CHOREOGRAPHIC OBJECTS

ABSTRACTIONS, TRANSDUCTIONS, EXPRESSIONS

INTRODUCTION

The recent years have witnessed a growing number of research projects that, either stemming from the side of academic and scholarly work or from the side of artistic practices and the various types of economy in which these exist, strive for asserting choreographic knowledge in yet unexplored ways. This is a growth that can be said to manifest a general intent of proliferation, an expansion towards a larger diversity in practices, knowledge and networks, and towards a better adequacy of all of these to the fast-paced changing economic environment. Together with the establishment of a globalized, distributed and networked cognitive capitalism, the production of choreographic knowledge has been changing towards novel forms of expression. With this, not only have these projects been contributing to the overall and ongoing expansion of choreographic practices, but they have also been expanding the very notion of choreography.

One exemplary assertion of this expansion was the conference "Expanded Choreography: Situations, Movements, Objects ...", which occurred on the occasion of the exhibition "Retrospective" by French choreographer Xavier Le Roy at the Fundació Antoni Tàpies, in Barcelona, March 2012. Devised by Mårten Spångberg and coorganized by the University of Dance and Circus Stockholm, the Museu d'Art Contemporani de Barcelona (MACBA), the Fundació Antoni Tàpies, and the Mercat de les Flors, with the support of the Swedish Research Council and the Swedish Arts Grants Committee, this conference was intended to "introduce different perspectives and locate a departure point for a discourse particular to choreography as an expanded practice, away from artistic research and into other worlds". Following from the diagnosis that choreography is already "turning away from established notions of dance and its strong association with skill and craft, to instead establish autonomous discourses that override causalities among conceptualization, production, expression and representation", this conference strived to affirm how choreography exceeds, on the one hand, being just "a set of protocols or tools used in order to produce something predetermined, i.e. a dance" and, on the other hand, being "a priori performative, [...] bound to expression and reiteration of subjectivity". In contrast to these perspectives, this conference served as a platform to affirm choreography both as an "an open cluster

¹ A list of paradigmatic examples can be found at the online knowledge-base of the "*Motion Bank*" (http://motionbank.org/en/content/knowledge-base), a project which will be discussed in Section 5.2.

of tools that can be used in a generic capacity for both analysis and production" and as "an expanded practice, a practice that is political in and of itself." In order to explore these notions, a variety of knowledge fields (visual art, art history, performance studies, cultural studies, dance and philosophy)² was summoned to set the conference off to explore how "Situations, Movements, Objects ...", and all the more that the ellipsis holds in potential, can express choreography beyond what choreographers traditionally do.³

The political dimension of choreography's expansion can be approached in many different ways. On the one hand, in as many as the number of singular processes and expressions that might be said to be, in one way or another, choreographic. On the other hand, in as many ways as the possible perspectives granted by each singular process. One important dimension of a process's multiplicity is epistemological. It regards the affective conditions of knowledge production and the effects of its networked distribution. In fact, it can even be said that, inasmuch as choreography is an expanded practice, it cannot unfold without creating particular instances of knowledge. Which is a somewhat evident fact when considering that, on the one hand, any technical activity whatsoever necessarily stems from previously acquired knowledge and that, on the other hand, and inasmuch as technical activities are creative, they can also serve the constitution of novel instances of knowledge. Despite expanded choreography's proffered disassociation from skill and craft, its concretizations necessarily implicate an epistemological dimension in process. That choreography is no longer bound to the expression and reiteration of subjectivity can therefore be understood from the viewpoint of knowledge's political dimension. A knowledge that is neither an isolated reality nor an immutable set of axioms, but rather an intricate dynamism of affects and effects in the political realm of the social. A knowledge that, in sum, is the transsubjective resolution of a series of problems constitutive, in this case, of choreography.

In parallel to the conference's activities, Xavier le Roy's "*Retrospective*" stood as an example of what an expanded choreography can be like.⁴ Perhaps unavoidably, the

² Notably, some of the invitees of the conference were: performance theorist and practitioner Bojana Cvejić, art historian Dorothea von Hantelmann, philosopher Graham Harman, curator Ana Janevski, dance scholar and performance theorist André Lepecki, choreographer and performer Xavier Le Roy, curator and theorist Maria Lind, dance researcher Isabel de Naverán, media theorist Luciana Parisi, dramaturge and performer Goran Sergej Pristaš, choreographer and theoretician Mårten Spångberg, sociologist Francisco Tirado, and curator and dance researcher Christophe Wavelet.

All quotes retrieved 24/03/2014, from the conference's webpage, at the Museu d'Art Contemporani de Barcelona's website (www.macba.cat/en/expanded-choreography-situations).

⁴ At the choreographer's website one can read the following description of this exhibition: "'Retrospective' by Xavier Le Roy is an exhibition conceived as a choreography of actions that will be carried out by performers for the duration of the exhibition. These actions will compose situations

whole exhibition revolved around the transmission of knowledge and its political conditions. Meaning that, by bringing choreography into the art gallery, Le Roy conveyed the necessary conditions for his work to be presented not only as performance, but more fundamentally as an interface for the transmission of knowledge. In this sense, "*Retrospective*" can be said to be a sort of performative knowledge base, one that is charged with potentials belonging to the choreographer's work and that, instead of foreclosing the experience of the work (and therefore the ways in which this can be known) with a predetermined set of definitions, allows for these potentials to resolve into expressions explicitly determined by the political conditions of their context of occurrence.

With "Retrospective", Le Roy proposes different ways for the memory of some of his previous works (notably, a series of solos) to be reactivated. Not for re-enacting any sort of identitary substance relative to each work, but for allowing that these works can be rediscovered and, ultimately, known anew (from any perspective whatsoever). In "Retrospective", what is exhibited together with some documental registers of Le Roy's first performances are sixteen performers to whom the knowledge of these works has been transmitted. Each of them is then capable of re-enacting the potentials of what they know and, together with the visitors, discover what choreography can do. ⁵ For the duration of the exhibition, the performers' remember Le Roy's works by conversing

that inquire into various experiences about how we use, consume or produce time. This exhibition employs retrospective as a mode of production rather than aiming to show the development of an artist's work over a period of time. It seeks to recast the material from the solo choreographies in situations with live actions where the apparatuses of the theatre performance and the museum exhibition intersect. Based on solo works by Xavier Le Roy created between 1994 and 2010, the work unfolds in three time axes: the duration of the visit composed by each visitor, the daily basis of labor time of 16 performers and the time of the growth of a new composition during the length of the exhibition." Retrieved 14/02/2014, from www.xavierleroy.com.

This question, "What can choreography do?", was taken up by choreographer and theoretician Petra Sabisch as a guideline to write the book "Choreographing Relations: Practical Philosophy and Contemporary Choreography, in the Works of Antonia Baehr, Gilles Deleuze, Juan Dominguez, Félix Guattari, Xavier Le Roy and Eszter Salamon". "Rather then delimiting the field of choreography to a definition of what choreography is – definition which then functions as prescriptive exclusion of that which choreography can also be, this book attempts to stretch ontology to the capacity of choreography, which is expressed in the practical question: what can choreography do? By shifting the focus from an inventory of the empirically given to the potential of choreography, a potential which encompasses the capacity of creating new relations, a stable demarcation of the object of choreography can be deviated from. This is a key aspect to an onto-ethical agenda of choreography: to unfold with precision that which choreography actually does as a can-do-determination of what choreography is. The question what can choreography do thus opposes the predetermination of choreographic operations and their generalization into a static and merely actual image of choreography's ontology. A consideration of the ontological modes of existence of choreography requires an analysis of the specific procedures of choreographies whilst encompassing, simultaneously, the genetic conditions through which their 'doing' comes into being and provides new options. Depriving the ontology of choreography of the ethical aspect of what can choreography do means to subtract from choreography the power to let new relations emerge and to divest from philosophy the capacity to explain the conditions of the new." (2011, p. 8).

with visitors and explaining all sorts of details about the memory that they have of these works, by re-enacting scores and physically perform their knowledge of the dances, by showing visitors artifacts relative to the works, and other actions of this kind. Perhaps precisely because of being like a performative knowledge base, "*Retrospective*" has been argued by dance and technology scholar Johannes Birringer to be an exhibition that epitomizes the principles of expanded choreography. In his words: "this exhibition proposed to investigate new discourses specific to dance/choreography, but also to the curatorial remit, challenging us to connect a body of work to research processes and reinterpretation-as-production, i.e. approaching specific structures and strategies of performance disconnected from subjectivist bodily expression, style and representation — re-transforming them from a set of protocols or tools used in order to produce something predetermined (a dance) to an open cluster of tools that can be used in a generic capacity for both public observation/analysis and production" (2013, p. 10).

