education' group opens up to what Mauro Ceruti (1989) calls ecological epistemology in order to trace the neurophysiological bases of the relationship and communication underlying the neuronal networks and their principle of interconnection. It is a question of working by nourishing the plasticity of the nervous system and therefore its transformative potential by using performative practices as an active and productive methodology of new environments and new possible cognition. Maurice Merlau-Ponty's phenomenology guides us in an investigation on the topological nature of space that identifies the *touching* as a possibility/necessity to go through the space, knowing that "these experiences never match exactly, [...], if between them there is always a 'move', a 'gap', [...] because [...] I feel, as many times as I want, the transition and the metamorphosis from one of the experiences to the other".

As with Gilles Deleuze (...) we are moving in a *logic of sense* and of "bodies that act and suffer", calling on the Arts to become an organically disturbing environment in which one is between acting and suffering and in which *mixtures are* generated. "In bodies, in the depths of bodies, there are mixtures: one body penetrates another and coexists with it in all its parts, like the drop of wine in the sea, or like fire in iron". And so we began to live the spaces of Distretto 24 until we go to the rooms of the Farnese Collection from Terme di Caracalla of the National Archaeological Museum in Naples, to the rooms of Casa Morra at Fondazione Morra, to the rooms of Fondazione Morra Greco. Living spaces has meant crossing them and moving/living the body through performance art to incorporate a choral and multiform po(i)ethical dimension that gives back to the space its plastic dimension and to the body its tactility, generating what Jean-Luc Nancy calls the *infinite operation of* putting oneself to work, which belongs to the body that opens up, exposes itself and becomes *theatre* (Nancy, 2010). Skin and breath are the main structures of the tactile and kinetic paradigm used to rethink the categories of space and body. Space and body in their plastic spatiality find their own fusion reality thanks to a theoretical-practical framework that looks at the need to co-exist and generate organic "structural couplings", as Humberto Maturana and Francisco Varela (1971) tell.

Designing a new type of service means introducing other practices of inhabiting the space, acting, walking through it, experiencing it, in a non-predetermined way, to cross over into the creative environments of *live performance* and its *rhizomatic* ethics/aesthetics. The quality of the *living* and of its environment becomes an original issue that we return to with special care to restore pedagogical and political value to the space and to what it becomes 'scene', because the questions of the form and of its transformative process concern and nourish the very process of living that can become industrious if oriented to the *Vita Activa*.

The training in situ, working with two small groups of patients (one of the youngest pre-adolescents and one of the adolescents) and with one of the mothers, opened the *team* to an exploration off the track marked by the words to which we then returned with those of Mario: "*With my hands," he says, "I can grasp my autistic thought and... throw it to you. throw it to you. I look at my hands which represent the consciousness of autism. In this way everyone can reach it and, therefore, touch it. The hands and that gesture of touching, and above all of being touched by another, makes us return here to analyse the work carried out in the performance meetings dedicated to initiating with each of the small groups a co-design of the new SmArtLab service. The relational sphere is also present when little Malik reflects on the fact that "some call them paranoia, others obsessions, but for me they are only certainties": almost as if to reiterate the absence of judgement and a participatory climate that accompanied us so that the possibility of a motivational dislocation and the search for the <i>apparition of the other* was always present (Jullien, 2018). We recorded the same in our work with the mothers, seeing them discover hidden or dormant resources each time and experiencing their own proactivity. For me," says one of them, "the project changed the conception of the ASL space, above all because it

