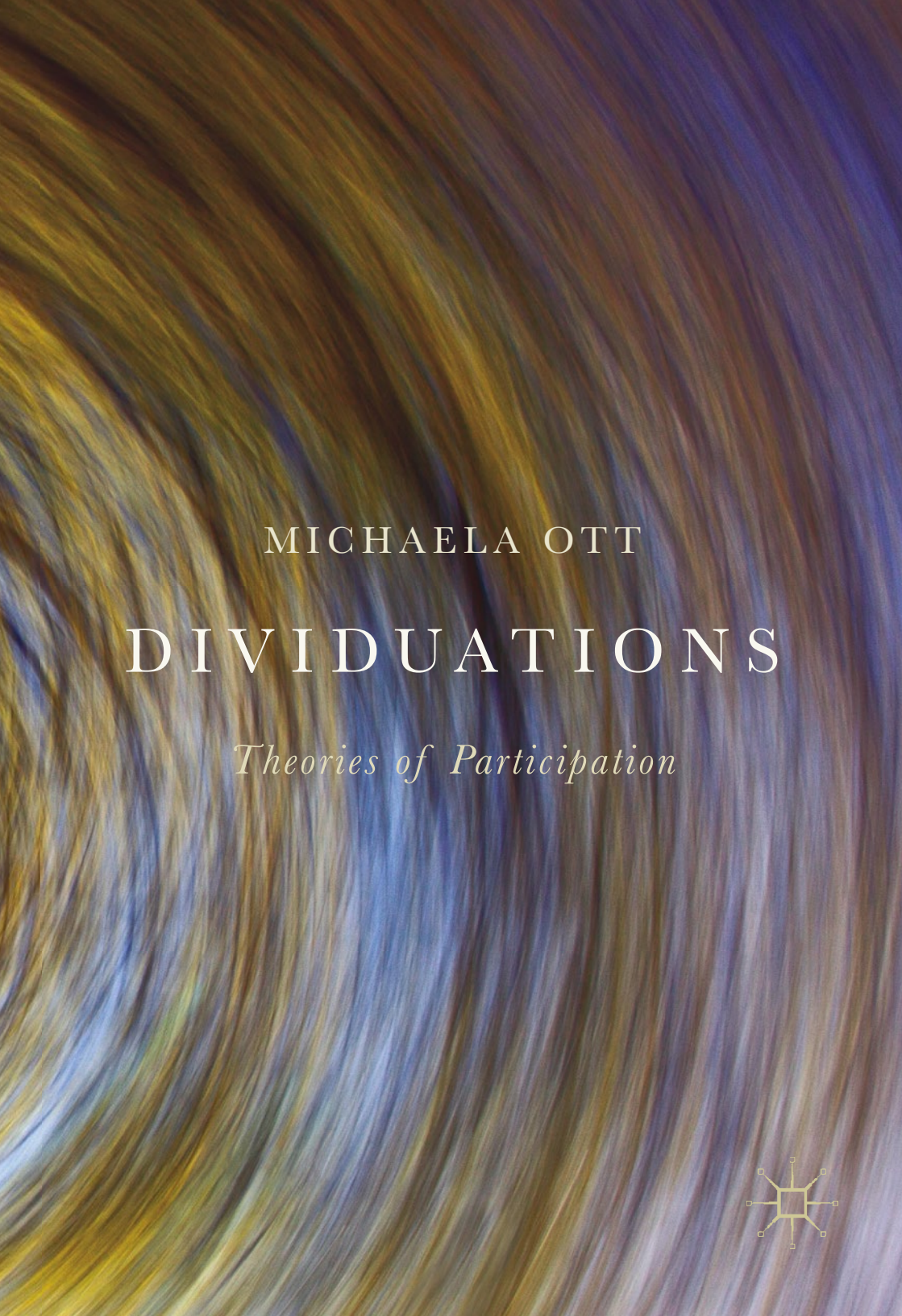
MICHAELA OTT
DIVIDUATIONS
Theories of Participation

Dividuations

"A bold and wide-ranging investigation of the hinterland between the 'I' and the 'we'; one that explores the conditions for radically redefining forms of subjectivity and collectivity in ways that can positively embrace the dividuations that make us so much more than the individuals we sometimes think we are."

—Iain MacKenzie, *Director of the Centre for Critical Thought, University of Kent, UK*

"Ott takes on a particularly weighty task, to redefine our 'becoming-world' in the face of demands imposed by modern revelations of the most manifold 'interpenetration relationships' and novel modes of subjectivation. She offers her readers the new term 'dividuation' for this. Ott's promotion of dividuation is coupled with an impetus to diagnose our era. Today, she argues, subjectivation is no longer to be understood as individuation, but as dividuation."

—Bernd Bösel, *Professor in Media Theory and Media Studies, University of Potsdam, Germany*

"Ott introduces the term 'dividuation' into the debate on new subjectivations. This diverse overview of various different social areas in bio(techno)logical, socio(tech)nological, and aesthetic/artistic analyses undoubtedly emphasises the relevance of the arguments presented by Michaela Ott. Herein lies the innovative character of her work."

—e-Journal für wissenschaftliche Rezensionen Institut für Theater-, Film- und Medienwissenschaft an der Universität Wien.
https://rezenstfm.univie.ac.at/?action=rezension&rez_id=364

Michaela Ott

Dividuations

Theories of Participation

palgrave
macmillan

Michaela Ott
Berlin, Germany

Translated by Alison Kirkland

ISBN 978-3-319-72013-5 ISBN 978-3-319-72014-2 (eBook)
DOI 10.1007/978-3-319-72014-2

Library of Congress Control Number: 2017960894

Cover illustration: Liz Claire / Alamy Stock Photo

Printed on acid-free paper

This Palgrave Macmillan imprint is published by Springer Nature
The registered company is Springer International Publishing AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Foreword

This philosophical study was primarily written for those who are curious about other forms of self-definition in turbulently changing times. It is for those experiencing a creeping doubt regarding their undividedness—their individuality—because they have discovered that their fortunes in life depend upon a large number of factors, which include other persons both close to home and far away, various milieus, aesthetic/technological circumstances and time-bestowing events. They see themselves less as masters of their fate than as servants of their life constellation. Insights of this kind suggest that we understand ourselves in terms of participation, in many directions and on various levels. The concept of the individual, introduced as a Latin translation of the Greek atomist world view in the first century BCE and later made general for political and economic reasons, is increasingly recognised as misleading and ecologically and ethically disastrous.

Non-Western identities appear to be more familiar with participation necessities, be they cultural or economic/imperialist in character, and thus develop philosophies of a spatiotemporal interwovenness, which, today, we are compelled to recognise as the fate of a migrating and self-globalising humanity.

That we are embedded in dividuation processes is attested to by this English version of an originally German book, which was undertaken so that a greater number of persons could consider the concept proposed in

it and engage in an ongoing debate with it. So that non-German speakers could also test the usefulness of this new terminology for contemporary understandings of the self, of biological and socio(techno)logical ensembles, of cultures and artworks, the book was translated into the contemporary lingua franca in a highly reliable and elegant manner by Alison Kirkland, for which a great deal of thanks is due. I would also like to thank all those who have contributed to the success of this book and thought initiative through related concepts and attitudes. The hope is that unforeseen condividuations will be set in train that, through sharp-eyed moderation of their ties with others, make it plain that we can only speak to one another if we affirm our dividuations.

Berlin, Germany
2018

Michaela Ott

Contents

1 Introduction 1
Outlining the Problem 1
The Ambivalence of Participation 8
Individual and Individualisation? 19
From Individuation to Dividuation 32
References 41

2 Individual/Individuality/Individuation 43
Atomist Approaches 43
Individual as Universe, Nature, World Spirit 50
Anthropo-Social Individuals 69
The Endangered Mass Individual 95
World-Society Individuations 107
References 117

3 Dividuals/Dividuations 123
Quasi-Ontology of Participation 126
Transindividuality and Condividuation 130
References 143

4 Bio(techno)logical Dividuations 145
Species (In-)Dividuations 150
Human Dividuations 157
Ecologies and Bio-diversity 165
Bio-technological and Bio-political Dividuations 170
References 178

5 Socio(techno)logical Dividuations 183
World Society (or Societies) 183
Knowledge Dividuations 202
Work, Production and Resources Dividuations 213
References 225

6 Aesthetic and Artistic Dividuation Processes 229
Dividuation and Aesthetic Difference 232
Exhibition Dividuations 236
Dividual Artworks 242
References 247

Index 249

1

Introduction

Outlining the Problem

Even before matters of personal perspectivation come into play, we humans have to begin with the insight that we are born blind, if only because our organs of perception absorb only a very narrow range of physical light and sound waves. Today, mediatic methods of observation and expanded cognitive interests, macro- and microscopic technologies, gazes rendered keener by eco(techno)logical concerns (as well as appropriations and valorisations by the mechanisms of control) lead us to the insight that we are far more blind than we suspected. Only a vanishingly small fraction of what occurs around us and passes through us enters into our conventionally individualised self-understanding. After all, we do not continually pan like film cameras, instead tending to focus on what is most proximate to us and segment events from our own eye level, thus failing to notice most of the things that co-exist subliminally within our visual and auditory field: most of what happens to us and passes through us is below our threshold of perception. We barely begin to sense how many orders of events not attuned to human perception we are involved in.

As today's critical epistemological perspective teaches us, contemporary becoming-world needs to be understood as an expanded "principle of

M. Ott, *Dividuations*, DOI 10.1007/978-3-319-72014-2_1

relativity,"[1] one that constrains us to adopt perspectives informed by various lenses and to direct them at the multi-scalar levels of the real, at biological, sociological, anthropological and artistic levels, with no level's structure able to be represented on another level or grasped by means of the same cognitive framework. Advancing into the realm of the infinitely small, microscopic observation and recording instruments demonstrate the impotence of our capacity for visualisation and tell us of micro-organic processes that human existence is linked to without being aware of it. By focusing on the little-noticed substratum of human existence, they report that living organisms far below our threshold of perception inhabit us and contribute to our psycho-physical constitution. We are informed that we are intergrown with "a thousand billion friends" (Ackerman 2012) and have been allocated to unknown spatio-temporal order systems and their dynamics. Our senses do not conceive of or perceive them. Moreover, the new bio-technologies hold that they can calculate and demonstrate that we share a large portion of our genetic dispositions with non-human others. The articulation of genes is also said to be performed by micro-organisms, viruses and parasites that respond to temporalisation values and use copy-and-paste procedures to translate genetic information into a complex networked structure—thereby contributing to the articulation of our destiny. As if that weren't enough, we are called upon to think of ourselves as integrated into and partly determined by bio-chemical circuits and the internal dynamics of comprehensive ecosystems, before imagining ourselves placed within a multi-dimensional universe, whose relations of force also co-determine us.

On the macroscopic-anthropomorphic level, the promise of increased vitality prompts us to joyfully insert ourselves into worldwide communications and mediatised forms of becoming-world-society. Thanks to highly potent interconnection and storage devices, we enter into time-consuming and emotionally intense relations of interdependence with human and technological others; we create virtual alliances for the purposes of stimulating interest, accessing information or coordinating action. We experience ourselves as affectively and cognitively linked to strangers, participating in their intimate utterances or acts of protest, and we vitalise ourselves by means of imaginary participation in their activity.

Comprehensive self-care and self-government: that is the implicit promise of the palm-sized global interconnection device!

Recently, of course, we have become more aware of how the very technological apparatuses that bring about a spatio-temporal potentiation of our relationship to ourselves, carrying us off on virtual walks across foreign beaches or through exquisite galleries and fuelling our fantasies of self-empowerment through unrestricted connectedness and, most importantly, our self-chosen multiplication of possibilities for democratic participation, also unwittingly affect, condition and help subjectivate us, on a level far below our threshold of awareness. After all, the sensory apparatus of digital devices not only affects our psycho-physical constitution as imperceptible micro-organisms and other environmental factors do, it also latches onto our capacities for sentiment, perception and thought, coalesces with our neuronal micro-structure and determines the way we manage our time and our affects. It models our self-perception by means of text message responses, modifies our allocation of attention, even anticipates our autonomous choice through our motion and interest profiles. As externalised "intelligibilisation" of passive-active sensors and actants it co-determines communication and is becoming increasingly independent of human actors.

Trumping even Foucault's and Deleuze's assumptions on the "societies of control," our global interconnection devices turn out to be fine-tuned conditioning instruments that remember our digital operations and even anticipate them with an eye to their possible valorisation; every mouse click on the web and even unsent messages become material for a statistically exploitable data archive. In the interests of capitalisable bio- and social politics, the individual address is spatio-temporally fixed, via an electronic trace, and registered as a metadatum; if required, it can then be selected as a piece of information associated with a certain subset and targeted with materials from advertising firms. Given adequate focus, the recorded information can yield insight on social problems and even future developments the communicator himself knows nothing about. Thus human subjectivation becomes recognisable as one element within a pattern of utterance, as an "individual type" that is betrayed by its questions and whose future behaviour can be anticipated. In this sense, Mark Hansen describes what remains of "human agency as […] contained […] within a

multi-scalar cosmological context. […] Far from being an independent source of power that is […] somehow cut off from the rest of the world, human agency operates as a configuration […] within larger configurations" (Hansen 2011). Given the efficacy and spatio-temporal dynamism of such larger configurations, it appears increasingly puzzling that single persons persist in imagining themselves as "independent sources of power," as undivided and unmistakable individuals.

We are far from being familiar with the processes of bio- and socio(techno)logical appropriation into multi-scalar quantities that we find ourselves subject to by virtue of our passive-active participation, and we are not necessarily confident with or fond of them. The question that can no longer be elided is: How, in the face of all this, can we still think of ourselves as actors and co-creators of our participations?

Certainly, the question of degree of social involvement and self-choice of participation poses itself ever more urgently for those segments of the population that are excluded from social co-determination by virtue of being excluded from the labour process, through illness or a lack of financial possibilities for participation.

The question poses itself on a grander scale with regard to the politico-economic and technological inequalities that characterise the distribution of participatory opportunities on the global level. Here we *must* see how the organisation of becoming-world-society occurs via different forms of passivisation of the desire for participation, and through a denial of offers of participation, a reality that leads to increasingly harsh economic divisions and growing inequalities between populations.

In summary, the *anthropos* appears today as an entity that is possessed, administered and co-constituted by a variety of others, with a need for the passenger consciousness perspective to recognise itself as inserted into the apparatuses proper to various orders of magnitude. Agamben sketches the contemporary development of apparatuses under the heading of capitalism as one in which "there is not even a single instant in which the life of individuals is not modelled, contaminated, or controlled by some apparatus" (Agamben 2009, p. 15). Already fundamentally alienated from itself because its survival and prosperity depends on human others, and co-constituted, in its psychic reality, by the speech acts and unconscious habits of said others, the *anthropos* appears today to be self-alienated

to a still higher degree, due to its insight into multi-scalar intertwinings. On various epistemological levels, it is compelled to take note of a co-determination by non-human and technological others. This insight has recently prompted it to construct ever more comprehensive epistemological framings, so as to come to terms with humanity's special status and reassess the importance of non-human actants, but also to bio-technologically instrumentalise human material. Development of an extended "sense of self-alienation"[2]—one capable of confronting the facts of multiple participation and dividedness by others on a more fundamental level than that of established sensations and self-perceptions, one that can extract the epistemological and pragmatic consequences—presents itself as an unavoidable necessity. This sense of self-alienation would have the difficult task of establishing a balance between desired and non-desired multi-directional participations, thus compensating for the circumstance that the *anthropos* cannot deliberately confront the imperceptible co-determinants of its vital destiny or transfer their unsolicited contributions into any sort of symbolisation of conflict.