That for Birringer the generic capacity of choreography for analysis and production is public should be understood as a recognition of this exhibition's capacity to individuate knowledge in a trans-subjective and processual way. In other words, it individuated instances of knowledge that were not given in advance, but that instead resulted from potentials and possibilities that could only be activated under the condition of a political relation between all implicated agents (including, of course, choreographer, performers and visitors). With this, together with expanded choreography's disconnection "from subjectivist bodily expression, style and representation", what is put at stake is the very substance of choreography. As with the question "What can choreography do?", the focus here moves from a substantialist and ontologically deterministic approach to the unity of a choreographic work (i.e. choreography being this or that closed set of unchanging attributes) to an exploration of how, with each event, choreography can become not only what is known to be capable of becoming but also what cannot be known in advance.

Implicitly, it is here being suggested that the political dimension of any technical process whatsoever, including choreographic ones (which are technical inasmuch as choreography, be it the traditional or the expanded kind, corresponds to a variety of tools or machinic procedures with which it is possible to modulate the quantitative and qualitative expression of events), is a necessary condition for the constitution of knowledge. In other words, it is being suggested that the political dimension of affect and relation precludes knowledge from being only individual (i.e. subjective or objective) and instead introduces at its very definition a transindividual (i.e. trans-

subjective and transobjective) dimension. The political should thus be here understood as corresponding to conditions which allow for the formation of a transindividual whose knowledge is characteristically processual. A knowledge that is not given in advance, completely, but that corresponds instead to a collective field of potentials from which both reactivations and novel experiences can emerge.

From this standpoint, it matters to indicate that it is precisely from the perspective of the transindividual character of knowledge that this study will approach choreography and its potentials to expand, i.e. to become something else than what it already is or has been. If a political non-subjectivity can be said to characterize expanded choreography, it is because the political can be conceived without recourse to constituted subjects and objects. Or, which is the same thing conversely expressed, it is because the political is constitutively transindividual, always in process and exceeding any perspective standpoint that from it and in it might emerge. Transindividuation cannot be conceived but from a political point of view, one that in turn must be conceived as the affective reality of relation. This reality does not require preconstituted subjects and objects, for it corresponds to process itself. Process, here defined as a dynamic whole where virtuality verges towards actuality and actuality towards virtuality, can very well occur without any sort of cognitive apprehension. The emergence of correlated subjects and objects in a process of transindividuation is but one way for the latter to be realized. In this one way, knowledge individuates amidst the excess of process's creative potentials. It cannot but be embedded in the field of creative potentials from which it results and in relation to which it remains; not as an unchanging reality, but rather as the dynamic unity of subjective and objective standpoints. Once this unity is disrupted by the excessive forces of process, knowledge transforms. And, together with it, so do its subjects and objects (which are just circumstantial perspectives of one particular relation attained by the ongoing dynamisms of process). Hence, it is from process's perspective that both subjects and objects must be tackled. For they are in process, embedded in it, rather than the opposite. This is their political reality.

Regarding process's excess of potentials over constituted individuals, it was Gilbert Simondon (1969, 2005), the French philosopher who in the fifties and sixties engaged in reactivating the philosophy of individuation (in order to deal with contemporary issues such as the rise of machines and the relation between culture and nature), who consistently developed not only a philosophy of transindividuation but also a conflation of ontology and epistemology, which resulted in the corollary that

knowledge can only be constituted by means of that same process. As such, here, knowledge is said to result from the same relation from which individuals derive, a transindividual relation with the capacity to generate and connect different perspective standpoints.

Simondon's philosophy has been a guideline for the inquiry synthesized in this text. It has offered a conceptual framework to approach choreography as a system of potentials and to inquire into the processes by means of which choreographic knowledge is constituted. In contrast to other theoretical standpoints, such as idealism and realism, Simondon's theory of individuation offers the possibility of taking that which most fundamentally defines expanded choreography – potentiality as such – to be a necessary condition for the constitution of knowledge (which is also the transindividual co-constitution of its subjects and objects). As such, it will be argued that the political transindividuation of choreographic knowledge can only be understood together with a constitutive field of potentials, i.e. a field that pervades individuals to the point of being the very ground of their relation.

To think the expansion of choreography in terms of potentials is to think how the different contexts where knowledge is produced and transmitted condition these same processes. In other words, it is to think how a field of relations captures potentials and how, with this capture, knowledge emerges in determinate ways. Xavier Le Roy's "Retrospective" can be situated at the intersection of different contexts of expanded choreography. There is the context for which re-enactment is only one possible designation – the re-enactment of previous performance art works –, there is the context of the encounter between dance and the museum – by means of which dance is brought into spaces traditionally dedicated to the visual arts -, and there is the context of mediation – the one making use of media other than performance to convey choreographic knowledge. All these contexts can be seen to correspond to different ways of expanding choreography. In each of them, examples that make use of choreography's potentials, i.e. of what choreography can do, can be found. All these contexts assert choreography's capacity to become different from itself, beyond what is known and towards the constitution of novel instances of knowledge. In many cases these contexts overlap: re-enactments have occurred at art galleries but they also have occurred at theatres; theatres on their turn have received the occurrence of durational events, the character of which is more close to art exhibitions than to traditional theatrical formats; the mediation of choreographic knowledge has been used both to set up exhibitions and to create theatrical performances. In turn, both exhibitions and

theatrical performances have sourced the creation of mediated archives and transmedia knowledge bases.

In order to clarify what is here being called a context of re-enactment, a few remarks need to be made. If seen as a context that has been growing throughout the last ten to fifteen years, this current of re-enactments in dance and choreography can be pinpointed as having had a marking beginning when, in 1994, the French constellation of dance-related artists designated as Quatuor Albrecht Knust⁶ performed what were by then somewhat forgotten choreographies, notably by Doris Humphrey and Kurt Jooss. That the Quatuor could re-perform what was forgotten means, on the one hand, that these choreographies had not been shown or referred to in a consistent manner for some time and indicates, on the other hand, that they were documented in ways that allowed for their re-enactment. In the particular case of these re-enactments, there were scores written in Labanotation⁷ that allowed for the re-incarnation and performance of these works (Burt, 2004). By the same token, the Quatuor reconstructed, in 1996, both Steve Paxton's "Satisfyin' Lover" (1967), and Yvonne Rainer's "Continuous Project Altered Daily" (1970), and finally, in 2000, three historical versions of "L'Après midi d'un faune" (outsourced from Vaslav Nijinsky's choreographic notations of the piece) with a single work titled "....d'un Faune (éclats)".

From this moment onwards, a series of seminal examples engaged in reactivating iconic choreographic works of dance's history can be found. Drawing from Quatuor Albrecht Knust's experience, the French choreographer and dancer Boris Charmatz has curated, in 2000, an open air event at Annency, in the French Alps, named "Ouvrée –

The Quatuor Albrecht Knust included, at different moments of its life span, artists such as Christophe Wavelet, Jerome Bel, Xavier LeRoy, Boris Charmatz, Emmanuelle Hyunh, Anne Collod, Dominique Brun, Simon Hecquet, Martha Moore, Matthieu Doze and Alain Buffard. Notably, Albrecht Knust is the name of a renowned German dancer, choreographer and Labanotation specialist, who lived between 1896 and 1978.