is a public place where we take care, structured in a certain way anyway. It gave me the idea of transformation. For me a space can now be changed, and this has changed. (...) For me, entering here has always been a heavy, oppressive thing, now I perceive it differently, with a possibility of change, of exchange, of union, of community. The course has given me the idea that with little, with the presence of man and his thoughts and energy, you can transform an environment. Space is a container, and then it depends on exactly what energy you want to put inside it. The path was much more 'sensorial' than material, it stimulated my senses. When we enter these structures, this does not happen: there is weight, solidity, little possibility of movement, heavy thoughts. Everything is linked to experiences, we are used to living in these places in this way". The work on agency mediated and substantiated by the sense-motor sphere makes it possible to implement changes that alter the quality of the overall perception regarding the relationship with health and mental health. A relationship that passes through people, spaces and practices. It is you who experience it in a different way," says another of the mothers, "it is what you create inside that changes the space, even going to the MANN, there was a magical energy there. I don't think it's so much the space but what you bring and build inside. An important reflection also emerged from the interviews. The traces of the experiences carried out make the profound dimension of this first part of the experiment 'tangible'. A profoundness that will also be reflected in the diaries and analyses of the operators<sup>5</sup> and that makes pregnant what has emerged from the group of adolescents, from their tenacious fragility, and from their desire to generate a united, safe, joyful and ample space that one of them says resembles the sea. And so the embodied work on the inner and outer 'landscape' seems the necessary completion of the activity.

## 2. SmArt Lab: towards a Caring Society

The involvement of the Public Health Service in a pedagogical and social research is helped by the participation of socio-pedagogical educators within the multidisciplinary team. The work carried out to create a SmArtLab prototype is based on the main elements of the phenomenological pedagogy, focusing on people, on their experiences and on consciousness and awareness of corporeal actions. Neuropsychiatry can thus provide a therapeutic approach that differs from the traditional symptom-response approach. From the discovery of mirror neurons (Gallese, 2005; Rizzolatti-Sinigaglia, 2005), the Embodied Simulation introduced the sense-motor involvment as the basic principle of educational learning and action. This approach, shared by the Child Neuropsychiatry Unit (NONPI24) and the SmArtLab Embodied Education Group, is an essential part of their educational practices and pre-linguistic tools. The aim is to improve mental health and wellbeing in childhood.In the last few years, education sciences and cognitive sciences have been increasingly reducing their distance from each other (Fischer, Daniel, Immordino-Yang, Stern, Battro, Koizumi, 2007) until they have become a single science, the so-called Mind Brain Education Science (Tokuhama-Espinoza, 2010). They both focus on learning aspects - memory, attention, language - as well as on those concerning the consciousness and the body. Within this context, the educational approach is multimodal and begins by integrating the three elements body-environment-art; they are all experienced by Embodied Education that uses multisensory and kinetic to operate on a complex process of experience creation. According to Neuroscience, our brain cannot learn simply by repeating, but rather by doing: children need to play and move. in order to discover, explore and learn . Similarly, we better stabilise information when we are interacting with others with emotional involvement.

Our work is therefore focused on both body and space, it considers the subject as the "maker" of his/her learning processes and re-thinks the educational strategies that enhance corporeality as a means for cognition and relations with environment, objects and people. Corporeality and motility become working elements and tools for the whole team, becoming legitimate

and concrete dimensions for taking care of children, parents and teachers. While working on corporeality and motility, we have also agreed on the importance of operating on the setting of care and rethinking space as a founding element of the treatment itself, highlighting the bodyenvironment interdependence. As Local Health Service operators, together with the embodied education group researchers and the Fine Arts Academy students in Naples, we broke the conventional care settings, by opening up to the external environment and empowering different local subjects, encouraging everyone to be responsible for caring. The caring for the most fragile has become part of the caring for the whole community, the environment and the physical spaces. This is how we began to restore dignity to the social dimension of healthcare policies and services, while contributing to local development strategies. We are on our way, together with the sociologist Donati (1983), towards a Caring Society: a society seen as a community that, as a whole, cares for its citizens by means of what Donati himself calls 'circular subsidiarity'. Fondazione Morra and Casa Morra (Contemporary Art Archive), the National Archaeological Museum in Naples and Fondazione Morra and its museum have all welcomed SmArtLab, providing it with the opportunity to create 'another dimension', an 'alternative' space for care, by turning their paces into everyone's spaces. We will then pursue our research by engaging parents, teachers, and the community in order to develop a strategy that incorporates the multidimensionality of the treatment plans.