In light of these contrary aspects, participation reveals itself to be a highly ambivalent value: it may signify a desired connection, an aimed-for transfer of knowledge or an affirmed alliance and presence in other places, or harsh separation, involuntary bio- and socio(techno)logical appropriations and the undesired presence of others in "our" place. It offers an opportunity to multi-directionally expand the power of individual humans, dynamising the development of one's capacities, experimenting with the long-distance effects of the tiniest finger flicks and organising one's own unique becoming-world starting from a minimal point in space. Accordingly, Giorgio Agamben speaks of the "extreme proliferation in processes of subjectivation," of their "dissemination" (Agamben 2009, p. 15). This multiplication of subjectivation processes does not, however, entail increased individuation. On the contrary, it is precisely the continuously increasing practice of participation that undermines claims to indivisibility and uniqueness. It produces major areas of bio- and socio(techno)logical intersection with variously sized others. It reveals itself as being produced and divided by the existence both of non-humans and of technological devices and their algorithmic annexations. Practices shared with enormous masses of people, parallel and similarly

paced interconnections, pieces of information, moods and affects simultaneously consumed by innumerable and unknown others—involuntary bio- and socio-technological participations all make us appear powerful artists of subdivision who have long since forfeited all claims to uniqueness. Today, we assure ourselves of our own identities not so much in self-enclosed collectivities as through participation in varied, perhaps culturally different structures that are themselves shifting and only temporarily consistent; a new personal pronoun, one situated between the collective "We" and the individualised "I," would be needed to identify the person within whom these interrelations converge. It is precisely observable desires for increased participation and particularly tailored optimisations of participation that argue for relinquishing outdated self-descriptions and conceptually embracing the new subjectivations—via the term "dividuation."

The term suggests cuts und divisions, but is intended to describe qualitatively diverse, variously paced, but analogous processes of participation—processes that extend the single person into new orders of space and time by interlinking and synchronising the single person with others and complicating the single person's sense of coherence. They give individual existence a hitherto unconceived-of plasticity and mutability, but also a precarious psycho-physical stability. Overall, they suggest a self-conception that can be summarised thus: qualified undividable multiple dividedness.

Insight into the degree to which our existence is involved in variously sized dimensions of reality provides us with our starting point. Implicated in major and minor processes that are only partly transparent, we are participants in a becoming-world that is restrictedly examined here, on Planet Earth, in spite of the speculative assumption of pluriverses and imaginary excursions into outer space; this becoming-world already appears complex enough. The self-contained, independent and unambiguously localisable nature of not only individual human but also of natural, social and artistic circumstances is today being put into question. They are all situated in expanded configurations that contribute to bringing them about, traverse them, and prompt them to enter into transversal and possibly genus-foreign combinations, configurations whose independence is threatened—the entire field of epistemological

distinctions and scientific divisions has become fluid. It is not only human identities, but also ecological and social structures and sequences associated with production technologies and artistic processes that are being multiply subdivided, multi-directionally oriented, traversed, cohabited or co-constituted by others, making questionable their individuality and the possibility of clearly delimiting them. Thus (in Chaps. 4, 5 and 6), contemporary discourses of biology, sociology and aesthetic theory will be examined in terms of their epistemological redefinitions and the problematising of the relationship between undividedness and divisibility. Bruno Latour speaks of "tangled" objects, whose mutually "implicated" nature needs to be reconceptualised.[3] After all, the fact that what has hitherto been taxonomically distinct is now recognisable as being in reality inseparable entails insights into differentiated indistinguishability. Depending on a given mode of observation, the detachment of so-called individuals is possible only with a traditional and narrow epistemological framing and at the cost of violently isolating single persons. Dividuations and dividual relationships are differentiated according to the epistemic level chosen; they cannot be deduced from an overarching cognitive framework. Rather, and by virtue of their diversity, they call for specific forms of observation that accentuate the micro- and macro-structural heterogeneity of their interrelationship. However, their discovery and the possibility of differentiating them, in fact their very emergence, owes itself largely to today's degree of technological sophistication, which is why I will speak here of socio(techno)logical but also of artistic dividuations.

In light of this, my brief reconstruction of the conceptual history of the "individual" (Chap. 2) is intended as a reminder that the notion of unvarying and indivisible ultimate units, a notion that has been elaborated within philosophy for more than 2000 years, has developed meanings that by no means apply only to the individual human being. Instead, the concept of the individual was also used to problematise ontological, social and ecological "implications," as well as the possible distinctions within and between them. From the outset, the contradiction between the invariant single unit and the changes undergone by its aggregate states represented a struggle. Notions of the indivisible were forcibly brought into harmony with observed subdividedness. To sum it up, the conceptual

history of the individual indicates a desperate attempt to define as an invariant ultimate unit: something that comes alive only within dynamic and varied structures, something that is responsible both for instances of autogenesis and processes of becoming and for more far-reaching complex-formation. Today, technologically refined observation seems to confirm that the concept "individual" has never been adequate for living beings, social structures or elements of the universe. A basic, indivisible unit cannot be ascertained in the realm of physics, still less so in biology, sociology or art. In this sense, the substitution of the concept "dividuation" or "dividual" for "individual" also represents a liberation of the concept, an opening-up of its internal tranversality and ambiguity. This, in turn, calls for the quasi-ontological conception of another quasi-primary (a concept discussed in Chap. 2): a self-anticipating, self-participatory process constantly dividuating in different ways in which human subjectivations, ecological ensembles, world societies and practices of all kinds constitute themselves through division and participation.

The Ambivalence of Participation

In the part of the world liberalised on the Western model and characterised by extensive media connections, anything and everything—place of residence, workplace, stock-market equity, insurance portfolios, the way one spends one's holidays—is made to appear dependent on one's personal choices: convention makes us captains of our own life conduct. The promotional intrusiveness proper to the offers of participation that are made to us suggests infinite possibilities of participation and forces upon us a perpetual agony of choice. Certainly, it can be claimed, at least prima facie, that the Western world's inhabitants are freer than ever before to choose their own destiny, the types of education and the career patterns they pursue, and to organise their specific risk management and travels across the world. But these possibilities also appear ambiguous, as the very people who are particularly achievement-oriented are also the ones to invest themselves especially intensely and recognisably in knowledge archives, databanks, discursive practices and modalities of visualisation; by virtue of their increased participation in ever more communities of

knowledge and practices, they become ever more similar in their habits, becoming relationally identifiable and exposing their capabilities to greater availability and commodification. Since all knowledge assimilated and purchases chosen are attached to calculations about a person, their performance capacity and physical condition and the possible valorisation of this data, the effect is precisely not that of bestowing on the single person an unheard-of individuality, as Beck has repeatedly emphasised. Instead, individualisation becomes recognisable as a marketing strategy, and individuality as the target value of an intricate capitalist recording and valuation system. Putative individuals are generated as statistical variables and potential risks, as addressees of risk planning, as media starlets and one-minute celebrities.

Once more, this raises the question of whether or not design agencies pointing out profile-compatible lifestyle options and encouraging us to adjust our wishes to an up-to-date social level of entitlement and self-care can be considered an index of individualisation. Is individuation the right word when educational facilities push us to maximum achievement levels in the context of rigidly scheduled training programmes? Are offers of individuation evident in disciplinary measures accompanied by offers of flexibilisation, as when compulsory health insurance is made to appear more voluntary by allowing for choice of one's personal care requirements? Are we realising ourselves as individuals when engaging in online purchases, in order then to be provided with a mirror, with our profile of interests? And what subjectivations result from the fact that universities reduce their educational curriculum to modular teaching units while simultaneously instituting "clusters of excellence" by which to provide incentives for heightened performance within further education? Are employees of temp agencies to be seen as individual workers when they are employed somewhere else every day and made to toil in work positions far below their level of qualification and poorly paid and without pension provision, thus illustrating locally what the globalised division of labour involves on a larger scale?

Fooled by promises of individuation, we respond to appeals for participation by increasing our willingness to be profiled and by seeking to absorb still more information. N. Katherine Hayles already describes this as the origin of a new skill: surface-oriented hyper-attention.[4] In spite of

knowing that our mediatic utterances occur in concert with several billion communication participants, we do everything we can to demonstrate our special status and personal efficacy by attempting to set ourselves apart from our environment. In order to escape demographic minorisation, we stand out as much as possible through actions designed to be eye-catching, the kind that have become a striking feature of contemporary art. We push ourselves to an untiring readiness for conflict, optimise our visual presence and affective suppleness—thereby only adapting all the more to the permanent flexibilisation demanded of us. For cognitive and affective optimisation, we introduce technological sensors or chemical stimulants into our own selves. To maintain our faith in self-government and uniqueness, we study catalogues of options and subject ourselves to a permanent agony of choice, since non-participation is equivalent to exclusion from the species. It is precisely in order to do justice to our imagined duty to participate that we opt for a single existence and constitute ourselves as self-directed powerhouses of participation.

What presents itself as freedom may under certain circumstances reveal itself to be unfreedom. Lately, many indications make it clear that the desire for action can become a detrimental passion. The possibilities for "linking" and "liking" provided by social media can also be put to use to produce "shitstorms" (see Chap. 5) or as a platform for collective expressions of hate. Access to digital information entails an increase in the information available to commercial databases; it entails bio-political manageability and the disposal of user information for capitalist valorisation. The offer of self-directed individuation reveals itself as a social technology of micrological registration, a de-individuating calculus and statistical adjustment, something Agamben expresses through the concept of "desubjectification" (Agamben 2009, p. 20).

"Desubjectification," however, strikes me as a misleading concept, since "subject" already has connotations of subordination and "desubjectification" or desubjectivation could thus be read as "desubordination," which is exactly contrary to Agamben's intention. More importantly, however, it seems to me to be a logical contradiction to deny that constitutive and therefore inevitable processes of subjectification—always ambiguous, because they entail both empowerment and disempowerment—are a feature

of the genesis of human entities. For these reasons, I propose to use the concept "dividuation" to describe the de-individuating processes Agamben has in mind.

Bernard Stiegler in turn outlines processes of "de-individuation" (Stiegler 2009, p. 50), but locates their historical origin in industrialisation with its strict regulation of time. He describes the present, dramatically, as follows: today, we no longer simply adopt the temporal dynamic of technological objects, but "[adhere] so closely to them that their temporality eventually replaces the temporality proper to our consciousness. […] The result is an ecological catastrophe in the environment of the mind […]. As soon as the retentional phenomenon proper to consciousness is subordinated exclusively to the criteria of industry—this is precisely what is called hegemony—consciousness falls victim to destruction" (p. 79). While the notion of a time "proper" to consciousness and the corresponding notion of that time's "destruction" seem scarcely tenable to me, one can agree with Stiegler's observation that today's mediatised perception processes see human consciousness subordinating itself, often voluntarily, to ever more precise temporal rhythms—thereby perhaps generating new capabilities. The simultaneous empowerment and disempowerment experience is potentiated according to the sum total and the quality of its participations. It fosters readiness for action at the information front just as much as it undermines, in the long run, intellectual ingenuity and the willingness to commit.

In the long term, the exigency of balancing our mix of participations will make it clear that we can act as resilient synthesisers of our participations only up to a point, that there are limits to our ability to act as upgradeable conjugators of our capacities, and that we are always a few steps behind in moderating their degrees of intensity. In order to be able to participate maximally, we seek to optimise our sensitivity to trends; with an eye to enhanced self-government, we choose single existence. Forms of "social profiling" serve to improve our competitive profile, much like cosmetic surgery. In the long run, of course, we experience the compulsion to promote ourselves as a strain; the expectation of permanent availability becomes an imposition and we come to see ourselves as prisoners of our own desire for participation. Circumstances cause us to let the "enough" moment, the moment for a possible inter-

ruption of the flow of information, and for the necessary hiatus in our commitment, go by. Today called "burnout," this bears witness to simultaneous over-excitation and chronic fatigue. The mood proper to our state of tension—fraught and unstrung—confronts us: a permanent challenge, difficult to master.

The contrary tendencies—the will to participate on the one hand, and involuntary appropriation on the other—are seen most clearly in digital communication. This is the purest expression of hedonistic participation in the process of becoming-world-society with its technologically driven compression of space and time. In today's social media, Marshall McLuhan's 1964 prophecy has come true, and has exceeded McLuhan's own expectations: "We have extended our central nervous system itself in a global embrace […] to involve us in the whole of mankind and to incorporate the whole of mankind in us, we necessarily participate, in depth, in the consequences of our every action" (McLuhan 1964, pp. 3–4). Within digital communication, there occurs, according to McLuhan, the twofold process of our involution into humanity and humanity's involution into us. He outlines a neuronal continuum, "a field of inclusive awareness" (p. 104), participated in by all speakers and promising the illusion of a hitherto unachieved equality of mankind. An expert on Twitter draws a humanist conclusion from this:

> Yes, that's one of the great things about Twitter. It makes people more human. So last night, all these people were talking about their first jobs. You get to know them a little better—as human beings. And it allows people all over the world to participate, no matter whether they're in Berkeley or in South Sudan […]. How do we reach every person? No matter where on this planet you are, no matter what device you're using, no matter how old you are, how well educated, there are five billion mobile phones and six or seven billion people, and as long as you have one of these devices, you can receive information anywhere. I very much hope that we really achieve this, reaching every person on this planet and making Twitter something that can help them. (Gernert 2012)

Increased reception possibilities for the self-expressions of dispersed interlocutors may have the overall effect of enhancing our insight into the human condition and improving our willingness to behave in a tolerant

fashion. But the hope of "becoming more human" in the sense of achieving the comprehensive self-determination of the species appears an illusion, especially in light of the goal of total recording pursued by the other parties. The palm-sized participation device can be understood as an efficient machine of desire by which to give expression to one's momentary impulses, or through which to supply oneself with information from one's particular standpoint in the world and to contact others in other regions of the globe. But instant self-care and socio-technological dietetics also imply data registration and availability for economic valorisation. The spatio-temporal dynamisation of human existence and its desire for meaningful intervention in world events go hand in hand with an undesirable assessment of its expressions of desire and a calculation of its risk potential. Specialists on big data are already proclaiming the Bartleby-like "opt-out," or interruption of communication, as the only conceivable way out.

Man's fundamental condition of being divided and subjectivated by linguistic and eidetic symbolisations, described by psycho-analysis, needs today to be analysed further on the basis of Freud, Simondon and Deleuze, but this analysis also needs to be supplemented by insights linked to contemporary technology, and performed under the assumption of countless additional, phylo- and ontogenetically determined divisions. After all, these are the precondition for the multi-directional dividuations we observe in the single person. Only when one assumes an unconscious, pre-individual and impersonal dividedness of psycho-physical genesis can one understand why the technological range of options offered to single persons is used by them to engage in a succession of further divisions—in the attempt to intensify and allay their original differentiality. The very thing that the refined instruments of observation are forcing upon us in the form of an evident reality, namely that the *anthropos* is inhabited, divided and communicated by unknown others of various qualities, is reiterated and converted into an active "counter-actualization" (Deleuze 1990, p. 150). Discovering itself to have been co-created by microscopic or even purely imaginary others, the *anthropos* seeks to minimise its "heterodetermination" by means of freely chosen membership of virtual communities, multiple participation in various platforms and through further subdivision of various skills. It compensates for the passivation imposed by unconscious pre- and co-articulations

by multi-tasking in various media; it participates and decentres itself intensely. This increasingly schizoid form of existence cannot but alter its capacities for reception and processing, engendering new relationships between them and new qualifications.

Deleuze's call to increase human capabilities to their limit point, where, he claims, they will be able to generate new capabilities and unknown affects, percepts and concepts (Deleuze 1994), is finding an unwitting ally in digital communication. When we, eager for new discoveries, adapt to changing media practices, introducing the temporal dynamic of various technologies into our bodies and connecting mobile phones or MP3 players to our organs of perception independently of the given spatio-temporal co-ordinates, the tendency is for us to merge with the operators of desire: their call to sensation is no longer received as coming from outside us. In our increasing concrescence with our devices, we receive unfiltered texts and images from various sources; we are exposed to potentially incompatible pieces of information and confronted with spectacular reports on intractable conflicts, requiring new levels of resilience to process these. We allow ourselves to be lured by offers of co-operation that prompt us to engage in capability acquisitions and temporal investments whose duration and intensity is described only by the key word "addiction." We willingly delegate our sense of orientation, our sense of community and diversion-seeking to the technological apparatus, to find ourselves incessantly addressed and encouraged to develop a willingness for permanent reception and responsiveness.