⁷ As explained by Labanotation specialist Ann Hutchinson Guest, "Labanotation, or Kinetography Laban, is the system of recording movement originated by Rudolf Laban In the 1920's. By this scientific method all forms of movement, ranging from the simplest to the most complex, can be accurately written. Its usefulness to dancers is obvious. The system has also been successfully applied to every field in which there is the need to record motions of the human body – anthropology, athletics, and physiotherapy, to name just a few." (1977, p. 6). Notably, scholar Natalie Lehoux has recently described it in the following way: "Labanotation is documented on vertical staffs that are read from bottom to top [...]. The staffs are made up of three lines that are divided by a centreline, to indicate the left and right side of the body. This results in a visual representation of the symmetry of the body in which each column of the staff is reserved for a specific body part. Information pertaining to the time, direction, level and specific body part, which perform movement, are contained within a single Labanotation symbol [...]. This is identified by the particular shape, shading and size of each symbol. Hutchinson Guest (1977) tells us that such an economy of information cannot be found in other notation systems. Labanotation represents the duration of movement through the length of its symbols that is proportional to the time it takes to perform. The design of a system that embodies elements of time in this manner eliminates the need for a visual reference to a musical score alongside the movement notation." (2013, p. 162).

artistes en alpage" (in the guise, it could be said, of the same kind of event that Rudolf Von Laban used to organize at Monte Verita). Here, pieces such as "Feierlicher Kanon" (1933) by Grete and Harry Pierenkämper, and "Die Welle" (1935) by Albrecht Knust, were too reinterpreted out of Labanotation scores. In 2001, dancer and by now most influential British-German artist Tino Seghal, presented an "Untitled" piece, which was proposed to be a "museum of dance", one that, instead of exhibiting artifacts and concrete objects, exhibited movements and gestures of iconic western dance styles of the twentieth century. Notably, these dances were performed by Sehgal himself, alone and naked on an empty stage, in what could be said to look like an anthological medley. More recently, in 2008, French dancer Anne Collod, one of the members of the Quatuor Albrecht Knust, dedicated herself to the remaking of "Parades and Changes", a 1965's piece by Anna Halprin. From the same year, two other pieces produced in Germany are worth to note: one is Ecuadorian dancer Fabian Barba's "Schwingende Landschaft", a reactualization of Mary Wigman's seven solo pieces from 1929; the other is German dancer and choreographer Martin Nachbar's "Urheben Aufheben", a revival of Dore Hoyer 1962-64's dance series "Affectos Humanos". Even more recently, in 2012, Spanish dancer and choreographer Olga de Soto realized a research-creation titled "Débords: Reflections on The Green Table", which, as the name indicates, took Kurt Jooss's piece as its focus of concern.

The engagement with the re-enactment of dance history is not exclusive of artists. Institutions have been, to a large extent, responsible for creating the conditions for them to be dedicated to the legacy of dance history. One very good example of this is the recent Tanzfonds Erbe, a funding initiative by the German Federal Cultural Foundation that, running since 2011, has been intending to "support the reconstruction and restaging of classic [German] dance works from the 20th century and making them available to audiences." Olga de Soto's "Débords ..." has been one such piece. And inasmuch as it mainly consists on the performative staging of screenings (of video recordings) where different interviewees talk about their experience of the piece, from its creation in 1934 up to today, "Débords ..." demonstrates how much the revisitation and restaging of historical works does not need to be a reproduction of what they looked

It is worth to note that this was the last work that Tino Sehgal created for theatre before he moved into the economy of visual arts and that recently, twelve years after, this piece has been represented in the form of three different solos performed, notably, by dancers Andrew Hardwidge, Frank Willens and Boris Charmatz.

⁹ Retrieved 25/10/2014, from http://www.tanzfonds.de/en/projekte/gefoerderte-projekte-erbe.

¹⁰ A list of projects supported by the Tanzfonds Erbe can be found at the following web address: www.tanzfonds.de/en/projekte/gefoerderte-projekte-erbe.

like in the first place, but can instead correspond the aesthetic synthesis of an archaeology of mnemonic instances. In fact, all the works mentioned so far do this. None of them is a simple function of reproduction. Rather, they are a critical archaeology of the memories at stake. And it is precisely to this kind of critical approaches to memory and history, and to the ways in which these can be re-activated in the present (specially in the present of theatrical dance), that funding initiatives such as the Tanzfonds Erbe have been dedicated.

Other curatorial initiatives of this sort, such as conferences and symposia, but also theatrical programmes dedicated to the general themes of re-enactment and the archive in contemporary dance and performance, can be listed as follows: the "re.act.feminism" curatorial project, which started in 2009 with an exhibition at the Akademie der Künste, in Berlin, and continued as a "performing archive, a growing archive and exhibition project on feminism and performance art travelling through Europe, from 2011 to 2013"11; the symposium "Archive/Practice", which took place at the Dance Archive in Leipzig, in 2009; also in the same year, the "Re-constructions and Re-imaginations" event at the Performance Space in New York; the research project named "Performing the Archive: The Future of the Past", hosted from 2009 to 2012 by the University of Bristol Theatre Collection's Live Art, and focused on developing "the interrelationship and interactivity between the archives and the communities of practitioners and scholars: to extend how academics and artists use documents of performance to inflect and inspire their own particular concerns"¹²; the 2010's "Re:Move" festival at the Kaai Theater in Brussels, dedicated to "presenting performers who make transmitting or reconstructing dance the subject of their production"¹³; the "Re-mix" cycle, at the Komuna Warsawa, in Warsaw, which ran from 2010 to 2012, and which "consisted of new productions that refer to classic works, primarily of theatre and dance, but also literature and film", and more recently, in 2013, the "Sacre 100" festival, at Hebbel am Ufer theatre, in Berlin, exclusively dedicated to choreographic works staging a dialogue with the memory of Les Ballets Russes' production "The Rite of Spring".

It is worth to note that some of the works presented in the "Re:Move" festival festival are as marking to the context of choreographic re-enactments as the ones already listed. Some notable works are: Xavier Le Roy's restaging of Igor Stravinski's

¹¹ Retrieved 25/10/2014, from www.reactfeminism.org.

¹² Retrieved 25/10/2014, from http://www.bris.ac.uk/theatrecollection/liveart/liveart GWR project.html

¹³ Retrieved 25/10/2014, from www.kaaitheater.be/en/f17/re-move?p=extra&lang=en.

¹⁴ Retrieved 25/10/2014, from http://komuna.warszawa.pl/1998/12/12/re-mix-cycle-20102011.

orchestral work "The Rite of Spring", which instead of being a revival of the choreography, consisted in a solo dance by the choreographer himself to the reproduction of a recorded version of the musical score; Boris Charmatz's "Flip Book", a dance performance made out of the transposition onto the stage and into the dancers' bodies of a series of photos included in the book "Merce Cunningham: Fifty Years", by David Vaughn, on the work of the American choreographer Merce Cunningham; British dancer and choreographer Rachel Krische's re-adaptation of a solo by Deborah Hay; and French choreographer Jérôme Bel's biographical staging of dancer Lutz Förster's experiences while working with Pina Bausch.