#### **3.** Transformative parkour tracks. Within the action, moving together towards.

The experience launched at the Child Neuropsychiatry Operational Unit (Nonpi) 24 of the ASL Napoli 1 Centro, and then extended to a larger group of participants in other locations such as the National Archaeological Museum, Casa Morra at the Fondazione Morra and the Fondazione Morra Greco, has apparently activated mental processes related to the early stages of childhood development among the participants. The gaze has been one of the main functions of this experience. A direct gaze of those who welcomed us and kept us together; a gaze that, like a bridge, created a space where we could meet and communicate with no need for words...

"We are in a circle and we look at each other. We are in the large waiting room of the Nonpi24 which has been unused because of the Pandemic... The waiting room now represents a meeting space where together we face the external limits imposed on us by Covid. We look at our colleagues in a circle experiencing a new proximity: next to each other! Without gowns, necklaces, furnishings, decorative elements surrounding and distinguishing us... Glances move quickly, together with social oriented movements... we smile... new feelings are flowing, they are quickly incorporated and seem to involve us in an experience of new knowledge. The teacher looks at us ... hints at a smile and then seems to wait for us to settle down, then he shows us a movement that we all translate into the intention of walking outside ... all together, in silence, we observe the flowers blooming ... we are experiencing the early days of the 2021 spring. We cautiously walk outside observing each other ... searching for ourselves through the others ... it seems everyone is wondering what the others are going to do next: what are we going to do? We move forward uncertainly looking towards the guide to discover the new recognizing ourselves in her, and finding ourselves interacting with others. moves, The external space, which is extraneous to our daily experience and related to our everyday routine of going in and out from the workplace, emerges as an important part of our experience, revealing its great value. We look at the flowerbeds...we can observe them, they are full of wild flowers... We think about the nature of things ... following its cycle, without stopping, it renews itself punctually... The Spring brings us back to the same rhythm as the natural phenomena. Still before any action, we silently agree on picking some flowers...Everyone makes his/her own choice and we return together to our waiting room in silence.... We are once again in a circle, but now we feel closer to each other because of the sharing atmosphere which we have been able to develop. Everyone can bring into the circle the things they have collected ... as symbols of a path and memory of a meeting ... all small bouquets of flowers and herbs make up a single, larger one."

According to psychology, the concept of "primary intersubjectivity" (Murray and Trevarthen, 1985; Tomasello, 1990) includes all those interactions that arise during the first few months of life. They are defined as " social dialogues" and are characterized by gazes, smiles and vocalizations. The gaze is the main element through which the relationship starts, modulates and develops. In this mental developmental phase, sensations, sensations originating in the body generate first selfperceptions, fostering processes of subjectification already in the very early months of life. Thus, the primary intersubjectivity implies both processes of subjectification through perceiving a corporeal Self, and intentional movements towards the other. The large rooms and the structure of Casa Morra, where the second session of the Embodied Education SmartLab took place, enabled us to articulate our experience through a differentiated space-time rhythm. The first space is where we meet to wear more comfortable clothes for the workshop, and where it is allowed to exchange a few words before starting the experience, where silence prevails.

The middle space is where people who are ready go through and sit down, where you are silent, waiting until the whole group is ready. Encouraged by the gaze of the teacher, we walk down a corridor that leads to our destination. The space of the experience: "The room of the speaking trees", an art installation by Luca Maria Patella (2018) is the place where, sitting on the ground, we are immersed in the new space as if we were natural elements... listening to a faraway voice, which is part of the installation, and which narrates...

"The teacher invites us to stretch our bodies towards an imaginary line beyond our heads...I can hardly stop thinking, and adapting to such a different environment than our daily working one... I am sharing with my colleagues this new experience of closeness within a unique context.

We are learning to feel those sensations emerging from our relaxed and clumsy bodies, which are gradually awakening and becoming more and more active with unexpected movements... the teacher is becoming the key to help us find ourselves again... and regain our integrity... until the next task. Thus, a group movement begins to develop and the feeling of becoming interconnected between us and the environment begins to emerge."

When the practice finished, we walked back to the middle space where, in silence, we left the "dimension" we had experienced. Then we returned to the first space where we rediscovered the words and the boundaries they defined. Enveloped by the unique atmosphere of silence and calm, the group, during the initial phases of the workshop, experienced empathy, by means of their gaze, connecting to the teacher's intentions. Similarly, infants look at their mothers driven by a need to communicate and not always by the fulfilment of a primary physiological need.