As various authors have pointed out, our attention is thereby no longer honed as a mode of immersing oneself in particular cultural practices, but as a mode of simultaneous millisecond-swift perception. Since holding attention has become a key resource, all the media try to address this capability through more or less sophisticated eye-catching. N. Katherine Hayles warns us of this involuntary participation, emphasising that our adopted and now habitual mode of interaction with technology drops below our threshold of perception when it becomes automatic, and is then increasingly co-co-ordinated by non-human actants: "With technologies such as bar codes, SIM cards in mobile phones, and radio frequency identification tags (RFID) tags, human and nonhuman actants become subject to hypercoordination and microcoordination" (Hayles 2012 p. 96). The fact that our economy of space and time is divided into

ever smaller intervals, interwoven with the positions and mobile addresses of other persons and subjected to compartmentalised capitalisation, leads to modifications in our "*mechanisms of attention*," since these change "in response to environmental conditions" (ibid., p. 211, emphasis in original). The fine-tuning of sensory reception and temporally accurate accessing of the sense organ in "privatisation of cultural consumption" can, however, also be understood as freedom gained:

> The privatisation of cultural consumption […] can be considered a form of liberation based on the commodity. Listening to a recording whenever you want, wherever you want and, thanks to the portability of the lecture devices and the availability of the type of music which you want to hear, exactly here, in this moment and in the chosen time frame […] is its archetype.[5] (Boltanski and Chiapello 1999, p. 528)

As this widespread practice makes clear, we now link increased freedom to an increased compartmentalisation of our capacities, to their ubiquitous accessibility at precisely allocated times. We are perfecting ourselves as passion-recipient actors who shape our participation with to-the-minute precision, constructing for ourselves an ever more dividual identity that is consciously and unconsciously linked with and co-constituted by so much multiplicity that defining the contours of "what is our own" becomes ever more difficult.

It is in this sense that contemporary media theorists are increasingly drawing attention to the ways in which our capacity for sensation is directed, stimulated and co-determined by technologies that have themselves become sensory. Mark Hansen diagnoses a:

> tremendous expansion of the capacity for sensation […]. We are seeing our longstanding and hitherto virtually unquestioned privilege of being the world's most complex agent of sensation put into question by the massively reproduced technical capacity of sensation that is currently proliferating, and which was introduced by our smart devices and technologies. (Hansen 2011, p. 372)

As we grow accustomed to the permanence of new offers of sensation, we develop a need to be permanently affected, and for our affects to be intensified and trumped by new affects, a need that these media, in turn,

supply by means of sensational reporting and ever new reports of catastrophes. The social practices of linking and liking result in high-density communication occasioning rapid mood shifts from euphoria to despondency, and "affect checks" are now duly being offered online so that our mood can be assessed by means of parameters and fine-tuned.

Geert Lovink criticises such short-sighted forms of self-care, as well as the more general curtailing of human self-empowerment by the current set-up of the World Wide Web 2.0: as a distributive and allocative modality, it does *not* extend the single person's capacity for communication, he argues; instead, it limits it through algorithmic pre-structuring. Lovink faults it for patronising users, preventing qualitatively different forms of encounters and, most importantly, anticipating participation by reflecting the user's personal features back to him or her. He sees principally new encounters between persons reduced to a "flat world where only 'friends' exist" (Lovink 2012, p. 55); he outlines an impoverished variant of contemporary dividuation. His explanation for the fact that notwithstanding this, participation in Facebook communication is on the rise: "The credo of social media (insofar as there is one) consists in developing defensive systems that simulate the sense of community associated with a lost tribal society: computer-generated unrestraint" (p. 54). According to Lovink, one reason this—archaic—sociality of well-being is sought as an antidote to the vastness of world society is that the formation of real communities is increasingly being impeded by the privatisation of public space and the depletion of public resources. Lovink criticises social media as conservative and backward-looking, arguing that they in fact fail to accustom us to the diversity of today's becoming-world and do not invent any new socialities. Nevertheless, what he describes as "mere connectivity" has significant consequences for the process of subjectivation: second-by-second-speed participation in the communicative community, the transmission of intimate experiences to that community and the exposure of oneself by images and texts lead to decisive changes in one's relationship to oneself, which now takes shape depending on feedback from unknown locations, inter-growing time-intensively with our life journey's imagined/virtual/real commentators. Manuel Castells emphasises that accessing digital communication offers does not necessarily amount to an enhanced experience of reality, as it frequently involves a loss of temporal

orientation and occurs within a "timeless time," due to a "desequencing of social action, either by the compression of time or by the random ordering of the moments of the sequence" (p. 171). Castells calls the subjectivation resulting from this detachment of communication from the organic experience of time, and from a lack of real encounter challenges, a "pre-packaged individuality" (Castells 2007). Alexander Galloway (Galloway 2004) stresses the "bi-level logic" (p. xv) and political ambiguity of the network structure: while it allows for a horizontal dispersal of information, that dispersal is also controlled vertically. Galloway also rejects the metaphors of freedom of participation, inclusion and individual or collective agency within networks: "The notion of networks as participatory has led to much confusion regarding the status of individual and collective agency in such networks. This is the more prescient as the Web becomes a primary nexus of consumer culture, encompassing the production of commodalities […] and changing habits of consumption" (p. xvi). Instead of participation, it is mainly new consumption attitudes that are rehearsed; the "bio-informatic encapsulation of individual and collective bodies" (p. xx) promotes only economic transactions between bodies. Following Negri and Hardt, he speaks critically of "individualisation" through economised digital control, a control that directly targets the single person and enquires primarily into that person's willingness to consume, thereby helping to shape his or her relationship to the world. Like Lovink, Galloway foregrounds the negative aspect of the dividuation process.

By contrast, the philosopher Paolo Virno sees digital communication as providing a chance to relink the capabilities of producing and acting, which were increasingly torn apart under the Fordist system; according to Virno, there is an inherent tendency, within digital communication, to dismantle social hierarchies. Since interventions on the Web can signify both working/creating (*poiesis*) and action (*praxis*), they provide a virtual space for conflicts that concern everyone. They can touch off real political actions and allow for counter-political action in the form of virtual protest notes while producing virtual designs or Net art. In Virno's view, these practico-poietic articulations promote the formation of other, perhaps transcultural network and minoritarian socialities; he outlines the possibility of dividuation bringing a leap in democratisation. Both he and

Etienne Balibar emphasise the formation of "transindividual"[6] communicative communities of the kind Gilbert Simondon describes as arising between the psyches of those participating in the same basic and pre-individual features of a given society. The affective communities made possible by digital technologies (communities that are often transnational or even transcultural) are admittedly much more short-lived than the traditional communities thematised by Simondon, and they are transindividually divided in themselves.

This shows that human subjectivation has today become a variable of affirmed interconnections and involuntary allocations to communities of participation, with many, often unknown, others being recognised as co-determining the development of wishes and interests. Depending on our psychic condition, mental fitness, nervous readiness for confrontation and action, we expand or diminish the framing and temporalisation of our participations, seeking to moderate the communication device's constant calls on us. As Agamben emphasises, we shouldn't forget that our capabilities are always conditioned by their flipside, our impotentiality (Agamben 2011, p. 43). Agamben sees the "status" of human action as determined not just by ability, but also by "the potentiality not to." Taking this thought further, one might ask whether today's technological potentials and practices, which we as single persons are unable to alter, should not prompt us to learn how to take into account our inabilities and limitations, in order to more frequently refrain or readjust circumstances.

We should also learn to utilise our insight into our dividuated nature for enhanced forms of transnational and transcultural association. Our Western connectedness should not make us forget that, seen from the perspective of world society, certain populations and population segments are still exposed to considerable inequalities of participation, and to politically, economically and technologically determined restrictions on participation. We know that Agamben highlights past and present strategies for inclusive exclusion of individuals, groups or ethnic groups from national societies (Agamben 1998, p. 48). Today, these strategies also affect those parts of the population who find themselves included in areas of economic, political and communicative non-participation by virtue of being excluded from the world of professional work.

On the other hand, this unequal awarding of shares is today increasingly giving rise to politico-mediatic forums of articulation and solidarity campaigns in which indeterminate multiplicities constitute "condividuations"—a term whose affinity with Gerald Raunig's (Raunig 2011) concepts of "condivision" and "condividuality" will be explained later. Such condividual speaker groups criticise the disparities in participation and experiment with new forms of mobile, real or virtual becoming-mob, with mutual affection and reinforcement of recognition, and with new, mediatic forms of expressive insistence and remembrance, including remembrance of the victims of such condividual manifestations of protest. Admittedly, they provide no protection against the threats to individual or group identities posed by compulsory participation or exclusion from it. Developing protective measures could be part of an affirmed economy of dividuation. Consciously developing such an economy is urgently necessary, if only to ward off the religious movements that are taking its place; employed as protective measures, as a defence against today's challenges to the single person and as attempts at affective compensation for participatory disadvantages, such movements harshly notch and segment the field of social communication.

Individual and Individualisation?

The present life-world and its epistemological change is the subject of highly divergent interpretations by contemporary sociologists and philosophers: while some take note of global migration flows and technological appropriations and admit to the existence of de-individuating tendencies or shift the epistemological focus away from the individual and onto broader social factors, others present the opportunity for market-based self-government emerging today, in part thanks to devices and options tailored to the single person, as a mode of enhanced individualisation. It is precisely because single persons are no longer integrated into a social affective group and the intercorporality of early modern societies, and instead need to organise their affective coherence by themselves, that these authors retain the concept of the individual. Sociologist Ulrich Beck uses the term "individuality" to denote the "institution" to which decisions on one's

professional training, career path and risk management are delegated in the course of neo-liberalism's privatisation of tasks formerly associated with the welfare state (Beck 2000). Ethnologists and scholars of religion also speak of individualisation when discussing contemporary religious practices, since the self-understanding of the various "global prayers" has broken with traditional church affiliations by virtue of being composed of particular combinations of religious doctrines with life-world practices (MetroZones 2012). In itself, the possibility of assembling personal websites and equipping oneself with an opinion profile and a personal profile is understood by some media theorists as an increase in individuality (Miller 2011). The practice of social networking is also equated with an increase in individualisation, since exiting the traditional social community allows for specialisations in one's choice of partner and tailor-made interpersonal relations. The fact that single persons can determine their self through assembly of status objects, wellness attributes, social contacts and philosophemes as they see fit, appears as an accentuation of their individual profile.

Ulrich Beck sees the addressing of the individual as the bearer of human rights as one of the main achievements of second modernity (Beck 2000) but this putative advance is in fact questioned by some non-Western theorists. The association of the rights and the dignity of the single person with a Western conception of individuality is criticised as a new form of intellectual colonisation by South Africa-based political scientist Achille Mbembe. Along with Asian theorists, he points out that the dignity of the single person is also dependent, in other cultures, on consideration of their family and clan: "The idea of democracy and the associated theme of human rights were produced by the West; they are based on a valorisation of the concept of the individual (as opposed to that of the person) that was unknown to precolonial societies and was introduced into Africa in the course of colonisation" (Bayart et al. 1992, p. 62).[7] Certain Western voices also object to the assumption of an increase in individualisation on the grounds that the spread of single existence cannot be read as a gain in individuality, if only because it involves the loss of life-world ties to familial, estates-based or work-based communities. According to these authors, the absent extension of action through the actions of others instead leads to self-care transitioning into

growing solitariness (Clam 2012, p. 443). It is in this sense that Deleuze and Guattari decipher the single person under capitalism as a discursive instance divided into social and private persons, one deprived of its link to the collective unconscious and reduced to the "intimate colonial formation" of private images (Deleuze and Guattari 1983, p. 179).

Michel Foucault assigns the politico-epistemic strategies of human individualisation to the labour techniques associated with the disciplinary society of the late seventeenth century; this included:

> all devices that were used to ensure the spatial distribution of individual bodies […] and the organization, around those individuals, of a whole field of visibility. […] They were also techniques for rationalizing and strictly economizing on a power that had to be used in the least costly way possible, thanks to a whole system of surveillance, hierarchies, inspections, bookkeeping, and reports. (p. 242)

In my view, this individual-based disciplinary model has for some time been on the decline, since the new control society has extended its field of surveillance to the global scale and regulates single persons only indirectly, via the registration of the population and the human species epistemically and through control technologies. The shift of attention from single person to population and human species involves an administration and valorisation of life and death through statistic registration and prediction, through race-based distinctions, risk-assessment and bio-political measures in general: these "no longer train individuals by working at the level of the body itself" and no longer "[modify] a given individual insofar as he is an individual," operating instead "on the level of generality" (p. 246). Foucault's clear-sighted anticipation of the single person's species-based, statistical registration does not necessarily contradict the "individualisation" identified by other authors. After all, it is precisely for the purposes of bio-political planning and administration of the population that the single person is registered, albeit less to subject their body to a disciplinary drill than to gauge and communicate (in information form) their potential for wealth and illness, in order to assess their politically conformist or deviant behaviour and utilise it for political campaigns or insurance measures. It is precisely via the activities

of single persons that national and global processes of sociation intersect with commercial interests. However, the passivity of single persons is also addressed and regulated today via the Internet of Things, which takes over their self-care and casually teaches them how to optimise their daily routine and smoothly calibrate their needs. Thus, the human species—the world population—is today divided not only along ethnic and religious lines, but also in terms of individual affective and cognitive skills and economic criteria of valorisation; on the one hand, it is manoeuvred across the globe as a cheap army of labour, and on the other it is compelled to informational participation at its specific location, or excluded from possibilities of participation and discriminated against along the "global digital divide."

The arguments presented here against continued use of a positively understood concept of the individual, and of individuality, can be supplemented with numerous others, as will be demonstrated in the next chapter on the history of philosophy. What has already become clear is that the Latin term "*individuum*," a translation of the Greek "*atomon*," was intended to serve as the unalterable basic unit of an ancient cosmological model, but has proven untenable in light of the insights associated with contemporary epistemes. The concept elides an insight obtained in the field of physics, but also in the fields of biology, sociology and aesthetic theory: namely, that a final, indivisible unit cannot be identified in any area of reality. It is mainly the new close-viewing, ever more high-magnification observation instruments, but also the global perspective that render problematic the assumption that single living creatures, social structures or an artistic positing can be clearly delimited, indicating instead that anthrogenesis occurs within the context of a co-evolutionary relationship with other processes that play out on different orders of magnitude.

It is in this sense that the notion of individuals evokes a perspectivation of the world that has become epistemologically inadequate. In the manner of modern Western painting, it provides real and imaginary representations of static quantities with recognisable outlines, distinguishes clearly between foreground and background and thinks of the world as organised in terms of a central perspective. Today, the timeless, closely focused window gaze would have to be replaced with mobile forms of perception

that reflect their own particular context, the relativity of their focus and their manner of temporalisation: moving-image media-style audiovisual world accesses in which single humans operate as participants in non-human processes and ensembles of things whose aesthetic qualities are constantly changing, processes which configure themselves newly depending on their perspectivation, framing and duration. Like film shots, single humans de-individuate themselves in accordance with their affirmation and symbolic intensification of relationships of intertwinedness, even when they reconfigure and modify those relations to suit their capabilities. Like cinematic works, they constitute themselves by referring back to the past and anticipating what is yet to come; through repetition and alteration, they give rise to particular, divided and additionally divisible coherences and articulations of affect.

The more the individual is praised as a positively understood formula for the single persons who are today presenting themselves in performance records and promises of value creation and cosmopolitanism, the more it is declared to be the species-perfecting and hence putatively ideal mode of anthropomorphisation, the more its conceptual framing is seen to be dependent on epistemological, political, economic-ecological and aesthetic-ethical preferences. That the freedom to construct one's own identity is threatened, from the outset, by the possibility of it turning into coercion and unfreedom, has been emphasised from an early stage by philosophy. As can be seen from the opening quotation, Adorno drew attention to the individualisation that neo-liberal interests propagate and thereby undermine. Jürgen Habermas (1992) in turn emphasises the ambiguity of the suggested gain in freedom by describing the ethically demanding call to self-choice as being degraded into a capitalist fad, whereby we are asked to choose from among a standardised range of life-style models and programmes of distinction. Habermas exposes the call to individualisation as a marketing strategy associated with a consumption-oriented economic system that seeks to proffer its products as extensively as possible to self-beautifying and self-perfecting single persons. Against this term, which has negative connotations in his work, Habermas sets that of individuation, used by him to denote substantive self-choice and considered decision making, especially in times of conflicting identity proposals. Thus, Habermas seeks to salvage individuation as a positive

term, suggesting that single persons can succeed, through self-reflexive speech and action, in modelling themselves as irreplaceable and distinctive persons.