As these references suggest, some of these choreographers have been engaged with dance repertoires in a consistent and iterative way. Beyond the already mentioned projects by Xavier Le Roy and Boris Charmatz, Jerome Bel has been an important figure in what regards the staging of dance history. In a series of pieces dedicated to the self-presentation of remarkable performers, Bel has managed to provide the audiences with insights into the singular life of dancers. Notable examples are: "Véronique Doisneau", commissioned from Bel by the Paris Opera in 2004 (where the ballet dancer with the same name tells the audience stories from her dance career); "Isabel Torres", a show in the guise of the previous one, but with the Brazilian dancer; "Pichet Klunchun & Myself", a dialogue between Bel and the traditional Thai dancer Pichet Klunchun; the already mentioned "Lutz Forster" show; and "Cédric Andrieux", a solo piece for and with Lyon Opera's dancer Cédric Andrieux, who danced for a long time with the Merce Cunningham's dance company.

Another remarkable project engaged in the transmission of choreographic works was the "Solo Performance Commissioning Project", by American choreographer and dancer Deborah Hay, running from 1999 to 2012. In this project, "[d]ancers commissioned a solo dance from Deborah Hay. She guided and coached them in the performance of the solo during an 11-day period in a residency setting. At the conclusion of the residency each participant signed a contractual agreement to a daily solo practice of the new piece, for a minimum of three months before their first public performance." Rachel Krische was one of these dancers. She learned from Hay the solo "The Swimmer", which she presented at the "Re:Move" festival. 16

¹⁵ Retrieved 25/10/2014, from http://www.deborahhay.com/about.html.

¹⁶ Notably, the "Re:Move" festival has shown other examples engaged in the transmission of choreographic principles between artists. American choreographer and dancer DD Dorvillier has reformulated the work of German artists deufert+plischke, Vincent Dunoyer has transmitted to five dancers repertoire that he himself had once performed, and Jonathan Burrows has also worked on the theme of translating dance.

This list of initiatives, from artistic projects to curatorial ones, is not intended to be comprehensive of the context of choreographic re-enactments. It has the sole purpose of demonstrating the large investments that have been recently made by the dance community to deal with its own history. Another perspective that reflects this great investment regards theoretical practices and scholarly work. The context of reenactments has been extensively discussed by scholars such as Gabriela Brandstatter (2000), Diana Taylor (2003), Myriam van Imschoot (2005), Rebecca Schneider (2011), Inge Baxmann (2007), André Lepecki (2010) Amelia Jones and Adrian Heathfield (2012), amongst others. Both from this perspective and from the perspective of artistic research, re-enactment is only one possible designation of this context. In fact, the variety of procedures that have been used by artists to activate the ghosts of past choreographies is great and many different approaches can be depicted in them. Reactivation, re-performance, reinterpretation, revisitation, remaking, revival, restaging, reformulation, resetting, reappropriation, retrospective, retransmission, retranslation, reconstruction, reimagination, reactualization, reproduction, remix, and so on, are all possible notions for understanding what these artists and initiatives have been doing and how. Importantly, all these notions can be said to share an archaeological character. All of them perform the archaeology of choreographic sites, a methodological umbrella that allows artists, theoreticians and institutions to not only bring into the present what has been generated in the past, but to also assure that this reactivation is to some extent performative, i.e. that it follows from bringing into the transindividual present what had been forgotten. Inasmuch as archaeology activates the past in the present, it constitutes anew the transindividual relation between knowledge and individuals. It constitutes the transindividual field of politics with novel epistemological concerns and achievements.

The second context mentioned above regards the encounter between dance and the museum. In a way, many of the examples already mentioned fit into this category. The fact that Tino Sehgal conceived his 2001's "*Untitled*" piece as a "museum of dance" can be seen as corresponding to the same approach that later took him to develop an influential series of "situations" for art galleries. Sehgal, who studied dance and economy, has not ceased to imprint in his artistic performances the mark of a choreographic thought, having managed to make his work stand out as a main reference in this context. Furthermore, the fact that the context of re-enactments is fundamentally based on an archaeological drive, one that is engaged in creating the necessary tools, methods and dispositifs for transducing choreographic knowledge from the past into the present, attests its museological character. It attests its attunement to methods of

excavation and exhibition that are proper to the museological drive.¹⁷ Therefore, inasmuch as in the encounter between dance and the museum what is shown in the latter are the re-enactments of the former, both this context and the one of re-enactments are to a large extent inextricable from one another.

A most outstanding example of how these two contexts are conflated into one another was initiated with the creation of, not a museum of dance, but a "Dancing Museum", by the occasion of Boris Charmatz's uptaking of the direction of Rènnes's Choreographic Centre, in France. This is not a museum where memory is exhibited through artifacts. It is rather one that exhibits the memory that people, and most notably dancers, have of dance. As such, inasmuch as it is a site for mnemonic activation, the museum itself dances. The character of this project, and of what is here being generally designated as the encounter between dance and the museum, is well conveyed in some passages of what Charmatz has called a "Manifesto for a Dancing Museuum". In it, the choreographer and curator writes: "We are in an exciting era in which museography is opening itself up to ways of thinking and technologies which are enabling something completely different to emerge rather than simply having exhibitions of remnants, faded costumes, models of stage settings, and rare photographs of productions. We are at a time in history where a museum can be alive and inhabited as much as a theatre, can include a virtual space, and offer a contact with dance that can be at the same time practical, aesthetic and spectacular. We are at a time in history where a museum in no way excludes precarious movements, nor nomadic, ephemeral, instantaneous ones. We are at a time in history where a museum can modify BOTH preconceived ideas about museums AND one's ideas about dance. Because we haven't the slightest intention of creating a dead museum, it will be a living museum of dance. The dead will have their place, but among the living. They will be held by the living, brandished at arm's length."18

All in all, this is a plea for the potentials of knowledge, i.e. for the conditional basis of novelty in the shared ground of the political. A "Dancing Museum" is a site of transindividuation. It is a site where the subjects and the objects of knowledge emerge from processual and political conditions. It is a site where knowledge can emerge without being predetermined by a given model or by images of what it could possibly

¹⁷ Here, I'm thinking of this museological drive as an archival drive – the museum as archive –, a dynamic dispositif of enunciation whereby determinate regimes of visibility are conveyed. For more on the archive as dispositif of enunciation see page 102.

¹⁸ The full Manifesto can be downloaded from www.borischarmatz.org/sites/borischarmatz.org/files/im ages/manifesto dancing museum100401.pdf.

be like. Moreover, the very conflation of dance with the museum, in the processual project of a "Dancing Museum", blurs the distinction between the two to the point at which, on the one hand, dance cannot be taken but to be the fruit of an archaeological endeavour and, on the other hand, the museum cannot be taken to be but the very process by means of which the memory of the past is made to be active in the present (to the point of transforming it). The conflation between the two therefore puts things into movement. And inasmuch as this movement is political, inasmuch as its conditions coincide with the ones of a transindividual knowledge, a "Dancing Museum" is a machinic assemblage of dance-making. It is a political movement for dancing knowledge.

Recently (June-July, 2014), the "Dancing Museum" was one of the focus of the festival "Foreign Affairs", in Berlin. In its program featured some paradigmatic examples how the "Dancing Museum" has been concretizing its manifesto. It is here enough to mention two: the "Expo Zéro" and the "20 Dancers for the XX Century". The latter, as the name indicates, consists in the performance of twenty dancers from different generations who, individually, "perform, recall, appropriate, and transmit solo works of the last century that were originally conceived or performed by some of the most significant modernist and postmodernist artists, dancers, and choreographers. Each performer presents his or her own museum of sorts, wherein the body becomes the primary museological container and object."19. On its turn, the "Expo Zéro" "is an exhibition without works: there are no photos, no sculptures, no videos, and no installations. Zero things, no stable object. There are, instead, artists. Spaces occupied by the gestures, by the bodies, by the stories and by the dances that each artist might think of."²⁰ Both these projects not only exhibit dance but, like LeRoy's "*Retrospective*", they act as performative knowledge bases. They convey the necessary conditions for choreographic knowledge to be discovered each time anew, again and again.