The infant can modulate the relationship with the mother using the sensorial qualities of the preverbal communication and he/she seems to be predisposed towards socialising and enjoying the encounter.

The discussion about the workshop highlighted that the gaze, the joint attention and the joint intention, which are all elements that appear in the earliest stages of child development, can be considered as experience indicators as well as the starting point for building a data analysis device. The analysis device directs the observer's attention to specific experience indicators: rhythm, voice, silence, gaze.

The future direction of the research is directed towards the potential use of the Embodied Practice in the healthcare field to facilitate and enable new integrative processes whenever our child patients face developmental difficulties.

## Conclusions

"They have no hands to handle the world, yet it would be difficult to find artists more capable of creating forms. Plants are not only the finest artisans of our universe, but also the species that opened the world of forms to life, the life form that made the world the place for the infinite figurability." (Coccia, 2016: p. 23)

It can be observed and emphasised that currently Body and Mind are not yet key concepts used and thought in the health care system. "Sensibility" and "Action" (as interaction) are dimensions to map and improve for the living/existing process and spaces because they are fundamentals for the life of each *living creature*.

The Embodied methodology is changing and innovating the health care practices and is increasingly opening Mental Health towards Research (by the research group on Embodied Education), School, Educational and Social Services, Cultural and Art Institutions<sup>6</sup>, in order to shape a new map of Forming spaces and places where a "care policy" is implemented (Mortari, 2021).

The space is the "body" of this innovation process shared by the University and ASL Napoli 1 Centro, who are designing and building their garden, their open and infinite living space. The Embodied Education experience seems to encourage activation of the very early stages of primary intersubjectivity. Some indicators such as the direction of the gaze, the joint attention and the joint intention that modulate the mother-child relationship in the early stages of development, seem to resurface in the interactive experience of the group. New observational criteria are emerging to further refine the methodology and broaden the area of research and application in the health care and social-educational field.

Several different trajectories of research have been generated to guide our work and increasingly interconnect Biology, Neuroscience and Pedagogy from an epigenetic and 'ecological' perspective. Our research and experience of "becoming a garden" will continue towards this direction.

#### References

Balzac H. (1833), Teoria del camminare, tr. it., Roma: Eliot, 2014.

Berthoz A. (1997). Il senso del movimento, tr. it., Milano: McGraw Hill, 1998.

Bisig D.-Pfeifer, R. (2008). Comprensione mediante progettazione, tr. it., in: Exploration in Architecture, Birckhauser.

Bolyai, J. (1832), La scienza assoluta dello spazio, a cura di R. Pettoello, Milano: Edizioni Melquiades, 2009. D'Ambrosio M. (2021 a). PerFormare spazi. O del fabbricar ad arte (per una epistemologia del vivente tecnomutante) in: Selmo, Laura, 2021, Formazione, Lavoro e Tecnologia, Milano, Franco Angeli.

Coccia E. (2016). La vita delle piante. Metafisica della mescolanza, tr. it., Bologna: Il Mulino, 2018.

<sup>6</sup> During the first year of implementation of the Memorandum of Understanding and the SmArt Lab Action Plan, the National Archaeological Museum, thanks to Paolo Giulierini (direction) and Angela Rita Vocciante (educational department), Fondazione Morra, thanks to Giuseppe Morra (direction) and the art installation 'Alberi parlanti' at Casa Morra by Luca Maria Patella, Fondazione Morra Greco with Maurizio Morra Greco (President) and Alessandra Drioli (EDI project manager), with the works of John Stezaker and the live work together with Luca Gioacchino Di Bernando, and the photography students under the direction of Aniello Barone and the scenography students under the direction of Luigi Ferrigno from the Fine Arts Academy in Naples, Alessandra Asuni, Vincenzo Pennella, Enrica Spada (artists-researchers-performers-trainers) provided their collaboration to the work of the Mental Health Care Department, directed by Luisa Russo, with the Child Neuropsychiatry Unit of Distretto 24 (directed by Cecilia Cocchiaro) of the ASL Napoli 1 Centro and the Embodied Education Group (directed by Maria D'Ambrosio) of the Suor Orsola Benincasa University in Naples.