I would object that in spite of this semantic distinction, Habermas's description of reality remains bound up with a central perspective and a focus on artificially isolated single persons; much as in today's micro-biological experiments, these persons need to be detached from their environment before they become recognisable as such and can function as sources of thought and action. In the microbiological realm, observation of the isolated single phenomenon involves it being absorbed and made to disappear. Should this not be understood as the general fate of the epistemologically isolated single person?

Against the backdrop of this self-destructive scenario, it can be argued that thinking of the world as a stage for individual performance and the acrobatics of distinction involves too many elisions in too many areas and implies too much violence, both epistemological and real. It means overlooking the historicity of human subjectivation, as well as the fact that the concept of the individual only began to be applied to the concrete single person in the mid-eighteenth century, as Niklas Luhmann confirms (Luhmann 2013, p. 264). Luhmann belatedly renders explicit what has been observable in the process of human differentiation and distinction since the Italian Renaissance:

> The general European consensus is that the era of the Italian Renaissance created what we call individuality. By this is meant a state of inner and external liberation of the individual from the communal forms of the Middle Ages, forms which had constricted the patterns of his life, his activities, and his fundamental impulses through homogenizing groups. These had, as it were, allowed the boundaries of the individual to become blurred, suppressing the development of personal freedom, of intrinsic uniqueness, and of the sense of responsibility for one's self. (Simmel 1992, p. 217)

In reiterating this "general European consensus," Georg Simmel articulates an early twentieth-century conviction largely stemming from the interpretation of the Renaissance formulated by Jacob Buckhardt around 1859 (Burckhardt 1892). Burckhardt's portrait of the fourteenth and

fifteenth-century Renaissance man was by no means positive; on the contrary, Burckhardt's description of the northern Italian princes, with their abounding proclivity for violence and passion for grandeur, and their struggle for honour and attention even at the expense of their own family members, provides a highly problematic image of individuality. Burckhardt's historical dramatisation makes clear how great a propensity for violence and deception was involved in the emergence of the modern single consciousness. According to Burckhardt, the "development of personality" and the "recognition of it in oneself and in others" (p. 308) implies the "developed sense of individual characteristics, in other words the capacity to invent a given mask, and to act the part with dramatic propriety" (p. 408). The self-assertion of this inauthentic "excessive individualism" casts off existing domination relationships, according to Burckhardt, only to trump them by its "victorious egoism" (p. 455), becoming the judge of its own actions: "In face of all objective facts, of laws and restraints of whatever kind, he retains the feeling of his own sovereignty" (ibid.). In spite of describing the disruptive features of this process of setting oneself apart from others, Burckhardt seeks to describe the intent to individualise oneself as a "historical necessity," in a manner reminiscent of Hegel: "It did not come upon [the Italian] alone, but also, and chiefly by means of Italian culture, upon the other nations of Europe, and has constituted since then the higher atmosphere which they breathe" (ibid.).

Simmel contrasts this Renaissance individualism with that of the eighteenth century, which emphasises, in spite of everything, the single person's equality as grounded in natural law, reason or the concept of humanity; he quotes Fichte: "A rational being must necessarily be an individual, but *not* this or that particular one" (Simmel 1992, p. 223). Simmel sees in the shift between generality and particularity, equality and incomparability the defining characteristic of the modern individual, although he also holds that the notion of principal equality finds expression in English liberalism, whereas that of qualitative uniqueness is more proper to the "Germanic mind" (p. 225). However, since in the nineteenth century individualism based on a compulsory "distinctness" of essence and achievement ultimately led to the "metaphysic of labour division," Simmel concludes by hoping that "the idea of free personality as

such and the idea of unique personality as such are not the last words of individualism" (p. 226).

Friedrich Kittler (1980) laments the modern linking of the concept of the individual to the single person in general, arguing that it is harmful insofar as it has promoted a disembodied, self-enclosed self-understanding of modern man. In Kittler's view, this image of the self as dissociated from the cosmos and from society has informed the bourgeois educational canon and gradually universalised itself, leading to the constitutive and collectivising processes of rhythmisation, vocalisation and corporeal inscription being forgotten whilst lending to the author figure an inappropriate aura of personal distinction and "self-speakerness" (p. 148):

> The European culture of modernity is the only one which wants and has what Aristotle once called impossible: knowledge of the individual. One does not need to derive the individual philosophically from the concept, nor denounce it, in Marxist fashion, as an ideological semblance; the individual is the real correlate of the new techniques of power that save its data and produce its discourses. (p. 155)

Agreeing with Foucault, Kittler sees these new techniques of power unfolding their effects in modern pedagogies, knowledge apparatuses and bio-technologies: they elevate the individual to the status of a social norm, in order to propagate the educative goal of freedom by means of that norm. The author as "victim" of the power of individualisation is then expected to function as an "agent of individualisation" (p. 160) in his own right, to potentiate individualisation and divulge the standardised constitution of subjects in the form of writing and discourse.

This small selection of interpretations and assessments sufficiently makes clear that the culture-historical search for the "*principium individuationis*" has given rise to a tradition that is far from being univocal, uncontroversial or even concerned with the same object. Said interpretations and assessments provide a sense of how the concept of the individual has also been employed to conceptualise other, non-anthropological notions: even in our modern physical models of substance, the individual is established as the processuality that is supposed to guarantee the development of the universe from the infinitely small or the self-differentiation

of matter, through generation-provoking immanence and multiplication relationships between the single and the whole. At the peak of its semantic supercharging, in Hegel's *Phenomenology* and *Aesthetics*, the term is used to systematically encapsulate not only the dialectical movement of human consciousness towards absolute knowledge and science but all culture-historical manifestations such as art: all are presented as historically successive partial individuals composing a mental super-individual and its universal-historical process of perfection. Marx's political and epistemological critique of this "general" individual leads him to relate it to contextually determined economic and socio-political ensembles; ultimately, Marx outlines a collective actor characterised precisely by *non*-individuality. During the same period, however, English liberal philosophy recalls John Locke, codifying the concept of the individual as that of the single human actor, an understanding of the concept that is still widespread today. As a "possessive individuality" or proprietor of its own capacities and manifold strategies of appropriation, it is given the status of a general norm that turns the imperative of individualisation into a quasi-destiny of contemporary man, promoted by neo-liberal interests and sociologically buttressed. This anthropological notion of individuality, however, has been vehemently criticised in recent times, and has been replaced by social structures concepts not based on individuals: mobs, multitudes and political ensembles.

Jürgen Habermas draws attention to the peculiar social expectation associated with the individual: the individual is supposed to both represent the species and rise above it. The expectation both of a realisation of one's species affiliation and of a qualitative enhancement is seen by him as posing a challenge that can easily turn into its own opposite, a point Habermas underscores by referencing Talcott Parson's term "institutionalised individualism":

> even liberation from the stereotyping dictates of institutionalized behavioural expectations is described as a new normative expectation—as an institution. […] [T]he very process through which the individual is emancipated from the power of the universal is itself directed toward the subsumption of the individual under the universal. (Habermas 1992, p. 149)

It is precisely by virtue of their efforts to become something more than average that single persons become more like one another, confirming social phantasms and trends and heightening the expectations associated with individualisation:

> The individual is supposed to be distinguished as what is essential, yet it can only be defined as the accidental, namely, as that which deviates from the exemplary embodiment of a generic universal. […] In the course of time, these deviations from the normative givens of a relatively homogeneous group give rise to the normative plurality of a group that is differentiated within itself. However, these new norms do not shed the character of being pre-given general determinations simply by virtue of their pluralisation; the individual is now subordinated to them in just the same way as he was previously subordinated to the behaviour patterns of a less differentiated form of life. (p. 150)

Habermas anticipates the dilemma of single persons' compulsory participation in mediatised forms of social negotiation, a compulsory participation that is associated with a promise of freedom but also involves the single person being affectively and cognitively co-opted by such claims. Habermas attempts to respond to this dilemma by means of the above-mentioned distinction between a hetero-determined "individualisation" and a substantive notion of "individuation" as autonomous choice of one's life conduct.

What is in any event remarkable is that in spite of being presented as a putative *anthropologicum*, individualism has a comparatively young history.[8] It was only in the nineteenth century that, due to economic and political considerations, the concept of the individual began to be restrictively applied to human beings only, this narrow meaning of the concept being the one that is still current today. And it is striking that in spite of its normative reduction, the philosophical concept retains, to this day, a semantic oscillation and immanent self-problematisations that undermine its narrow interpretation, generate (sometime inadvertent) criticism and open up the possibility of new, even contrary conceptions. In the 1920s, Alfred North Whitehead's challenging and speculative "cell-theory"[9] (Whitehead 1929) once again conceptualises single beings as

final ontological units: "Each actual entity is a cell with atomic unity" (p. 321). In analysis, however, it appears as an entirely different process: "The actual entity is divisible; but is in fact undivided." Whitehead ascribes its divisibility to its "self-revelation" and transcendence. According to Whitehead, the single entity displays the feature of being "not merely one" but "also definitely complex," such that it "include[s] definite diverse elements in definite ways" (Whitehead 1929, p. 321). Like Spinoza, Freud, Simondon and Deleuze, Whitehead thus conceptualises the single being as a complex structure that requires, for each of its components, a "real diversity of status" (p. 322). Developing this insight into the psychophysical complexity of single beings, Simondon and Deleuze formulate a critique of the "individual" concept that is based on their newly process-oriented concept of human "individuation" (discussed in Chap. 2). As used by Gilbert Simondon, the concept of individuation describes forms of awkward joining-together of processes of physical and vital constitution to produce human "individuation," and also the ways in which such "individuation" links with human others to form a "transindividual" psyche. The concept of "dividual" is picked up on by Deleuze and explicated with reference to its multifarious genesis, anticipating what will be outlined here under the heading 'dividuation'.

In Bruno Latour's epistemological remarks, the single phenomenon is also increasingly defined as a problematic, unravelling, tentacle-assailed value that is interwoven with processes occurring in its environment and can only be conceptualised if one begins with that environment. From Latour's perspective, all quantities, those that are "natural" as much as those that are social or aesthetic, are explicable only in terms of their interrelations, and they become more explicable the more values are taken into consideration. In line with this approach, I wish therefore to document processes of (de–)individuation on various levels.

From an intercultural perspective as well—and given the world-societal and migration-determined dividuations of social structures, ethnic identities and cultures, of practices, modes of perception and standards of values—one must, with Stuart Hall, strive for a revised definition of human subjectivation today:

> We can no longer conceive of "the individual" in terms of a whole, centred, stable and completed Ego or autonomous, rational "self". The "self" is conceptualised as more fragmented and incomplete, composed of multiple "selves" or identities in relation to the different social worlds we inhabit, something with a history, "produced", in process. The "subject" is differently placed or *positioned* by different discourses and practices. (Hall 1990, p. 120)

Hall speaks, appropriately, of single persons being composed of various "selves," and of fragmented identities that participate in different processes of becoming-world and result from different cultural affiliations. He stresses the multiplication of identities determined by cultural intermingling; identities are today "not fixed [any longer], but poised, in transition, between different positions, which draw on different cultural traditions at the same time; and which are the product of those complicated crossovers and cultural mixes which are increasingly common in a globalized world" (Hall 1992). In Hall's work, we are presented with the notion of single persons as nodal points and potentials for synthesising divergent cultural self-understandings; single persons are informed by these self-understandings and distribute their resources among them to varying degrees, entering, by virtue of them, into conflicting inter- and trans(in)dividual connections. This fragmentation and multiplication of identity presents a pattern of contemporary human dividuation that is becoming ever more common: the passion recipient/passion actor situated at the intersection of culturally divergent offers of participation, forced to compare them and establish a meta-stable equilibrium between them within himself.

Judith Butler emphasises, within the framework of her social ontology, that social and ecological processes can no longer be coherently distinguished from one another today. Nevertheless, and in spite of wishing to "avoid anthropocentric and liberal individualist presumptions" (Butler 2009, p. 20), she limits her redefinition of contemporary subjectivations to an ontology of the "interdependency of persons" (p. 19). In her view, this kind of ontology involves awareness of, and reflection upon, our dependence on others and "sustained and sustainable environments" (p. 23). Butler justifiably criticises liberal norms for resting on an ontology

of independent identities that can make no contribution to the analytic vocabulary required, in contemporary life, "for thinking about global interdependency of the interlocking networks of power and position in contemporary life" (p. 31). Thus, she thinks of politics not in terms of the distribution of identities but in terms of stressing the precariousness of living entities and the "differential distribution" of said precariousness (ibid.); it is her hope that these beings will form coalitions and alliances against state violence and its bio-political profit interests.

Going further than Butler, I not only consider the *anthropos* to be situated within relationships of interdependence involving persons and person-based power constellations, but also see it as immersed in diverse partly non-human and abstract processes that co-constitute its subjectivation and must therefore also be taken into consideration. We comprise bio-socio(techno)logical structures within larger ecosystems that are part of a becoming-world; the dividual counter-realisation of these structures must today be described in terms of a participatory give-and-take, of their intensification and self-reflexive moderation. From this perspective, the environment appears as something more than simply a relational quantity that needs to be rendered "sustainable" because it provides our world with its environs (for instance, so that it may in turn render man sustainable, in the manner envisioned by Butler). Instead, we need to start from the premise that, to realise itself, becoming-world depends on ecosystems that cannot be distinguished from person-related interdependences and can never be permanently secured.

We have long since ceased to be able to think of ourselves as points of convergence around which a world curves, in the manner imagined by Bergson; nor can we attribute to ourselves the uniqueness that continues to be expected of creative minds. Mark Hansen proposes replacing Bergson's model of convergence with Whitehead's model of cognition, which insists that every particular realisation involves the totality of the universe. Here, I will attempt, more modestly, to outline variously scaled processes of becoming-world in terms of "inter": interweaving and intergrowth, interaction and interpassion, structures and joining, in order to provide, on this basis, a sketch of bio- and socio(techno)logical and artistic dividuations.

From Individuation to Dividuation

In order to denote the ambivalent quasi-destiny of our human contemporaries—their sometimes unconscious, sometimes affirmed participation in bio- and socio(techno)logical processes, their involuntary co-opting by these processes, and their participations kept to deliberately measured doses—but also the epistemological blurring of distinctions between species that is evident in the eco-biological realm, the establishment of heterogeneous and continuously changing knowledge and world societies as well as the procedures of repetition and difference-formation particular to the area of aesthetic practices, I employ a concept that represents a shift of emphasis and a re-evaluation relative to the conceptual field of 'the individual': the concept of dividuation. It entails, first and foremost, an extension and accentuation of the epistemological approach of Gilbert Simondon and a development of the Deleuzian concept of the dividual, applied by him, in a positive sense, to art, and, in a negative sense, to human subjectivations after the shift from the analogue to the numerical.

Gilbert Simondon employed the term "individuation" to outline an elastic and sometimes tense, interminable structure consisting of the various (partial) individuations of single persons—a structure that would be better described, in my view, as "dividuation." The idea of the term "dividuation" is to reflect the multi-directional cross-connections and subdivision of single humans based on qualitatively diverse, self-chosen and imposed participations, and their complex joining with a relatively stable, self-affecting and self-reflecting coherence. My thoughts respond to Simondon's remarks and are intended as a radicalisation of his conception. In particular, his assumption—probably influenced by Freud's understanding of the unconscious—that anthropogenesis is informed by orders of events called "pre-individual" (orders of events that co-constitute single persons, ensure their internal mobility and need to be counter-realised by psychic individuation) that provides the basis for what I call the "quasi-ontology" of dividuation. As explained in greater detail in Chap. 3, "quasi-ontology" refers to an attempt at philosophical explanation that understands the category of Becoming rather than Being, and with it primary temporary sequences and (initially) pre-

anthropomorphic processes, as auto-constitutive and constitutive of others. The insight that pre-individual and impersonal micro-processes are constitutive of the subject (also brought home to us today by instruments of observation and registration) is anticipated by Simondon's and Freud's assumption that single persons have unconscious shared phylo- and ontogenetic predispositions. Simondon's principal positing of the single person as situated between colligative pre-individual inscriptions and a trans(in)dividual realm realised in collective practices is, it seems to me, confirmed by today's socio-technological practices, even beyond Simondon's own expectations.