The encounter between dance and the museum can be traced back to a series of exhibitions that, in contrast to Charmatz's "Dancing Museum", have asserted the epistemological character of performance art by means of objects. Notable examples are the exhibition "Outside the Frame: Performance and the Object", which took place at the Cleveland Centre for Contemporary Art in Ohio, in 1994, and the exhibition "Out of Actions: Between Performance and the Object, 1949–1979", which took place at the

¹⁹ Retrieved 24/10/2014, from the website of the Museum of Modern Art of New York, where this exhibition has also been hosted (http://www.moma.org/visit/calendar/events/18898).

²⁰ Retrieved 24/10/2014, from the "*Dancing Museum's*" website (http://www.museedeladanse.org/fr/articles/expo-zero).

Museum of Contemporary Arts in Los Angeles in 1998. The emphasis on the relation between performance and objects that these exhibitions' names indicate is somewhat telling. For if one considers the transient character of performative events and its resistance to the requirements of traditional museological exhibitions, according to which, for anything to be exhibited, it must persist throughout the exhibition's duration, then performance itself must become permanent, it must be expressed in ways determined not by its own bias but rather by the bias of the context of its presentation. It is of course in reaction to this exercise of power of the museum over performance art that a project such as the "Dancing Museum" stands up as an alternative. Notwithstanding this contrast, these exhibitions are important to be mentioned because they make a link between the museum as archive and the technologies of retention used to mediate the memory of performance. As such, these exhibitions can be said to be part of yet another context capable of conveying choreographic knowledge: the context previously mentioned to be dedicated to the mediation of knowledge by means other than performance.

A recent example of the mediation of choreography by means of objects in the art gallery is the exhibition "Move: Choreographing You", which took place at the Hayward Gallery, in London, in 2010. In order to explore "how dance has been a driving force in the development of contemporary art since the 1960s", this exhibition presented a series of installations, sculptures, objects and scores by seminal artists in dance and the visual arts.²¹ Here, the visitor was invited to "become a participant – or even a dancer –" in the "choreographic objects" being exhibited. ²² The visitor could, for example, handle Lygia Clark's "Relational Objects", play around in Mike Kelley's "Test Room Containing Multiple Stimuli Known to Elicit Curiosity and Manipulatory Responses", move through the suspended rings of William Forsythe's installation "The Fact of Matter", and so on. All these objects manifest choreography's capacity to be conveyed by material means. All of them share the capacity to instigate movement in accordance with their own structures, i.e. in accordance with how their actual attributes condition and constrain different movement potentials. As this study will contend, this capacity corresponds to the propositional character of choreographic objects. Objects that propose determinate possibilities of movement as the conditional basis for the exploration of potentials and the learning of processes.

²¹ Notably, Tania Bruguera, Rosemary Butcher, William Forsythe, Dan Graham, Isaac Julien, Mike Kelley, Xavier le Roy, Mårten Spångberg, Wayne McGregor, Robert Morris, Bruce Nauman, La Ribot, Franz West, Lygia Clark, and the OpenEnded Group with Wayne McGregor.

²² Retrieved 24/10/2014, from http://move.southbankcentre.co.uk/microsite.

From this standpoint, the subject of this study can be clarified: "Choreographic Objects" correspond to the potentials of political conditions to individuate choreographic knowledge. This individuation can result from learning how to move across a room full of suspended rings (the very disposition and size of which limits the possibilities of movement and its quantitative range) or from learning a complex choreographic pattern by means of a choreographic score. In any case, the individuation of choreographic knowledge corresponds here to the transmission of potentials and possibilities of movement. Choreographic objects allow both for a choreographer to express thoughts and for a dancer to learn how to move accordingly. Choreographic objects will thus be argued to correspond to the vectorial arrangement of forces by means of which what is potential in thought, i.e. in a choreographic thought, is transmitted to bodies capable of learning anew how they can move.

Here implied is the fact that an object can be both concrete, such as the ones exhibited at the art gallery, and abstract, such as the virtual image (in one's memory) of a choreographed dance. Inasmuch a choreographic object must be imagined before being expressed, its expressions necessarily implicate its abstractions. The actual determination of a choreographic object requires that the concepts of the understanding regarding a determinate diagrammatic arrangement of ideas are transposed, from their virtual and abstract reality, to the concrete reality of material expressions. Notwithstanding, in order to exist, the choreographic object does not require concretization, it can exist solely in abstraction. The fact that one can remember a dance without recourse to external supports of retention attests the abstract autonomy of a choreographic object. On the other hand, inasmuch as expression brings the characteristic fuzziness of ideas into a higher degree of determination (whereby the choreographic determination of actual space sharpens the abstract reality of ideas with the definiteness of material constraints), it can be said to be a fundamental condition for the transmission of choreographic ideas between bodies. From abstraction to abstraction, necessarily through expression.

The process of choreographic transmission will be here tackled through the notion of transduction, an important concept in Simondon's philosophy of transindividuation. Simply put, transduction concerns the operation by means of which abstractions are expressed and expressions abstracted, i.e. a transfer and reconfiguration of potentials in a process of transindividuation. As such, it will be argued that transduction is the characteristic operation of choreographic transmission. It informs the individuation of choreographic objects with the transindividual relation of knowledge. It

is via transductions that choreographic objects can be understood as processes, rather than as finalized forms. Neither exclusively abstract nor exclusively concrete, but a processual structuration of potentials.

It is from this standpoint that this study will approach the excessive and transindividual character of choreographic objects. Meaning that, here, choreography will be considered as a system of individuation where abstractions and expressions dynamically relate to one another, i.e. where what most fundamentally defines choreography is both its processual character and its transductive potential. Following from this definition, this study will proceed by inquiring into the dynamisms of choreography. It will explore how transduction operates in the case of choreographic objects and how in fact both abstractions and expressions exist in such dynamic system of transindividuation. The whole study can be said to consist in various approaches to the processual character of choreographic objects. It both iterates the concern with the ingression of undetermined potentials into determined instances of knowledge and follows the relation between abstract and concrete structures in order to provide a means of understanding how the transduction of potentials is conditioned by what is given in process. All in all, it tries to tackle in different rounds how novelty exists in process and how it exceeds the determination of any object whatsoever.

The concern with novelty and with process's creative capacities, i.e. with its capacities to generate novel instances of choreographic knowledge, has been here approached under the general frame of process philosophy, of which some of the main references are the works of Henri Bergson, Alfred N. Whitehead, Gilbert Simondon, Gilles Deleuze, Felix Guattari, Brian Massumi, Erin Manning, Stamatia Portanova and Luciana Parisi. To say that this study iterates concerns or that it inquires in different rounds is to say that it proceeds by means of several trials where what is at stake is the encounter between this conceptual framework and a series of choreographic examples. All the choreographic objects discussed in this study resulted from interdisciplinary research projects. All of them correspond to the individual resolution of problems implicit in technical individuations committed to assert choreographic knowledge in the form of objects and, most notably, by mediatic expressions other than performance. Throughout this study the references to the research projects in case will help providing glimpses into the conditions of emergence of the choreographic objects discussed. For now, it matters only to indicate that the latter are: "Improvisation Technologies, a Tool for the Analytical Dance Eye", a collection of choreographic objects meant to be used as modular tools for the composition of choreographed dances, devised by

choreographer William Forsythe and published in the form of a CD-ROM (1999) by the Centre for Art and Media (ZKM) in Karlsruhe; "Double Skin | Double Mind" (2004-2010), a choreographic object devised by choreographer Emio Greco together with dramaturge Pieter C. Scholten and that came to embody different forms of expression, such as a dance workshop, an interactive installation and a CD-ROM; the choreographic objects of the "Motion Bank" project (2009-2013), notably, "Synchronous Objects, for One Flat Thing Reproduced" by William Forsythe, "No Time to Fly" by Debora Hay, "Seven Duets" by Jonathan Burrows and Matteo Fargion, and "Two" by Bebe Miller and Thomas Hauert; and finally the choreographic objects of the "Reactor for Awareness in Motion" (2011-...), a research project of the Yamaguchi Centre for the Arts intended to develop software and hardware tools for dance creation and education.