D'Ambrosio M. (2021 b). Spazio al vivente come danzante. Tracce ed emergenze dalla ricerca pedagogica, in: Teorie Pedagogiche e Pratiche educative – Bollettino della Fondazione Vito Fazio Allmeyer, n°1-2 gennaio dicembre 2021

D'Ambrosio M.- Buono, M. L. (2020). Spazio al corpo. Proposte per ambienti generativi del 'fare scuola', in: SIPED, Atti del Convegno Nazionale – Palermo 2019, 30 anni dopo la Convenzione ONU sui diritti dell'infanzia. Quale Pedagogia per i minori?, Lecce, Pensa Multimedia, 2020.

D'Ambrosio, M.-Spada, E. (2021) Abitare la relazione. Pratiche performative per la comunità dei servizi educativi per l'infanzia a Napoli, in: Marin-Campos-Sànchez-Garzìa, Investigación e innovación educativa frente a los retos para el desarrollo sostenible, Madrid, Editorial Dykinson, 2021.

D'Arcy W. Thompson (1961). Crescita e forma. La geometria della natura, Torino: Bollati Boringhieri, 1969. Dewey J. (1934). Arte come esperienza, tr. it., Palermo: Aesthetica, 2009.

Donati, P. (1983). Introduzione alla sociologia relazionale, Milano: Franco Angeli, Milano, 1986.

Fischer K. W., Daniel D., Immordino-Yang M. H., Stern E., Battro A., Koizumi H. (2007). Why Mind, Brain, and Education? Why Now? Mind, Brain, and Education, 1(1), 1-2.

Frauenfelder E.-Santoianni, F. (2004). Mind, Learning, and Knowledge, in: Educational Contexts: Research Perspectives in Bioeducational Science, Cambridge Scholars.

Gallese V. (2005). Embodied simulation: From Neurons to Phenomenal Experience. Phenomenology and the Cognitive Sciences, 4.

Jullien, F. (2005). Pensare l'efficacia in Cina e in Occidente, tr. it., Roma-Bari: Laterza, 2018.

Mortari L. (2021). La politica della cura. Prendere a cuore la vita, Milano: Raffaello Cortina.

Murray, L. & Trevarthen, C. B. (1985). Emotional regulation of interactions between 2 month olds and their mothers., in: Field, T. M. & Fox, N. A. (eds), Social perception in infants, New Jersey: Ablex.

Pfeifer, R.-Bisig, D. (2008). Understanding by design. The synthetic approach to intelligence, Birkhauser.

Pfeifer, R.-Bisig, D. (2008). Understanding by design. The synthetic approach to intelligence, Birkhauser.

Pfeifer, R.-Bongard, J. (2006). How the body shapes the way we think, MIT Press.

Pfeifer, R.-Scheier, C. (1999). Understanding intellingence, MIT Press.

Rizzolatti, G.-Sinigaglia C. (2005). So quel che fai. Il cervello che agisce e i neuroni specchio, Milano: Raffaello Cortina.

Siegel D.J (2020). La mente relazionale. Neurobiologia dell'esperienza interpersonale, tr. it., Milano: Raffaello Cortina, 2021.

Tokuhama-Espinosa, T. (2010). Mind, brain and education science: A comprehensive guide to the new brainbased teaching. New York: Norton.

Tomasello, M. (1990). Cultural transmission in the tool use and communicatory signaling of chimpanzees?, in: S. T. Parker & K. R. Gibson (Eds.), "Language" and intelligence in monkeys and apes: Comparative developmental perspectives (pp. 274–311). Cambridge University Press

Trevarthen C. (1998). Empatia e Biologia. Psicologia cultura e neuroscienze, Milano: Raffaello Cortina.

Vigotskij, l. S. (1939), Pensiero e linguaggio, tr. it., Roma-Bari: Laterza, 2008.

Winnicott, D. (1971). Gioco e realtà, tr. it., Roma: Armando Editore, 2019.