Dividuation refers us to a human entity that is even more complex than that posited in Simondon's conception of individuation, an entity that is aware of its qualitatively diverse and variously sized participations not only in the socio(techno)logical, but also in the bio(techno)logical realm, resulting in a greater complexity of its affective, imaginary and cognitive cohesion. After all, the synthesis of its modes of participation needs to be obtained from variously sized and possibly contradictory auto- and hetero-affections, from modes of deliberate affirmation and potentiation of participation, or of their self-reflexive disruption, depending on the mobility and elasticity of its psycho-physical coherence. The single person's "meta-stable state," a result of the non-human and technological others that inhere within the person, appears even more precarious than in Simondon's day. The single person must "resolve" the "incompatibility" of its partial dividuations, reflecting and symbolising its instability through forms of linguistic, eidetic or action-based counter-realisation.

In this account of multi-layered human subjectivation, one recognises the recurrence of an old idea already formulated by Spinoza and updated in Freud's psycho-analysis: namely, that individuals are composed of diverse individuals, of inherited affects, unconscious fantasies and collective cathexes that Spinoza sees as a source of increased power, depending on the degree of their multiplication and further affection. It is symptomatic that today, processes of self-division and culturally transversal pluri-orientation are most incisively problematised in the field of intercultural and transcultural studies: in their countries of arrival, immigrant persons find themselves prompted to subdivide and multiply their identities

based on their initial and divergent cultural orientation and the ways it joins with the dominant culture, as well as with that culture's valuations and its politics of recognition. Said joining succeeds to the extent that their divergent ethnic, gender and estate features are recognised and cohere, even in spite of a possible denial of acceptance.

In Spinoza, the extension of the human perspective is associated with the hope of relativising the passions and achieving an accrual of self-empowerment. But today, the dissolution of the temporal perspective's boundaries can be unsettling, since in spite of their manifold relations of participation, it is precisely when they broaden their perspective that it may dawn on single persons how short-lived and, from a global perspective, low-visibility their participatory successes are; they constantly require new empowerment efforts, something that can affect them unfavourably in the long run.

To summarise, the concept of dividuation serves to denote interferences in the realm of ecosystems as much as between personal actors within the emerging knowledge and world societies. Given the difficulties of defining the boundaries of single organisms and biological species and the associated expansion of the eco-(techno)logical framework—and the network structures of knowledge and world society, which are becoming more dense and interactive—it seems appropriate to speak of dividual relations. Features of de-individuation can be observed not only within human subjectivations, but also in cultural and national-society ensembles, in the provision of knowledge as much as in production-technological procedures.

In his brief "Postscript on the Societies of Control" (Deleuze 1992), Deleuze draws attention to the flexibilisation of human and non-human single entities under the post-analogue regime of visibility and control, the compulsion to engage in lifelong learning, the substitution of the human signature by machine codes, the way in which previously self-enclosed ensembles now adjust to one another in real time and the targeted modulation of such adjustment. To a greater extent than Deleuze could have foreseen, single persons are today finding themselves subject to a continuous movement of liquefaction and dividuation, a result of the compulsion to participate and to process oneself, as well as digital registration, the anticipatory profiling of interests and assessments of economic capabilities.

Last but not least, the concept serves to define aesthetic practices that are usually also linked to technologies and de-individuate themselves in the modes of repetition, appropriation and modification. When these practices attain an intensified variety of articulation and an opening-up of their post-anthropomorphic percepts and concepts through artistic implementation, this can be seen as precisely what constitutes their advantage: their de-norming and art-specific potential. Deleuze calls "dividual" the expression of temporally determined aesthetic heterogeneses, particularly in cinematic and musical artworks; he denies that their multiplication of visual and auditory signs, sounds or voices (a multiplication that occurs within temporally shifting frameworks) displays a localisable and definable individuality, but nevertheless sees them as congealing into a particular, even singular expression. In his first study on cinema, Deleuze uses the term "dividual" to accentuate the constant changes in framing proper to certain films, whose portrayal of ever changing audiovisual elements and ambiguous expression of affect cannot be called individual: "The affect is impersonal and is distinct from every individuated state of things; it is nonetheless singular and can enter into singular combinations or conjunctions with other affects" (Deleuze 2005). He considers it important to emphasise that in spite of emerging from a variety of aesthetic factors, the expression of affect is indivisible; he also refers to the new qualities it constitutes when combining with other affects as indivisible. However, since they necessarily vary in time and in audiovisual recombination and can never be fixed, he calls them dividual. He conceptualises the dividual as an aesthetic differentiality, an undivided dividuatedness (as outlined above). This undivided dividuatedness, which is distinct from a notion of individual indivisibility by virtue of its immanent variability and interwovenness with other aesthetic elements, is also attributed, by Deleuze and Guattari, to certain musical compositions, such as Luciano Berio's compositions in which he makes tones resound in a "multiple cry, a cry of the population, in the dividual of the One-Crowd" (Deleuze and Guattari 2008, p. 377).

The concept of the dividual developed by Deleuze with reference to certain artworks will here be applied to human subjectivations as well; to restate its definition in different terms, it refers to a process of disjunctive conjunction. It combines qualitatively diverse participations into a mobile cohesion that changes in a time-dependent manner; it keeps them

apart in a "One-Crowd" in which it articulates itself in a polyphony and at times dissonantly. In a related sense, Michel Foucault outlines, in his preface to the US edition of *Anti-Oedipus*, desirable group formations that he calls a "generator of de-individualization" (Foucault in Deleuze and Guattari 1983, p. xiil). This demand imposed on the artwork and on human subjectivations and social formations alike—that of being diverse and at the same time particular, both open and delimitable—constitutes the ultimate challenge today, both for single humans and their symbolic practices, and for cultures and societies. For how is one to lastingly succeed in uniting the modes of decentred pluri-participation into a structure that is both mobile and coherent, and which, moreover, achieves for itself as singular an expression as possible? It seems to me that given modes of participation shared with many others, it would make more sense to consider that which articulates itself not as a singular and unique, but as a different expression, one with its own special profile and tone, for instance, a particular quantity.

Alfred North Whitehead attempts to conceptualise such relations of participation when he insists on situating "atomic" single beings within a "divisibility" (Whitehead 1929, p. 321) whose actual division they can "bring about," and which guarantees them undividedness and divisibility at one and the same time. Both "one" and "definitely complex" (p. 321), they are "united by the various allied relationships of whole to part, and of overlapping so as to possess common parts" (p. 91). As complex units, they then provide each of their components with "a real diversity of status" with a "reality" that is "peculiar" to them (p. 322). Prior to the reflections outlined here, Whitehead assumes different participations and subdivisions proper to single entities; this is why he attributes to them "subjective unity," "objective identity" and "objective diversity" (p. 321), all at once. Because of their objective diversity, referring to them as "atomic" seems to me to be inappropriate, all the more so as Whitehead emphasises that "[t]here are always entities beyond entities, because non-entity is no boundary" (pp. 91–92). It would seem more consistent to conceptualise them as processes of variously rhythmatised and qualitatively diverse participation that are nevertheless "more than a mere collective disjunction of component elements" (p. 323). Their psycho-physical coherence, autopoeietic dynamic and vital expression fuse them into a specifically complex unity with a particular aesthetic profile.

In the light of this, the epistemological motif of undivided dividuation needs to be emphasised once more: single beings physically and psychically constitute themselves within a "continuum of division" before they participate actively in that continuum and model themselves further through conjunction and disjunction of participations, through potentiation or disruption. Depending on the extent to which they succeed in joining their various modalities of participation, but also in retaining the openness of their mobility, rhythms and further affections in acts of reflexive symbolisation and real encounter, they describe themselves as connected or isolated, or both at once. "Both at once" is presumably the basic feeling most characteristic of today's human modes of existence: in spite of being connected to various 24-hour hotlines, and in spite of sharing with millions of other people the same place of residence, the same life practices and pieces of information, not to mention sharing a physique and genetic code with an even greater number of others, these modes of existence may experience themselves not just as spatially but also as affectively isolated, and as harshly separated from the social whole.

On the other hand, it is precisely today that new possibilities are opening up for single persons to connect and form transdividual socialities and affective condividuations: modes of communicative, action-oriented, multi-directional association. In themselves, these variously extensive socialities replicate the dividual structure, insofar as they result from different modes of participation, from the release of colligative wishes and fantasies on the one hand and from polyphonic, consensus-oriented negotiations on the other: negotiations that open up a problem area and are not necessarily liable to produce decisions and actions. They can nevertheless merge, like a human megaphone, into a specific expression of affect that testifies to a particular tone, a new aesthetic quality, a recently invented form of cooperation, thereby assuming an epistemological quality. The term used to refer to such affective-cognitive multiplicities, "condividuation," is inspired by Gerald Raunig's (Raunig 2011) term "condivision." Raunig coined his term to refer to politically motivated, non-identitarian associations of singular multiplicities. The perspective of condividuation is also intended to draw attention to economic inequalities of distribution and denied participation, serving as a reminder that the age of imposed participation and of the imperative to participate calls for the invention of new modes of dissident redistribution.

Processes of dividuation are also increasingly evident in the aesthetic and artistic realm, due both to technology-based practices and to the globalisation of the art scene, as well as to the close spatio-temporal cross-referencing of artistic positings, their quasi-simultaneity of presentation and reception, their simultaneous presence at various exhibition sites and in different cultural contexts. As is well known, the uniqueness and authenticity of the artwork have already been denied for some time, due to the possibility of its mechanical reproduction, even if photographs and films attempt to newly auratise themselves by means of magnitude and spectacle. Self-reflexive artistic practices that are aware of their own historical and media-determined prestructuredness therefore increasingly rely on processes of dividuation, on procedures of repetition, appropriation and modification, employing tactics of reframing and recontextualising in a manner ranging from the ironic to the provocative. Their specific engagement with their necessarily dividual constitution will be the subject of the final chapter, which outlines processes of dividuation that result from today's mediatic processes of production and distribution, but also from the simultaneous presentation of artworks in different exhibition contexts and the reciprocal reflection of those contexts. The final chapter also emphasises the dividual features of specific, time-based artworks that render innumerable actants audible or visible and realise their own form of aesthetic participation through formal heterogenesis.

The present inquiry is also an attempt to diversify and differently scale the perspectivation of processes of participation cinematically, so that the variously sized dividuations become recognisable in their particular interrelationship and epistemic diversity. After all, one and the same object of observation can appear as a relatively coherent single entity that is associated primarily with human others when considered from a macro perspective, whereas from a micro perspective, it appears as an entity inhabited by countless non-human others, inseparable from them and difficult to outline. Even when one remains on the macro level, certain interweavings need to be relegated to the background if one wishes to profile the single person as object of cognition.

In summary, my choice of the term "dividuation" amounts to a value judgement insofar as I emphasise some features of single entities more than others: I stress their passive-active constitution over their autonomous power, their ongoing dividuation into diverse practices over the self-positing they perform through expressive acts, their distribution of

capabilities over their specialisation, their interculturally diverse affections and mediatic interpassivities over their active interaction. The concept of dividuation is intended to foreground unconceptualised relations of interpenetration between taxonomically and discursively distinct magnitudes, between live human beings, micro-organisms, social structures and their constitutive practices. Whilst epistemologically distinct, they cannot be separated from one another in terms of the preservation of their specific single structures: the choice of the term 'dividuation' is prompted by relationships of distinguished indistinguishability.

Notes

1. Dirk Baecker speaks of the semantics of globalisation in its "critical variant", no longer applying its principle of relativity to culture, but to the "world;" Cusanus's formula "unity in multiplicity" yields to "the tautology of difference in multiplicity," an expression more adequate to our times; see idem, *Studien zur nächsten Gesellschaft*, Frankfurt on the Main: Suhrkamp, 2007, pp. 224–225.
2. Oliver Marchart's recipe against the "post-democratisation" of today's democracies is not to reinforce the sense of community, but to promote a "stronger sense of the heterogeneity of one's own identity and the fragility of one's own foundations, for instance a greater sense of self-alienation." See idem, pp. 362–363.
3. This reflection is akin to Bruno Latour's political ecology, which strives for a temporally unbounded and microscopic perspective and emphasises the "perplexity" of contemporary becoming-world, given the often scarcely noticeable interaction between human and non-human "spokespersons." This perplexity is examined on the basis of a cognitive interest that wishes to "multiply matters of concern" and provide "a different sorting principle" (p. 26), or, in fact, different objects: "Unlike their predecessors, they have no clear boundaries, no well-defined essence, no sharp separation between their own hard kernel and their environment. It is because of this feature that they take on the aspect of tangled beings, forming rhizomes and networks. […] [S]cientific, technological, and industrial production has been an integral part of their definition from the beginning. […] They have numerous connections, tentacles, and pseudopods that link them in many different ways to beings as ill-assured as themselves and that consequently *no longer* constitute *another universe, independent of the first*."

Bruno Latour: *The Politics of Nature: How to Bring the Sciences into Democracy*, Cambridge MA: Harvard University Press, 2004, p. 24.

4. N. Katherine Hayles defines "hyper-attention" as "a cognitive mode which has a low threshold for boredom, alternates flexibly between different information streams, and prefers a high level of stimulation." See idem, *How We Think: Digital Media and Contemporary Technogenesis*, Chicago: University of Chicago Press, 2012, p. 12.
5. "La 'privatisation des consommations culturelles' […] peut aussi être considérée comme une forme de libération passant par la marchandise. L'écoute d'un enregistrement quand on veut, où l'on veut, grâce à la portabilité des appareils de lecture, et par l'accès au type de musique que l'on souhaite entrendre précisément ici, à cet instant et pendant une durée choisie […] en est l'archétype" (Boltanski and Chiapello, p. 528).
6. The concept of the "transindividual," found in the works of Gilbert Simondon and Etienne Balibar, serves to emphasise the affective and cognitive bonds between different individuations, bonds based on psychic, imaginary or interactive rapprochement. Balibar himself notes the affinity between his own deployment of the concept, inspired by Spinoza, and Simondon's: "I was surprised to discover that specifically this term, with a full definition and theoretical implementation, has been used by a French philosopher, Gilbert Simondon, in his book *L'individuation psychique et collective*. My surprise was even greater when I realized the extent to which Simondon's arguments in fact are truly Spinozistic, literally converging with some basic propositions of the *Ethics*, although Simondon himself (like many theoreticians in history) denies that he owes anything to Spinoza and even rejects his doctrine which, in a rather conventional way, he sees as 'pantheistic', or a negation of individual reality." See [http://www.ciepfc.fr/spip.php?article236].
7. "En tant qu'idées, la démocratie et la thématique des droits de l'homme qui lui est connexe ont été produites par l'histoire occidentale, reposent sur une valorisation de la notion d'individu (par opposition à celle de personne) que n'assument pas les sociétés pré-coloniales et ont été introduites en Afrique dans le sillage de la colonisation," J.-F. Bayart, A. Mbembe, C. Toulabor, *Le Politique par le bas en Afrique noire: contributions à une problématique de la démocratie*, Paris: Karthala, 1992, p. 66.
8. Etienne Balibar also dates the rise of "individualism" to the early nineteenth century; see idem, *Equaliberty: Political Essays*, Durham: Duke University Press, 2014, p. 68.
9. C.f. Whitehead's associated categorial scheme, in: idem, *Process and Reality*, Cambridge: Cambridge University Press, 1929.

References

Ackerman, Jennifer: Titelthema Mikroben. Tausend Billionen Freunde, Spektrum der Wissenschaft (Heidelberg), November 2012, pp. 27–33.