The encounter between some key notions of process philosophy and a series of choreographic objects is not here intended to provide an interpretation of the latter with the notions of the former. It is rather intended to create a field of tensions by means of which a whole other level of individuation is to be attained. In this sense, that the text hereby presented corresponds to the synthetic resolution of a process of creation means that its conditions of individuation are to be found in the tensions, problems as it were, implicit in this encounter. It is by means of confronting ideas – the ideas of process philosophy, on the one hand, and ideas of the processes by means of which these choreographic objects individuated, on the other hand – that this study will proceed. In this way, it will strive to posit the problems implicated in this encounter and, furthermore, to bring them into some sort of resolute determination, i.e. into the point at which possible cases of solution can be proposed, if not as definite answers, at least as indicative orientations.

All the choreographic objects discussed in this study participate in the context of mediation of choreographic knowledge. As the other two, this context is characteristically driven by archival and archaeological tendencies. Some of the examples already mentioned attest how the mediation of choreographic knowledge by means other than performance has been used both in the context of re-enactments (of which Olga de Soto's "Débords ..." is a good example) and in the context of the encounter between dance and the museum (of which exhibitions such as "Move: Choreographing You" are good examples). But what is perhaps most determinant in regard to this context is its history. For if choreography can be, to a great extent, equated

with what results from the encounter between dance and technologies of writing, 23 then it can be said that, since the moment in which it was established as an "apparatus of capture" (Lepecki, 2007), choreography didn't stop making use of technological modes of retention, creating mnemonic artifacts for the transmission and remembrance of dances. In this sense, out of the three, it is perhaps this one context that is most endemic to choreography. But despite its historical character, it matters here to approach it as a particular mode of expanding choreography. This is not to say that choreography's history doesn't matter. It is in contrast to and in relation with its history that choreography's expansion can be best tackled. For this reason, choreography's history will be briefly discussed throughout this study, specially in regard to the problematic relation between the event of performance and the mnemonic inscriptions of writing. The expansions of choreography occurring by means other than the performance of dance should be thought as relaying this relation and as striving to deal with its problematic structure in new ways, i.e. to explore novel solutions for an old problem. Not only this, but inasmuch as the mediated expansion of choreography proceeds by exploring what choreography can do, the individuation of choreographic knowledge corresponds here to an intricate process of technical transindividuation. It is together with the exploration of what technology can do that the exploration of choreography's potentials finds, in the frame of this one context, a most creative, political and affective relation.

All the choreographic objects discussed in this study share this one aspect: all of them resulted from processes whereby the exploration of choreography's potentials coincided with the exploration of what technology can do. Not technology as something that simply corresponds to tools or functioning equipments, but rather technology as the very process by means of which a process of transindividuation comes to constitute instances of knowledge that regard how to iterate procedures, i.e. a knowledge pertaining to transmittable and repeatable ways of doing. These are not the only examples of choreography's expansion in terms of mediation. In order to provide a glimpse into the contemporary context of research-creation where the mediation of choreographic knowledge is a main focus, it is worth mentioning here a series of projects that, like the ones that generated the choreographic objects discussed throughout this study's chapters, correspond to interdisciplinary processes of research-creation.

²³ See reference to the beginnings of choreography in the European Renascence on page 99.

A recent project that is most worth to mention was called "Enhancing Choreographic Objects" (EChO). Co-directed by social anthropologist James Leach and dance and new media scholar Scott DeLahunta at the University of Aberdeen, this was a research-creation project running in between 2012 and 2013 and intending to bring into collaboration scholars from various fields of research, digital artists, exhibition and performance venues, and the Wayne McGregor | Random Dance Company (WM|RD). This collaboration resulted in a variety of things: the dance performance "Atomos", which premièred at Sadler's Wells in London; the exhibition "Thinking with the body: Mind and movement in the work of Wayne McGregor | Random Dance", which took place at the Wellcome Collection, in London as well; the construction of a choreographic software named "Choreographic Language Agent" (CLA); the digital installation titled "Becoming", which was created with the CLA software and featured at the afore mentioned exhibition; and the "Mind and Movement - Choreographic Thinking Tools" publication, a "choreographic resource [...] designed to develop students' personal imagination skills in order to enhance the creation of new and original dance movement"²⁴. One of the reasons why this project is worth mentioning regards the fact that all its results have been conceived as choreographic objects. Not only was the choreographed dance thought as such, but also the choreographic software, the algorithms programmed with it, and the published choreographic resources were considered as being choreographic objects on their own. Specially in what regards the digital tools in use, this project strived to achieve "a new genre of digital adjuncts to dance making called 'Choreographic Objects' made to both enhance, and to illustrate, choreographic creative processes". And the main reason for this is that "Choreographic Objects are providing insights into the valuable knowledge that choreographers and dancers create when they investigate form and structure through movement in the context of making dances. The result is that 'choreographic thinking' is becoming available not only for the purpose of educating audiences, but also in ways that scientists and philosophers can study, architects and designers can utilize, and other artists can draw upon."25

Importantly, the *EChO* project draw on a previous one, called "*Choreographic Objects: traces and artifacts of physical intelligence*", also coordinated by Leach. This latter project consisted of a series of three workshops, occurring throughout 2008 and

²⁴ Retrieved 12/10/2014, from http://www.randomdance.org/creative_learning/mind_and_movement_ch oreographic thinking tools.

²⁵ Retrieved 12/10/2014, from http://gtr.rcuk.ac.uk/project/EF772A21-502F-4A7E-B105-A7B35407485 C.

2009, and it was intended to engage theories of knowledge production and knowledge transfer, as established in the social sciences, with the choreographic work of Wayne McGregor, Siobhan Davies, William Forsythe and Emio Greco | Pieter Scholten. Attesting the transindividual character of knowledge production involved in the individuation of choreographic objects, in this project "social scientists were able to show how the social relations involved in the production of Choreographic Objects were important in shaping them, highlighting both positive and negative potentials generated by the context and process of their construction. The social scientists were able to draw on theories of embodied, skilled and practiced-based knowing, and of its translation into representational media to illuminating effect. This project demonstrated that social science has a key role in enhancing the awareness of the makers of Choreographic Objects and thereby ensuring more effective outcomes from their endeavours."²⁶ All the results of the *EChO* project attest precisely this: they attest how the exchange between contexts of research (academic, artistic, technological and social) informs the technical process of transindividuation with potentials that belong to neither one of the parts exclusively, but that are activated only on the condition of their singular relation.

Another relevant project in what regards bringing different disciplines together for the creation of choreographic objects was the "*Transmedia Knowledge Base for Performing Arts*" (TKB), coordinated by cognitive linguist Carla Fernandes at the New University of Lisbon, from 2010 to 2013. The *TKB* was "a transdisciplinary project at the crossings of cognitive linguistics, video annotation, performing arts documentation and new media technologies, [aiming] at building a dynamic "*Knowledge-Base*" (KB) to host different kinds of working materials, annotated documents and complete pieces of all interested authors in sharing their creative processes [...]." Notably, this project developed two different software tools: a video annotation software for tablet computers called "*Creation Tool*" (CT) and the *KB*, a web based platform conceived to host contents of various sorts and specially those created with annotation softwares such as the *CT* or the *ELAN*²⁸. In the frame of this project, what is perhaps the closest expression to an object capable of conveying the implicit knowledge of a choreographic work, is the annotation made on the video registers of Rui Horta's choreographic piece "*Set Up*"

²⁶ Retrieved 12/10/2014, from http://gtr.rcuk.ac.uk/project/EF772A21-502F-4A7E-B105-A7B35407485 C.

²⁷ Retrieved 12/10/2014, from tkb.fcsh.unl.pt/.