Agamben, Giorgio: *Homo Sacer: Sovereign Power and Bare Life*, Stanford: Stanford University Press, 1998, p. 48.

Agamben, Giorgio: *Nudities*, Stanford: Stanford University Press, 2011, p. 43.

Agamben, Giorgio: *What is an Apparatus? and Other Essays*, Stanford: Stanford University Press, 2009.

Balibar, Etienne: *Equaliberty: Political Essays*, Durham: Duke University Press, 2014, p. 68.

Bayart, J.-F., Mbembe, A., and Toulabor, C.: *Le Politique par le bas an Afrique noire*, Paris, 1992.

Beck, Ulrich: *What is Globalization?*, Cambridge: Polity Press, 2000.

Boltanski, Luc and Chiapello, Eve: *Le nouvel ésprit du capitalisme*, Paris: Gallimard, 1999.

Burckhardt, Jacob: *The Civilisation of the Renaissance in Italy*, London: Swan Sonnenschein & Co., 1892.

Butler, Judith: *Frames of War: When is Life Grievable?*, London: Verso, 2009, p. 20.

Castells, Manuel: *Mobile Communication and Society*, Cambridge, MA: MIT Press, 2007.

Clam, Jean: *Orexis, désir, poursuite. une theorie de la désirance*, Paris: Ganse arts et lettres, 2012.

Deleuze, Gilles: *Cinema 1: The Movement-Image*, London: Continuum, 2005.

Deleuze, Gilles: *Difference and Repetition*, New York: Columbia University Press, 1994.

Deleuze, Gilles: *Postscript on the Societies of Control*, Vol. 59, October 1992, pp. 3–7.

Deleuze, Gilles and Guattari, Félix: *Anti-Oedipus: Capitalism and Schizophrenia*, Minneapolis, MN: University of Minnesota Press, 1983.

Deleuze, Gilles and Guattari, Félix: *A Thousand Plateaus: Capitalism and Schizophrenia*, London: Continuum, 2008.

Deleuze, Gilles: *Logic of Sense*, New York: Columbia University Press, 1990, p. 150.

Foucault, Michel: "Preface", in: Gilles Deleuze/Félix Guattari, *anti-oedipus. capitalism and schizophrenia*, London: Athlone 2000, pp. xi–xiv: p. xiv.

Galloway, Alexander R.: *Protocol: How Control Exists after Decentralization*, Cambridge, MA: MIT Press, 2004.

Gernert, Johannes: "Dieses verdammte Internet" (interview with Katie Jacobs Stanton), die tageszeitung, Berlin, 15/16, September 2012, pp. 30–31.

Habermas, Jürgen: Individuation through Socialization: On George Herbert Mead's Theory of Subjectivity, in: J. Habermans (ed.), *Postmetaphysical Thinking: Political Essays*, Cambridge: Polity Press, 1992.

Hall, Stuart: The Meaning of New Times, in: Stuart Hall and Martin Jacques (eds.), *New Times: The Changing Face of Politics in the 1990s*, London: Verso, 1990, pp. 116–134.

Hall, Stuart: "The Question of Cultural Identity," in: D. Held and T. McGrew (eds.), *Modernity and its Futures*, Cambridge: Polity, 1992, pp. 273–325.

Hansen, Mark B.N.: "Medien des 21. Jahrhunderts, technisches Empfinden und unsere originaere Umweltbedingung," in: Erich Hoerl (ed.), *Die technologische Bedingung. Beitraege zur Beschreibung der technischen Welt*, Frankfurt a.M.: Suhrkamp, 2011, pp. 365–409.

Hansen, Mark B.N.: *Feed-Forward: On the Future of Twenty-First-Century Media*, University of Chicago Press, 2015.

Hayles, N. Katherine: *How We Think. Digital Media and Contemporary Technogenesis*, Chicago, 2012.

Kittler, Friedrich: *Austreibung des Geistes aus den Geisteswissenschaften*, Paderborn/München: Schoeningh, 1980.

Lovink, Geert: "Eine Welt jenseits von Facebook. Alternative soziale Medien. Die Forschungsagenda des Netzwerks Unlike Us," in: L. Engell and B. Siegert (eds.), *Zeitschrift fuer Medien und Kulturforschung*, Weimar, 2/2012, pp. 51–62.

Luhmann, Niklas: *The Theory of Society*, Vol. 2, trans. Rhodes Barrett, California: Stanford University Press, 2013.

McLuhan, Marshall: *Understanding Media. The Extensions of Man*, London: Routledge, 1964.

MetroZones (ed.): *Faith is the Place. The Urban Culture of Global Prayers*, Berlin: Assoziation A, 2012.

Miller, Vincent: *Understanding Digital Culture*, Los Angeles/London: Sage, 2011.

Raunig, Gerald: "Etwas mehr als das Commune. Dividuum und Condividualitaet," in: *grundrisse 35*. Zeitschrift fuer Linke Theorie, Wien, 2011.

Simmel, Georg: *On Individuality and Social Forms: Selected Writings*, Chicago University Press, 1992.

Stiegler, Bernhard: *Denken bis an die Grenze der Maschine*, Berlin: Diaphanes, 2009.

Whitehead, A.N.: *Process and Reality. An Essay in Cosmology. Gifford Lectures Delivered in the University of Edinburgh during the Session 1927–1928*, New York: Macmillan; Cambridge, UK: Cambridge University Press, 1929.

2

Individual/Individuality/Individuation

Atomist Approaches

From the fifth century BCE, Greek and Latin atomists formulated a natural philosopher's concept of the universe comprising uniform movement of the smallest undivided entities and the vacuum prevailing between them. *Atoma* (*ἄτομα*) is how Democritus and, at a still earlier stage, his tutor Leucippus, describes the final "indivisible" elements of the physical (Diels 1956, trans. Freeman 1948). Each of this infinite number of atoms was said to be "compact" and constant, differing from others in "form" and not material. "Their indivisibility is explained by their compactness, for where there are no interstices (no emptiness), there can be no question of division" (Röd 1976, p. 195). Their combination in complex entities such as water, fire, plant, human being consequently means that they are not distinguished from one another qualitatively, but only quantitatively (by mass) and relationally (by position): "the atoms are without qualities; they have only values and position determinations, thus they are also called forms": *idea*, *morphe*, *schema*; aside from their endlessly variable configuration and their position, they are said to be differentiated by "arrangement" and by "relationship between particles" (196). In

M. Ott, *Dividuations*, DOI 10.1007/978-3-319-72014-2_2

the second century, Galen cites Democritus to reaffirm this assumption: "Sweet exists by convention, bitter by convention, colour by convention; atoms and Void [alone] exist in reality" (Galen trans. Freeman 1948). Democritus' statement proves that he already makes an epistemologically critical distinction between the irreducible substances of ephemeral accidentals, and thus must arrive at the statement that: "We know nothing accurately in reality, but [only] as it changes according to the bodily condition, and the constitution of those things *[atoms]* that flow upon [the body] and impinge upon it" (Freeman 1948, p. 142). In this localised context, it is significant that "atom" was coined as a speculative, not a descriptive, label for ultimate units, in order to find a solution to the ontological problem not of *being*, but of *becoming*: an explanation is required for the seeming contradiction between the observation of real change in things and the Eleatic demand for that which truly is to remain unchangeable, supposedly concretised in the atom. For this purpose, one assumes emptiness 'in' the things between their atoms and they are believed to be modified by impact and pressure: the concept of complex things being subdivided and an internally mobile composition of the undivided is presented here for the first time. Thanks to emptiness, unchangeable undividedness in the micro-realm was believed to generate a changeable divisibility in the macro-realm.

This presumption that the cosmos was composed of atoms and emptiness signified to some extent a rebuttal of the Miletus philosophers who declared the universe to be composed of permeating principles such as air, water, or *apeiron*, the "unbounded/unlimited." The younger-generation atomists of the first century BCE, particularly Lucretius and Epicurus in his teachings as transmitted by Lucretius, make statements on contacts, collisions and deviations, on *declinationes* and *clinamen* between the atoms—which, for the first time, make conceivable the emergence of the unforeseen and new.

Aristotle characterises the older atomist teaching in *Peri psyches/De anima* (1931) with regard to its anthropological assumptions: "On this supposition Democritus argues that the soul is a sort of fire or heat. For forms and atoms being countless, he calls the spherical ones fire and soul, and likens them to the (so-called) motes in the air, which can be seen in the sunbeams passing through our windows; the aggregate of these par-

ticles he calls the elements of which nature is composed. And Leucippus adopts a similar position" (*On the Soul* 1936, 404a). Aristotle himself characterises the irreducible singular as *ousia*, as the first substance or single thing, as "this that is here" (*tode ti*) or "singular" (*kath ekaston*) that "which [is] neither present in a subject nor predicable of a subject, such as the individual man or the individual horse" (*Categories* 1962, V, 10). One sees that the examples given are not about what we understand to be indivisible elements, but individual life forms, whose substance is believed by Aristotle to be an ultimate unit because it is not reducible to something more fundamental: "All substance appears individual. And this is indisputably true in the case of the primary substances. What each denotes is a unit" (V, 29). Aristotle thus makes the first identification of the singular undivided with human beings (and admittedly also with other beings of many types), because they are understood as "fundamental:" "Substance, again, strictly speaking, applies to first substances only, because they not only underlie but provide all things else with their subjects" (V, 25). In *Categories*, he also equates the undivided with *eidos* (species) and *genos* (genus) as "secondary substances" (V, 19): "those within which, being genera, the species themselves are contained" (V, 19). Not only the specific human being, but also "species" and "genera" are declared substances, making the question of indivisibility and the individuating principle more urgent. Since certain primary substances, such as the individual human being, fit into the secondary substance, their *eidos* or species, both are conceded reality and autonomy. Therefore, it is questionable that the secondary substances, which are necessarily divided (into primary substances), can at the same time be understood as undivided.

In *Metaphysics* (1933) Aristotle declares the substances to be "something definite:" "Clearly then it is by reason of the substance that each of the things referred to exists. Hence that which is primarily, not in a qualified sense but absolutely, will be substance" (1028a). He now admits to the indeterminacy of substance: "Some say that it is one; others, more than one; some, finite; others, infinite" (1028b). The substance is supposed to be generated through the formation of matter by the formal cause; its unity is determined by a final cause, the *telos*. The material principle, because it is largely indeterminate, receives its determination only through the form; the formal cause, because it only arrives at an

effect through substances, is not in reality separable from these, but only in concept terms. With Plato in mind, he discusses the question of whether form must be presumed to precede material, or whether material should instead be considered fundamental (1029a). He opposes form preceding material and advocates for both acting together, and for the particularising of the single entity through the forming of the material: "The thing which generates is sufficient to produce, and to be the cause of the form in the matter. The complete whole, such-and-such a form induced in this flesh and these bones, is Callias and Socrates. And it is different from that which generated it, because the matter is different; but identical in form, because the form is indivisible" (1034a). Since the form is understood to be indivisible, he arrives at the strange assertion that the single entities must be distinguished according to materiality—which now appears as the individuating principle. The single human being is distinguished from others not by humanity, but by specific corporeality. In the reading predominating among Aristotle's medieval recipients, the matter or a part of the matter—or the joint action of matter and form—was declared to be the individuating principle on the basis of this and related assertions. It is not only when the individual is identified with an essence—which, in turn, can only be declared evident with reference to concrete single entities such as Socrates and Callias—that it becomes plain that the question of individuality remains problematic. Aristotle also concerns himself with the question of unity of the single entity, such as that of the human being as a "two-legged animal" (1037b) and himself poses the question of whether one should not understand it to be a plurality. "For in the case of 'man' and 'white,' we have a plurality when the latter does not refer to the former" (1037b). Instead of using the fact that all human beings are not necessarily white as an example, he distinguishes between mankind and colour insofar as the latter may be an attribute of other substances also. The assumption of a unified species or genus in fact leads inevitably to those epistemological problems that trouble biology today thanks to improved observational instruments (discussed in detail in Chap. 4 on "Bio(techno)logical Dividuations").

The Latin term "individual" is believed to derive from Cicero's translation of the Greek *átoma*, encountered in the treatise *De finibus bonorum et malorum*[1]:

> Democritus believes in certain things which he terms 'atoms', that is, bodies (*corpora individua*) so solid as to be indivisible, moving about in a vacuum of infinite extent, which has neither top, bottom nor middle, neither centre nor circumference. The motion of these atoms is such that they collide and so cohere together; and from this process result the whole of the things that exist and that we see. Moreover, this movement of the atoms must not be conceived as starting from a beginning, but as having gone on from all eternity. (1931)

Cicero believes that the doctrine of colliding atoms goes back to Democritus; he also cites Epicurus' statement that "these same indivisible solid bodies are borne by their own weight perpendicularly downward." In order to explain contacts between atoms, Epicurus, who is invoked by Lucretius, postulates modern-sounding "complexities:" "The atom makes a very tiny swerve—the smallest divergence possible; and so are produced entanglements (*complexiones*) and combinations (*copulationes*) and cohesions of atoms with atoms (*adhaesiones atomorum inter se*), which result in the creation of the world and all its parts, and of all that in them is" (21ff.). Cicero criticises the atomic doctrine, saying it is "unworthy" of a natural philosopher to believe in a smallest indivisible element. Lucretius, however, continues the Epicurean doctrine; the notion of the atoms' deviation (*declinatio motus*), which is not found in Epicurus' texts, may derive from him. Certainly, he does not once use Cicero's term "*corpora individua*" in *De rerum natura* (1991), favouring "*corporibus primis*" (295), "*corpuscula*" (2183a), "*seminibus*" (2284) or "*primordia rerum*" (2523) when speaking about the universe's basic building blocks and their collisions, deviations and divisions. Seneca also indicates that the entities he calls "*corpuscula*" are "*atoma*" in Democritus (Seneca: *Nat. quaest*, Diels (ed.), 1956, p. 168).

The new discussion of the individual occasioned by the medieval response to Aristotle is encapsulated in the scholastic definition: "What is in itself undivided and is divided by others" (*Historisches Woerterbuch der Philosophie*, 1976, p. 305). The goal of the research was a "principle of individuation" to answer the question: By what means is individuality conferred upon the individual? The fact that in Aristotle's view materiality is understood as the cause for the divisibility of the form (as in *Man's*

divisibility into many individual humans), means that, "the individuals can only be shown, not fully determined in terminology" (1984). This meant that its definition oscillated between the Aristotelian "primary substance" and person-specific accidentals such as the way of speaking of Socrates. Indeed, the individual was even understood as "not restricted to the genus 'substance' but extending to all genera, as a transcendental predicate" (*Historisches Woerterbuch der Philosophie*, 1976, p. 305).

When Albertus Magnus explores the "*principum individuationis*," he finds that everything that appears multiple in terms of number possesses materiality, and is thus subject to the individuating principle: "Materiality, however, is not absolutely the individuating principle, but is only the substrate or carrier of the *formae*, which is […] inherent in it by potency: […] *per rationem proprii subjecti est principium individuationis*" (*Historisches Woerterbuch der Philosophie*, p. 296). Thomas Aquinas extends this by restricting the individuation principle to the *materia signata* or "designated substance" (Aquinas 1965, 98), which specifies the individual within the species. Equally, he argues that "composed substances" such as human beings should be understood as the result of matter and form acting together—citing Boethius, Avicenna and Averroes, who differ from Aristotle in understanding "*ousia*" or *essentia* as a whole thing composed of the soul and body and as signifying more than the interaction of these components. Thomas Aquinas significantly emphasises that the human being is ultimately a *tertium* or third composed of the soul and body. He does not reflect any further on the determinability of the form or the "essence" of the human being, but derives this from the "*proprium*" of the species in question, which he does not justify further, but regards as a given; in the case of human beings, it derives from their "*humanitas*": "And this is why the word 'man' is predicated of individuals" (48). The individuating factor is thus no longer the substance, but the species-specific feature that characterises composed entities. What Kierkegaard said on the relationship of the individual and the whole during the Middle Ages in general would appear to apply to Thomist thinking:

> The Middle Ages are altogether impregnated with the idea of representation, partly conscious, partly unconscious; the total is represented by the single individual, yet in such a way that it is only a single aspect which is

> determined as totality, and which now appears in a single individual, who is because of this, both more and less than an individual. (Kierkegaard trans. D.F. & L. Svenson 1959, pp. 86–87)

Unlike the nominalists, who reject this Thomist realism and representationalism, Roger Bacon and William of Ockham return to Aristotle's primary substances, according them an ontological primacy. "Form is individuated through matter; but whatever exists in things is in such matter; therefore whatever is there is individuated; but a universal is not individuated" (Bacon 1989, p. 35). Bacon writes a chapter on the theme of "The Cause of Individuation" (93–96), in which he once again accords priority to the individual human relative to the universal:

> [M]an accrues to an individual outside his essence in a way similar to that of an accident and as that because of which the individual ought to be compared to another, that is to another individual. Therefore an individual, in as much as it is an individual, naturally has (its own) true being and its essence first, before its universal arises. And thus neither a universal nor anything added to it makes an individual. (93)

With regard to relationship to species, he ascribes to the individual a "twofold being": "one is absolute according to its principles which enter its own essence, and in this sense species are not the being of an individual. The other (being of an individual) exists because of the connection one individual has with another with which it agrees by nature, and that being constitutes the species (of the individual)" (95). Here, the species appears purely as a category of perception and epistemological category. William of Occam likewise assumes that nature produces only individual things (*res singularis*), since they are directly accorded their singular existence ("*singularitas immediate convenit illi*," 130) which cannot be distributed into many even by divine power (Ockham 2012, pp. 104–105 "*nulla res est realiter communis pluribus; igitur nulla res est universalis quocumque modo*" [104]). He believes that universals do not exist in reality but in the soul, as *fictiones*. He does, however, recognise a harmony between the *differentia individualis* or "individual difference" of single entities such as Plato and Socrates that is greater than that between

Socrates and a donkey. Due to the conviction that species and genus are purely names, corresponding to no *fundamentum in re*, the nominalists also deny the distinction made by Aristotle between substance and accidental and identify a body with its colour. Heinrich von Gent (*HWP*, p. 296), who also no longer considers materiality to be the individuation principle, rightly recognises that the human individual can only be defined as an undivided entity that can be demarcated from others via a double "negation": in that, "inwardly" its difference from others is reinforced and "outwardly" its full identity with the genus is denied.

Individual as Universe, Nature, World Spirit

In the major seventeenth-century theophilosophical theories, the relationship between undividedness and subdivisibility is established on the large scale, not in relation to human beings. Spinoza and Leibniz developed various extensive concepts on substance and how its immanent diversity and multiplications appear to depend on individuation processes. Leibniz's theory of a universe composed of monads, "individuals" or substances is a particularly fascinating conception insofar as the individual monads are credited with multiplicity and contradictoriness: as "simple substance which enters into compounds, 'simple' meaning 'without parts'" (Leibniz trans. Strickland 2014, para. 1). Unlike Democritus' material atoms, however, they represent a living whole set into action by inner "appetition" (16), created by God and said to be qualitatively different from others according to its particular actualisation of his "distinct perceptions" (19). The special aspect of a monad is that, as an infinitely small entity virtually containing the whole universe, it is said to be able to unfold from a specific perspective, dependent on the clarity of its varied perceptions—thus representing not a simple material construction principle but a process of dynamic and qualitative self-differentiation on the basis of an inner "plurality" (13). The "magnitude" or "number of perceptions" (19) is supposed to be responsible for memory and imagination and for the inner unrest that drives the monads to develop in ever different directions.

It appears to be combinable with others insofar as, corresponding with the imperfection of its expression, it can be "accommodated" (52) by God to other substances: "For when he compares two simple substances, God finds in each the reasons which oblige him to accommodate the other to it, and consequently what is active in certain respects is passive from another point of view" (52). In the *Monadology*, Leibniz thus speaks of an "interconnection" between the monads, which means: "each simple substance has relations which express all the others, and that consequently it is a perpetual living mirror of the universe" (56). In this sense, "everybody is affected by everything that happens in the universe" (61). And yet each monad is limited—while representing the whole universe and proceeding to infinity—by the distinctness and greater or lesser perfection of its perceptions. Plainly Leibniz tries to think simultaneously in terms of identity and differentiality, undividedness and subdividedness in the single being: whilst it is on the one hand strictly closed off to the outside world, non-permeable and non-separable, it is at the same time "actually subdivided without end, each part into further parts, each of which has some motion of its own" (27). In accordance with the mobility and the touching/contact continuum between the material particles—"for the whole is a plenum which makes all matter interconnected" (61)—the monads interact with all physical things and each express the whole universe in their own specific way. Thus, just as, on the one hand, the smallest material item can be subdivided in a virtually endless way, on the other hand it represents a factor, a part of a perfect universe, in which its expression can be influenced by others: "For it can happen that a single change which augments the expression of the one may diminish that of the other" (Leibniz trans. Montgomery 1992). This assumption on expressive interaction between the monads exists in a tense relationship to the assertion that the windowless monads experience no external influences. He thus hastens to add that this influence is not to be understood as external and concerned with substantiality and physical un-dividedness, but as an "idea(l)" process. This also implies that the monads, in spite of their physical undividedness, exist in an affect continuum that lends them a world-spanning communicative and participative character.

Nor does undividedness reign undisputedly on the material or physical level, however, as the bodies tied to the monads are subject to external

causa efficiens (effective causes). Deleuze thus differentiates Leibniz's conception with regard to "an always extrinsic physical causality which extends from one body to all those from which it receives the effect, to infinity in the universe […] and an always intrinsic psychic causality, which goes from each monad on its own account to effects of perception of the universe that it produces spontaneously, independently of all influx from one monad to another" (Deleuze trans. Conley 1993, p. 111). For Leibniz, two exceptionally divergent (in)dividuation directions thus come together in the individual monad: as an affect transmission medium, its attached body presents as (im)parted/mediated from the beginning, indeed, as transmitter of all bodily stimuli, it has an *a priori* dividual character; whereas the soul subdivides itself by virtue of distinct perceptions and thus represents the universal, representing its body in a dual manner. One sees that the idea of the individual and the simple atom, the undivided entity, thus faces multiple threats in Leibniz's conception: not just in the assumption of a continuous self-affection of all bodies so that they mutually (de)individuate each other, but also in the reproduction of this affect relationship in the soul, which is also subject to the "ideal" influence of other monads upon it and the compulsion to adapt to the whole universe.

Spinoza's well-known *Ethics* (Spinoza trans. Eliot 1981) translates the notion of a unity in multiplicity into the model of a unified substance, with (self) perception and affection in "attributes" and "modes" (Definitions 4 and 5). Substance as "*deus sive natura*," as "a Being absolutely infinite" (Def. 6, 5), outside of which nothing exists, presents as a continuously differentiating infinity, with each of its infinite attributes and each of its modes expressing its essence. The perception and affect-based actualisation of the substance in attributes and modes permits the presumption of its qualitative subdivision into intelligible "essences" (Def. 4) and modal "affections" (Def. 5): it is said to be perceived and articulate itself wholly and yet differently in each case. This principle of progressive differentiating non-differentiatedness, which can also be understood as an epistemological and affective procedure of (de-in)dividuation, also extends to the human thoughts and body as partial processes: they are thus accorded the same status.

In his reflections on the nature of the human mind, Spinoza defines thought as an "attribute of God," but single thoughts as "modes which express the nature of God in a certain and determinate manner" (II, Propositions I). The human mind is such a mode: "the object of the idea which constitutes the human mind is the body or a certain mode of extension actually existing" (II, Prop. XIII). The body as object of the idea expresses "the essence of God" (II, Def.1); as with Leibniz, it is accorded a critical affect capacity: "That which so disposes the human body that it can be affected in many ways, or which renders the human body capable of affecting external bodies in many ways, is useful to man; and it is the more useful the more capable it renders the body of being affected in many ways and so affecting other bodies" (IV, Prop. XXXVIII). Its double passive-active capacity for affectability and further affection is significant, co-determining the dynamic of intellectual activity. According to Spinoza's famous dictum on this matter, the mind is all the more able to perceive a multiplicity: "as any body is more capable than others of acting and suffering many things simultaneously" (II, Prop. XIII). Thus, he asserts a parallelism of mind and body, but also that the potency of both depends on the multiplicity of their passions and actions: the realisation of their appropriate mode. This evaluation of physical/cognitive mobility is consistent with Spinoza's previously mentioned assumption of bodily multiplicity accompanied by essential constancy in the human individual: "the bodies composing an individual are compelled to change the direction of their motion, but so that they can continue their motion, and communicate it to each other in the same ratio as before; this individual will retain its nature without any change of form" (II, prop. XIII, Lemma 6). It becomes questionable whether an entity composed of various bodies can reasonably be described as an undivided entity, even if it recognisably preserves coherence and consistency. To explain the composition of various individuals, he states that "the human body requires for its preservation many other bodies by which it is continually as it were regenerated" (II, Prop. XIII, Postulate 4). Its solid, fluid and gaseous (segment) individuals appear, for their part, to be affected by other bodies and to affect other bodies; they duplicate themselves internally and externally, passively and actively.[2] Since mental mobility is supposed to vary and diversity of ideas is supposed to increase parallel to affection capacity

of the (partial) individuals, Spinoza arrives at the outline of an incendiary idea: "Therefore the idea of the human body is composed of all the ideas of the parts composing that body" (II, Prop. XV). Individual persons appear as self-multiplying dividuations becoming ever more active, dependent upon their affection capacity and idea multiplication: just as the body subdivides into further bodies and resources, so too does the mind unfold new ideas which increase the potency of the individual. Spinoza finally tops this assumption by describing the whole of nature, all substance, as individual: "the parts of which, i.e. all bodies whatever, vary in infinite modes without any change in the whole individual" (II, Prop. XIII, Schol).

Unlike Leibniz, Spinoza does not allow the human individual to be subject to two different causalities. Instead, he conceives of it as a dual-strand, simultaneous duplication procedure of body affections and idea production. The human mind is active or suffering depending on the "adequate cause" of its ideas "by means of which the effect can be clearly and distinctly perceived" (III, Definition 1). "Passions belong to the mind only so far as it has something which involves negation, or, so far as it is considered a part of nature which […] cannot be clearly and distinctly perceived" (III, Prop. III, Schol). Here, Spinoza outlines what he understands to be negative dividuation, since the mind, also, may be "part" of something that it does not recognise clearly, or require other "parts" in order to attain expression. The visualising power and its imagination of body-facilitating effective powers is accorded a significant role with regard to mental activation. From this, Etienne Balibar concludes that the Spinozistic individual is progressively re-created by de-composing and reconstructive procedures, on the basis of what Simondon calls "pre-individual" received influences (which precede consciousness) and Balibar himself calls "collective" circumstances:

> [T]he complete concept of an individual is that of an equilibrium which is not fixed, but dynamic—a *metastable equilibrium* which must be destroyed if it is not continuously recreated. Moreover, such equilibrium implies a virtual de-composition or deconstruction, provided there is always a process of re-composition or reconstruction already taking place. But this reconstruction, although it expresses the individual's singular essence, is

> itself determined by "collective" processes, i.e. the "constant proportion of motion and rest" or, in a different terminology, the *convenientia* which allows individuals to build up a greater individual, or an individual of higher order. (ibid.)

Spinoza's ethic thus amounts to a call to increase individual subdividedness and affection through additional and other individuals, causing Balibar to identify "trans-individuality" as the convergence point of the Spinozistic concept. Admittedly, he affirms not only the "inward" multiplication of the individual and its "outward" connection, but also its blending with others:

> If, for example, two individuals of precisely the same nature are united together, they compose a double individual more powerful than the single. Hence there is nothing more useful to man than man; nothing, I say, that man can choose more appropriate to the preservation of his being, than that all men should so agree in all things; that the minds and bodies of all should compose as it were one mind and one body, all at once, as far as they are able, striving to preserve their being, and all at once seeking for themselves what is a common good to all. (IV, Prop. 18)

It is neither the particularising and reinforcing of the individual nor its potentiated subdivision and multiple affection that he presents as desirable, but mental convergence and bodily symbiosis of individuals for the purpose of self-preservation, at once single and collective. Thus, he claims that wisdom and happiness ultimately arise from the mental relativisation of affects, from a focus on the "essences of things" (V, Prop. 25) "under the form of eternity" (V, Prop. 29) in the love of God. They signify participation in values that appear by definition exempt from affection and (de-in)dividuation.

The identification of the individual with the single human being increases after the point in European cultural history at which common citizens began to claim legal equality with the nobility, arguing that they belonged to the same genus and claiming a higher ethical standing on the basis of their virtues. Admittedly, at around the end of the eighteenth century the individual once more receives a meaning far beyond the

anthropomorphically tailored version through Hegel's philosophy, in which it is elevated to a spiritual principle—all the more so since he dispenses with any form of materiality—and ultimately appears to be synthesised on a higher level in the development of the absolute spirit, as a factor of "world history" (Hegel 1971, p. 120).

Quite aside from philosophical and literary designs, the eighteenth century sees individuality as an anthropomorphic value moulded into that both concrete and genus-generalised value which bourgeois existence wishes to recognise in itself to this day—via the family archive, school reform, healthcare politics, matters of conscience, debate on natural law, hermeneutics practices, salon culture and liberal economy. The concept of the individual harmonises the philosophical Enlightenment assertions of the equality of all human beings with those of the non-interchange ability and particularity of all single entities: "The individualism that strives for its realisation in this way, however, had as its basis the *natural equality* of the individuals, the notion that all ties were artificially created inequalities, and that, if one removed these, with their historical accidents, their injustice, their pressure, the perfect human being would emerge" (Simmel 1984, p. 213). In the existence of the human genus without rank and name, the Enlightenment theatre aesthetic wished to demonstrate attitudes of uprightness and steadfastness as opposed to feudal power games—or to dramatise their failure and sacrifice—in order to enable the spectator to identify with those like himself and, additionally, to establish a bourgeois self-understanding and a struggle for independence of action and morality.

Ever-more precise researches into human consciousness of self led the philosopher J.G. Fichte to develop a dynamic "ego" which is supposed to frame its own self and its being through its endless striving for autonomy, at once the active party and the product of its actions. Fichte presumes that a law of the spiritual world unites the single person with all human entities from the outset: "self-active reason" (Fichte 1848 tr. Smith, p. 172). What is decisive in this context is Fichte's identification of the human being as a social entity that must be brought into harmony with the ego. However, since the human "drive" is originally for interaction, for "mutual influence, mutual giving and receiving, mutual suffering and doing" (Fichte tr. Smith 1847a) and towards "coordination," the ultimate

purpose of human existence is none other than "unity and unanimity with all individuals," and, in a word, "union." Habermas (1988) presents Fichte's basing of the individual consciousness in "intersubjective" processes as a forerunner of his own conception of reason.

Fichte responds to the diversity of human beings—which can hardly be overlooked—by stating that reason decrees that these differences should be balanced out—through upbringing and education. He imposes on society the pedagogical task of compensating for what single persons have been deprived of by nature: "It (the society) will take care that every individual will receive through the hands of society, the whole and complete cultivation which he cannot receive immediately from nature" (Fichte trans. Smith 1845). A "uniform" education is supposed to fit the individuals to realise their nature as reasoning members of the genus, since "Ideas embrace the Race ["*Gattung*," more accurately translated as "genus"] as such." (p. 35) Thus, Fichte arrives at the conclusion that the genus-oriented life represents the "higher life" of the individual: "To forget oneself in others—not in others regarded likewise in a personal character, where there is still nothing but Individuality—but in others regarded as the Race" (p. 35). Ultimately, Fichte associates the reason-based life with the setting aside of individuality, approaching close to Spinoza in stating that it is the ultimate goal and perfection of humanity: the final and highest end of society is the complete unity and unanimity of all its members. From making this demand, he derives a criticism of existing societal circumstances, with their individualising endeavours, and an appeal to once more bring together the "living": "This division of the one Living Existence is an arrangement of nature, and hence is a hindrance or obstruction to the true life—and only exists in order that through it, and in conflict with it, that unity of life […] may freely fashion itself" (Fichte trans. Smith 1845, p. 141). He wishes to see the removal of this splintering of the life-stream into individuals entrusted to the state, since it is the responsibility of the state, as a power introduced into the world, to supersede the conflict of individual forces "through universal morality." The state as the great dividuator: in spite of all their philosophical differences, here we see a certain affinity between Hobbes, Rousseau and Fichte. For their ideal state, they desire the bodily/affective union of de-individualised citizens and, like the latter, Fichte dreams of a human race elevating itself to unanimity. Fichte,

whose maxim is "unconditional rejection of all individuality!" (Fichte 2016) calls, not least, for the implementation of a "super-individual" ("Antwortschreiben an Reinhold," 1801). We in an idealised human community with all the living, whose usefulness to the ennobling of mankind is explicitly emphasised.