²⁸ https://tla.mpi.nl/tools/tla-tools/elan/.

by a group of linguists.²⁹ This choreography has been dissected into sections and categories where each remarkable event is indexed and commented upon. In this way, the implicit knowledge of a complex choreographic work is made explicit.

In this guise, the "Siobhan Davies Archive" project, dedicated to the work of the choreographer with the same name and co-ordinated both by her and by dance scholar Sarah Whatley, in a collaboration between the Siobhan Davies Dance and the Coventry University, "began in January 2007, with the aim of bringing together all of the materials and documentation associated with Davies' choreographies into a single collection." Notably, "it is the first online dance archive in the UK and contains thousands of fully searchable digital records including moving image, still image, audio and text." In regard to the composition of expressions intended to facilitate the transmission of choreographic knowledge, this archive holds what have been called "Kitchens" – "prototyped new presentations of the digital objects" – for Davies' choreographies "Bird Song" and "In Plain Clothes". These are digital objects that bring together the "ingredients' organised according to their role in the making or the 'cooking' of a work". ³⁰

Perhaps it is not by chance that all these projects, and the ones to be further discussed, have explored in unprecedented ways the possibilities that digital programming offers to the creation of choreographic objects. On the one hand, the multimedia capacities of the digital domain allow for hosting and interrelating the different knowledge fields brought together by these projects. On the other hand, inasmuch as digital programming is capable of automating procedures, it can simulate creative processes, being as such a most suitable platform for conveying the transduction of choreographic knowledge and stimulating learning. The coincidence between the capacities of both choreographic and digital objects has been a guideline for this study. Because, if on a first approach the two can be said to be fundamentally different (in the same way that the event of performance and the inscriptions of writing can be said to be irreducible relatively to one another), at a closer look the transductive capacities of choreographic objects can be addressed to the determination of ideas, i.e. to the diagrammatic arrangement of the concepts of the understanding, in the same way as the algorithms of digital programming can. In fact, to say that the coincidence between choreographic objects and digital objects has guided this study is to say that its

29 Which can be accessed at: http://img.di.fct.unl.pt/tkb/content/setup-part-1-0.

³⁰ Retrieved 12/10/2014, from http://www.siobhandaviesreplay.com/index.php?view=sddda. The "*Kitchens*" of both choreographies can be accessed at http://www.siobhandavies.com/thekitchen/.

main problem resulted from bringing into relation the notion of the diagram of ideas and the notion of algorithmic procedures. Both these notions can be said to characterize choreographic objects: for a dance to become choreographed, an idea of coordinated movement needs to acquire determination, i.e. to acquire a structure that is both knowable and transmittable. The structure of an idea is its diagram, it "maps the interrelation of relations" (Massumi, 1992, p. 16) necessary for a determinate field of potentials to participate in the individuation of a corresponding expression. As it will be argued here, the choreographic object itself cannot be considered without the dynamic processes by means of which an idea and its expressions are related. And precisely because of this, i.e. because of the fact that the same diagrammatic arrangement of ideas can give birth to a series of different expressions (such as the many results of the EChO project, all of which express differently the same choreographic object or, in other words, the same assemblage of choreographic ideas), the choreographic object must be acknowledged to have an iterative character, i.e. to be capable of resuming itself in accordance with a determinate model of transduction. Which brings us to one of the definitions of choreographic objects used throughout this study: a choreographic object is a "model of potential transition from one state to another in any space imaginable" (Forsythe, 2008, pp. 5-6). That this definition was proffered by choreographer William Forsythe to define all the objects of his choreographic work (i.e. installations, performances and digital objects) attests not only the general potentials of choreographic objects but also their iterability. That a model is iterative means that it is algorithmic, that it can be repeated (automatically or not) in order to generate a series of expressions (more or less different from one another). In sum, it will be the contention of this study that the choreographic object is both diagrammatic and algorithmic. Or, in other words, that it is because of the algorithmic character of its diagrammatic ideas that the choreographic object can acquire a technological status, i.e. that it can be said to correspond to a knowledge (logos) pertaining to a way of dancing (tekhné).

In order to pursue such thesis, this study will start by laying out the fundamental concerns to any thought of choreographic knowledge. In other words, it will start by inquiring into the ontology of bodies and movement, which are fundamental systems of reference for the constitution of choreographic objects. Notwithstanding, the concern with "what is a body?" and with "what is movement?" was here substituted with the concern of "how does a body move?" (or, "what happens to a body when it moves?") and of "how is movement related with novelty?". Such concern is expressly addressed throughout Chapters 1 and 2. On the one hand, the first Chapter will discuss the

relationship between time and space in the movement of bodies via the philosophy of Henry Bergson (Section 1.1). It will specifically address the philosopher's take on the theory of multiplicities and, with this, discuss the relationship between intensity (i.e. qualities) and extension (i.e. quantities). This will serve to make the case that bodies in movement are irreducible to positions and therefore must be granted to implicate undetermined potentials that are unaccountable only in terms of extension. On the other hand, this first Chapter will introduce the encounter between dance and technology as a problematic field of potentials (Section 1.2). It will argue that such encounter is only capable of creating novel instances of choreographic knowledge if the indetermination of its constitutive potentials is not only acknowledged but also inclusively mobilized. How can this be done and, in particular, how can it be done when choreographic knowledge is to be expressed by digital means, will be the question posed here. In a sense, this study's remaining Chapters will build upon one another in order to answer this question. In relation to the hypothesis that choreographic objects are necessarily diagrammatic and algorithmic, such question can be understood in the following way: a diagram is a structure of potentials that can be resumed iteratively (i.e. algorithmically). Hence, this is a question of how to create choreographic objects that express novel instances of knowledge.

This question has been formulated by philosopher Erin Manning (2009, pp. 61– 76) in terms of how to create a truly "technogenetic body" by means of the encounter between dance and technology. The answer she essays by drawing from Simondon's philosophy is somewhat expectable: the virtuality of movement must be tapped into, by the encounter itself. In other words, even when the case regards the computation of data (i.e. dance's gestures) by digital algorithms, the encountering parts must be made to affect one another beyond what in each of them is given (i.e. determined). Only in this way are the potentials of the encounter between dance and technology to be mobilized beyond what is known and knowable. Only this will allow for the encounter to be truly technogenetic (i.e. technically creative) and individuate novel instances of choreographic knowledge. In this argument, one question remains problematic: how do digital media and potentials relate? Manning's approximation to this question is short: "Techniques for technogenetic emergence must become part of the technology's interface: we must develop techniques that create new associated milieus never distinct from the ontogenetic body. Technological recomposition must no longer be inserted into a body-system: it must be emergent with it." (Ibid., p. 75). In fact, this does not really answer the question. Rather, it is a corollary that expresses how the encounter between

dance and technology must be thought and developed in order to be creative. From this standpoint, this study will follow Manning's direction in drawing from Simondon's philosophy in order to develop it further. As already mentioned, this will allow to define choreographic objects in terms of potentiality, i.e. as processes that implicate the potentials mobilized by the encounter between dance and technology. Nevertheless, this study will also pursue the understanding of how can these potentials be thought with regard to the expression of choreographic objects by digital means, i.e. how are the potentials of the digital domain to be thought (Chapter 6).

Chapter 2 will expound Simondon's philosophy of individuation. On the one hand, this will allow for justifying the substitution afore mentioned of an ontological concern (i.e. "what is?") by an ontogenetic one (i.e. "how is?). Simondon's argument that "being is becoming" postulates the primacy of difference over identity in a way that is tantamount to the excess of being over itself. In a sense, this coincides with Bergson's understanding that, for a body to be in movement, it must move as a whole (i.e. as a dynamic system of potentials, constantly moving in between abstraction and expression). But beyond this, Simondon's philosophy will also allow for an understanding of how movement can be in fact creative, out of mobilizing a system's potentials. Such understanding will provide the means to think movement not only in relation to one single body (i.e. the body in movement) but also in relation to processes of individuation, i.e. in relation to any kind of system that is capable of constituting novel individuals. Of the many domains that Simondon's philosophy deals with - the physical, the vital, the psychic, the social and technical –, the concern here is with the latter. It matters to understand the implications that Simondon's thought might have in regard to technical systems, so that the encounter between dance and technology can be approached in terms of the necessary conditions for the emergence of novelty.

Precisely from this standpoint, Chapter 3 will develop concepts with regard to choreography that can only be properly understood under the light of Simondon's philosophy. Or, better yet, it is not that choreography is here to be thought in accordance with this one philosophical system of thought. Rather, it will be argued that, insofar as choreography is to be understood as a system of potentials capable of individuating novel instances of knowledge, the concerns that are on the basis of Simondon's philosophy are most apt to conceptualize it. Hence, this philosophy's fundamental concepts will be used to approach choreography and inquire into the dynamisms by means of which it comes to express itself in novel ways. Throughout this chapter, the notion that choreography is not tied to the performance of dance will serve both the

assertion that one same choreographic object can be expressed in many different ways and the argument that, in order to be like this, instead of being a compound of extensive forms in space and time, the choreographic object is more like a topological figure: a continuum of potentials that, because of being structured parametrically, can express different forms while remaining the same (notably, Section 3.2 will discuss such definition). The first case to be discussed is the generic relationship between dancing and writing, constitutive of Western modernity's choreographic project (Section 3.1). In this case, it will be shown that, insofar as these different domains express one same choreographic object (e.g. by means of performance and choreographic notation), they derive from one same structure of potentials. As such, they express identical instances of choreographic knowledge, according to the limits of their material possibilities. The second case to be discussed is William Forsythe's seminal collection of choreographic objects: "Improvisation Technologies: A Tool for the Analytical Eye" (Section 3.3). By looking into one of this technologies' topological character, the choreographic object will be defined as being, first and foremost, an abstract system of potential transductions. In this sense the choreographic object is apt to transfer its potentials across domains and, with this, not only express itself differently but also instigate the individuation of knowledge (i.e. to become conceptually prehended). For such reasons, it will be the contention of this study that the choreographic object can't be reduced neither to expressions nor to abstractions. Rather it needs to be considered as an open whole that always exceeds its determinations (by reasons of its potentials).

What is here being called a structure of potentials will be also designated as "diagram". This notion will not only be addressed in Chapter 2 with Simondon's concept of "technicity" (i.e. the diagram of technical individuation), but it will also be approached in different ways throughout Chapters 4 and 6. Notably, the former Chapter will start by discussing philosopher Gilles Deleuze's theory of ideas in order to layout how choreographic ideas exist in between abstraction and expression (Section 4.1). It will be shown how, according to this theory, ideas are diagrammatic in the same way that choreographic objects are here being said to be: they relate virtuality with actuality according to a topological structure of potentials. That such structure is inherently problematic and that the highest degree of an idea's determination corresponds to actual cases of solution for the problems in case, is a postulate with which Deleuze's theory of ideas will facilitate the understanding that, in the case of choreographic transduction, the transmission of physical principles of individuation, from one domain to another, is necessarily accompanied by a transmission of concepts. In order to exemplify such

conceptual structuration of the domains chosen to express choreographic ideas, Section 4.2 will discuss Emio Greco and Pieter Scholten's Double Skin/DoubleMind choreographic object. Since this is expressed both in different domains and with different forms, the relations between its topology, its problematic potentials, its conceptual structure and its expressions will tackled via the notion of diagram. Furthermore, Section 4.3 will continue to develop this notion, still in relation to Deleuze's philosophy, but also in relation to how it has been conceptualized by philosophers such as Charles S. Peirce, Michel Foucault, Deleuze & Guattari, Brian Massumi and Manuel DeLanda. Such discussion is intended to provide the means to better understand how, in the encounter between dance and technology, that which cannot be known is, notwithstanding, determinant with regard to the emergence of individuals. The unconscious diagram of ideas (designated here as the "abstract machine", cf. Deleuze & Guattari, 1987) will in this way be argued to be not only a fundamental part of choreographic objects but also the very ground of the novelty that these are capable of expressing when transduced across domains.

From this standpoint, the expression of novel cases of solution with regard to the problematic ideas of choreographic objects will be addressed from the perspective already posed (Section 3.1) of the asymmetry between dancing and writing. In order to do so, Chapter 5 will discuss a series of choreographic objects that, rather than being expressed only by means of digital displays (like the case studies previously discussed) are expressed by means of digital computation (i.e. the choreographic objects' conceptual structure has been digitally programmed). On the one hand, this will allow both for distinguishing the dancing body from the gestural body (i.e. the representations of choreographic notation) and for discussing these examples as cases of solution for the problematic relation between the two. On the other hand, it will allow for a better understanding how different choreographic ideas can be computed and digitally expressed. Throughout Sections 5.1 and 5.2 the choreographic objects to be discussed are the "Gesture Follower" – a software built into the digital expressions of the "Double Skin/Double Mind" -, and the already mentioned "Motion Bank's" online scores and "Reactor for Awareness in Motion's" motion capture and animation software. That these choreographic objects' could be transduced into the automations of the digital domain will make the case that their diagrammatic ideas are characteristically algorithmic and, therefore, resumable across domains. Hence, in accordance with the definition given by William Forsythe, choreographic objects can be seen as diagrammatic algorithms capable of transducing problematic ideas (of movement).

If such potential is granted to these choreographic objects' digital expressions, then the question is how to conceive of the digital domain's potentials. In this study's final Chapter, the understanding that the encounter between dance and technology is capable of creating novel instances of knowledge will be furthered by coming to terms with the hypothesis that the digital domain has potentials of its own. Beyond the argument that, in order for technogenesis to occur, the digital domain must be embedded in a milieu of potentials other than its own, i.e. in an analog milieu, Chapter 6 will pursue the notion that there is more to digital computation than itself can compute. As it will be shown, this is tantamount to the hypothesis that digital computation is infected by random quantities of data and that, precisely because of this, it is opened to an infinity of quantitative potentials that grant it the very status of thought. In this sense, in contrast to reductionist perspectives of the digital domain, the algorithmic computation of data will be argued to be always excessive in relation to itself. Such notion will be fundamented by making use of both Andrew Goffey's conception of algorithms, Gregory Chaitin's theory of algorithmic complexity and Luciana Parisi notion of "soft(ware) thought". Moreover, such perspectives will be contrasted with two different ontological perspectives on objects: Graham Harman's object-oriented ontology and Alfred N. Whitehead's process-oriented ontology. With this, it will not only be shown that digital potentials must be conceived as random and irreducible quantities of data, but also that algorithmic objects must be defined as the physical and conceptual prehension of these same quantities. As such, even if choreographic objects are digitally expressed, this will make the case that they are capable of more than what, at any moment, might have been determined as a case of solution for the problems of their ideas. In short, choreographic objects as the excessive buy yet structured potential to individuate novel instances of knowledge with regard to the movement of bodies.

Finally, this study will conclude with a proposition regarding the necessary conditions for the activation of novelty in processes of technical individuation. It will be argued that, inasmuch as novelty is a conditional force of technogenesis, the latter can only come about by means of a constitutive, yet subjectable to enhancement, openness to infinity. This infinity is none other than the one of the undetermined potentials of ideas existing amidst, immanently, the actual possibilities of technical individuation. The more this indetermination is made to ingress, affectively, into the technical resolution of the problems of ideas, the more novelty will increase and the more the overall development of a system of individuation will become infected with its creative potentials. Hence, it will be argued that, though novelty as such is, by definition, not

predictable and thus not subjectable to direct regulation, there are actual conditions that can intensify its production and amplify the technical system's capacity to be truly creative and evolutive.