Habermas contrasts this concept, with its authoritarian tendencies, to the perspective of Wilhelm von Humboldt, who wishes to redeem the "unity in multiplicity" of the human community in linguistic and cultural participation and to transfer the subsuming of the multitude under a general rule, of the kind attributed by Kant to the individual power of visualisation and its capacity for synthesising, to societal processes. Humboldt makes linguistic communication the *principium individuationis*. By emphasising the multiplicity of impulses and powers whose "cultivation" the individual must pursue, he outlines a Leibniz-like duplication of the world through individual development. He hopes that individuation will not only produce increased mental interaction between single persons, but will also generate new forms of the humanity concepts and an expansion of "the ideal of humanity." He empowers speech as the means for achieving this, because it meets the need for reply, confirmation and individuation in equal measure; Habermas thus regards Humboldt as a pioneer for his own concept of communicative reason. He esteems him for having replaced a "constructivistic concept of synthesis […] with the concept of unforced agreement" (Habermas 2015). In his case, the purely particular perspective of Leibniz's individual monads is replaced by: "[…] the unrelinquished difference between the perspectives from which the participants in communication reach understanding with each other about the same thing. These speaker and hearer perspectives no longer converge at the focal point of a subjectivity centered in itself; they instead intersect at the focal point of language" (Habermas 2015).

Habermas's desire for content-rich individuation, to be realised through the communication of different perspectives and affect-free participation in better arguments, is aesthetically anticipated in German classical literature, such as J.W. von Goethe's drama *Iphigenie auf Tauris* (1779). Here, language-based negotiation triumphs, in formal terms also, over traditional conventions and violent rituals: the "primitive" bows to the power of the superior argument.

The wish of the Romantic author for social and symbolic dehierarchising and dissolving of literary and aesthetic genre boundaries—contrary to the Kantian hierarchy of faculties—explodes the classic reason-oriented notion of participation and replaces it with concepts of time-based individuality and desires for unconventional commonality building. The young Friedrich Schlegel (possibly echoing Spinoza) sees the world: "as the epitome of all individuals. […] The individual is a constant becoming, thus, as soon as the world is an individual, it is incomplete" (Schlegel 1800, p. 42). With a precociously modern understanding of temporality, he attributes processuality and non-concludability to single human beings and to the world in equal measure. Novalis immediately recognises the tendency towards resolution inherent in this understanding of the individual, expressing it in a brief formula (which admittedly would be better reversed) in *Das Allgemeine Brouillon (Notes for a Romantic Encyclopaedia)*: "The true dividual is also the true individual" (Novalis 1993, no. 952, p. 211). Whilst the early Romantics categorically reject the claim of the generality to dominion over the singular, accepting only the metamorphoses of the future in the artistic and in the societal realm alike, the epistemological/metaphysical figure of the individual synthesised on a higher level in nature or in the historical process of perfection of the spirit reappears with Schelling, and is made prominent by Hegel.

It was in his draft for a *System der Naturphilosophie* of 1799 that F.W.J. Schelling originally addressed the tension or contradiction stemming from understanding nature as a purely productive principle that makes for endless consummation where one observes individual concretions. His objection to the atomists is that individuals cannot be thought of as existing because nature includes a "compulsion to communication": "Therefore they have to be thought as self-cancelling, as *interpenetrating*" (Schelling 2001, p. 6). Interestingly, Schelling takes non-anthropomorphic entwinement processes and incoherent cohesions to be primary and autoconstitutive processes: "The most original product […] is the *primal fluid*—the absolute noncomposite, and for that reason the most absolute decomposite […]. Such a principle would entail the cancellation of all individuality—hence also of every *product*—in Nature. This is impossible" (6). Owing to the simultaneously observed reverse striving of nature

for a "general organism" and the "shaping" of individual products, Schelling diagnoses "Nature's struggle against everything individual" (6). Nature is contrary to the individual, it demands the absolute, and is constantly concerned with representing it. Schelling's intellectual solution: individuals are created by nature purely as a means to produce genera, the "purpose" of nature.

The unrestricted consummation of freedom demanded by the new Romantic consciousness of self is, for the Romantics, most congenially redeemed in art production and, pre-eminently, in poetic activity. Novalis ascribes organic individuality to the literary artwork itself. Every poem must be a living individual: "What an inexhaustible amount of materials for new individual combinations is lying about!" (Novalis 1997, p. 55) The human individual, on the other hand, he does not identify with an organic formation, as it is characterised by far more than the reductive tendency, "to combine to form one individual body" (75). Instead, the human being is connected to the whole universe and is co-figured by a variety of comprehensive—and also systematic—individuals and ultimately by the whole of nature:

> [I]ndividual life-process is determined by the universal life-process, the natural system of an individual is determined both by the other individual natural systems and by the higher, universal system—ultimately by the natural system of the universe […]. One can justifiably call the complete natural system of a perfect individual a function of every other perfect individual—and a function of the universe. (Novalis 2012, p. 76)

Schelling shows an affinity to Leibniz's doctrine of monads in that he also understands the development of the single entity as a constitution process of the whole universe, thus makings its individuation open-ended. Because it is endless, it necessarily remains uncompleted: a "constant becoming" and "fragment" (*HWP*, "Individuum/Individualität," p. 315): "Man is a microcosm; to the characteristic of the individual belongs the characteristic of the universe." This characteristic is an inevitable requirement for art, which is conceived of as a novel ("*Roman*" in German—hence "Romanticism"), that is endless and embraces all aesthetic genres.

The concept of the individual experienced a well-known philosophical and speculative culmination with G.W.F. Hegel, who explicates it as a subjective manifestation of a metaphysical value, as the self-unfolding of the absolute mind/spirit, and at the same time subsumes it in an overarching, teleological movement. "Individual" becomes a name for diverse historic/systematic concretions of this intellectual process on the path to its self-perfection. For the first time, the individual is understood as an intellectual manifestation determined by time and history, believed to realise itself, as "subject" in theses and antitheses, and to thus dynamise the conventional substance concept. Whilst Spinoza and Leibniz had understood it to be a self-subdividing and differentiated entity, the intellectual individual now realises itself through the splitting up of inner oppositions and their synthesis on a higher level, thus intensifying the increasing self-reflectivity of the individuating processes toward "absolute knowledge."

In the *Phänomenologie des Geistes (Phenomenology of Spirit*, also translated as *Phenomenology of Mind)* from 1807 (Hegel 1973), intended to represent the first part of the system of the sciences, Hegel relates the genesis of the spirit systematically, differentiating it, as is well known, into the spirit forms of consciousness, self-consciousness and reason. The programme of phenomenology laid out in the "Preface" is as follows: "The task of conducting the individual mind from its unscientific standpoint to that of science had to be taken in its general sense; we had to contemplate the formative development (Bildung) of the universal [or general] individual, of self-conscious spirit" (Hegel trans. Baillie 1910). Differing from substance-immanent individuation assumptions, Hegel declares each individual to be a particular formation of the absolute and universal "spirit," the "identity-in-difference" subject to historical time: "As to the relation between these two [the particular and general individual], every moment, as it gains concrete form and its own proper shape and appearance, finds a place in the life of the universal individual" (Hegel trans. Baillie 1910). The modern individuation principle formulated by Hegel is the "self-identity" of the spiritual entity, which realises a higher level of self-identity in a dialectical movement of self-differentiation by means of negation and transcending:

> In modern times […] an individual finds the abstract form ready made. In straining to grasp it and make it his own, he[3] rather strives to bring forward the inner meaning alone, without any process of mediation. […] Hence nowadays the task before us consists not so much in getting the individual clear of the stage of sensuous immediacy, and making him a substance that thinks and is grasped in terms of thought, but rather the very opposite: it consists in actualising the universal, and giving it spiritual vitality, by the process of breaking down and superseding fixed and determinate thoughts. (Hegel trans. Baillie 1910, §33)

The individual is conceived of as a dynamic process of differentiation of the spiritual, starting with the "simple concept" of it and passing through dialectical movements of "positing itself, or in mediating with its own self its transitions from one state or position to the opposite. As subject it is pure and simple negativity, and just on that account a process of splitting up what is simple and undifferentiated, a process of duplicating and setting factors in opposition, which [process] in turn is the negation of this indifferent diversity" (§18). Hegel transfers the classical Aristotelian matter problem of the *principium individuationis* in the figure of individuating perfection of the spiritual qualities, knowledge and science in time.

Hegel identifies human self-consciousness as the primary individuality, capable of lending the feeling of unity with self. Its development is described, for the first time, as a process mediated by others: "since *purpose* and *being-in-itself* have proven themselves to be the same as *being for others* and that *actuality* is come upon, truth no longer parts with certainty" (Hegel 2017, 394/p. 351). In spite of this double orientation, in spite of the constitutive division, self-consciousness is not only determined as "the essence and the purpose in and for itself," but actually as "the certainty of immediate reality itself, the permeation of *being-in-itself* and *being-for-itself*, of the universal and individuality" (394). He traces this becoming-identical of the particular and the universal in the single individuality which determines itself and integrates the concept of itself into its consciousness—this compulsive identification of the single and universal that permits no difference, no deviation to stand, has been persistently criticised throughout the history of philosophy, and this continues today. Hegel describes the emergence of individuality as the results of

the insight that the oppositions can be synthesised on a higher level and that the worldly exterior are aspects of the same universal: that "*the way of the world* is not as wicked as it seemed to be for its actuality is the actuality of the universal" (391/p. 348). Therefore there is no need of the "sacrifice" of individuality, because even if individuality is only "the *actualization* of what exists-in-itself" (391/p. 348f.), then it is, as such, no contradiction to the world, since "*the way of the world* as opposed to the consciousness of what exists-in-itself, its *being-for-itself*" is revealed as "just a point of view […]. The individuality of the way of the world may well think its acts merely *for itself* […]; its activity is at the same time a *universal* activity" (392/p. 349). In the universal spirit activity, both appear able to harmonise and to synthesise each other on a higher level. And yet Hegel distinguishes different stages of individuation, with "the spiritual realm of animals" (397/p. 353), the "first real" individuality, which presents as an "originary determinate nature" (398), is supposed to consummate itself in "pure absorption of its shape" (396/p. 352), in pure reciprocity with itself, as a pure translation of pre-existing reality into visibility. This animal individuality is said to be determined not through doing, but through the "character," the "*particular ability*" (401/p. 356).

Critical for further development of the spiritual angle is the emergence from this closed circle and the movement from "in-itself" to "for-itself," said to be enabled through action: "It is only because what is supposed to be *for it* is what consciousness is *in itself* that consciousness must act" (401/p. 356). A difficulty exists: the purpose of the individual's action—which he can only, in fact, recognise through action—must first be known to him. Hegel locates this pre-purpose in inborn talent and interest. When the human consciousness then expresses its action in a "work," it has the opportunity to ascend to a general consciousness: "The work is the reality which consciousness gives itself; it is that in which the individual is for himself what he is *in itself*, and in such a way that the consciousness *for which* the individual comes to be in the work is not a particular consciousness but rather *universal* consciousness" (404/p. 361). The work mediates special and general consciousness, insofar as the reality of the work is also experienced by the individual as external, because it exists for others, and thus is experienced as "alien actuality" (404/p. 362): "The work *is*, i.e., it exists for other individualities" (404). It is thanks to

the work that "the opposition of being and doing" arises for the individual consciousness. As he steps back from his work, he recognises the distinction between himself and the "determinate consciousness" of the work. Thus, the single consciousness transforms into that desired "universal consciousness" (404) that transcends his own work, and "into the space of being which is utterly devoid of determinatedness" (404/p. 361).

The next stage of human individuation is thus equated with the becoming identical of being and doing in "true work"; only through this can both be experienced as "the same" and as enduring. Hegel gives this true work the name "*Sache*," or "thing" (409/p. 366): "It is *the thing that matters*, which unreservedly affirms itself and is experienced as what persists, independently of the *contingency of the individual's activity*" (408). The outstanding aspect of the thing is now that it affords a higher form of synthesis, that it "is opposed to these moments only inasmuch they are supposed to be valid in isolation, but it is essentially their unity as the permeation of actuality and individuality"(409). As the human individual is supposed to realise itself perfectly in the *thing* "which expresses the spiritual essentiality" and in which "all these moments, as valid on their own, are sublated and are thus valid merely as universal moments" (409), in it, it experiences its non-difference from reality and becomes part of the universal. Here, its consciousness attains a true concept of itself thanks to "an object born out of self-consciousness as its own object" (409); self-consciousness has then "arrived at a consciousness of its substance" (410/p. 367).

The thing, insofar as it is realised in the activity of the human individual as means and purpose, is nonetheless designated by Hegel as an "abstract universal" (410). He equates it with the essence of the human species: not only is it attributable to the single individual, but it also collects various subjects within itself and "is to be found in all these moments as its *species*" (410/p. 368). Thus, innumerable individuals are supposed to be united in the *thing* or *species*, and experience becoming-identical with reality. The thing that matters has been "opened up" (417/p. 375) when the individuals act for others, that is, when their actions for themselves become action for others. In the non-separateness of the motivation, the individual recognises the *thing* as a universal essence, "whose

being is the activity of singular individuals and of all individuals, and whose activity exists immediately *for others*, that is, it is a *thing that matters* and that it is only that kind of thing insofar as it is the *activity of each and all*, the essence that is the essence of all essence, that is *spiritual essence*" (417/p. 375). The actions of all single individuals are supposed to flow into the spiritual *thing* as long as they are actions for others—this maximum synthesis of individuals, whose actions result in the constitution of a spiritual commonality, will recur in Hegel's thoughts on the state.

My objection is that, here, Hegel sketches supposed individual operations as entirely a dividuation process of the many in a unified activity: the single entities come together in a generality. The *Sache* itself also now loses its "lifeless, abstract universality" (417). Since within it the specific individuality is supposed to become spirituality identical to all others, I would rather refer to ways of participation, and describe the single participants as dividuations.[4] Here, the term "individual" reveals its crux, insofar as the *general thing* in which the single consciousness recognises its reality and the reality of others becomes conceivable only as a forced union, violently identified as such. Although the movement outlined here is intended as a profile of individuations becoming more complex, a difference that cannot be cancelled or disposed of is precisely what it permits no aspects of, and it admits no time differences that cannot be subsumed into the teleological sequence, or deviating spiritual individuations—for which reason, Hegel's system has also been described as totalitarian. It absorbs each specific in-dividual, along with the *thing* pertaining to the many, into an absolutised system of spiritual synthesis.

The *Phenomenology of Spirit* asserts that the consciousness of the self together with the higher spiritual stages of reason and spirit ultimately culminate in absolute knowledge: the last shape of spirit is "spirit knowing itself in the shape of spirit, that is, it is *comprehending conceptual knowledge*" (798/p. 724) or science. Hegel also designates this as an open-ended becoming: as he says in summary, this is because the spirit is in itself the movement that is recognition—the transformation of every in-itself into a for-itself, the substance into the subject, the object of the consciousness into the object of the self-consciousness, which, for him, represents the highest stage of absolute knowledge or science. And yet, in

spite of emphasising that the spiritual process cannot be concluded, Hegel makes its concretions subject to a goal of spiritual self-identity perfecting itself; today, we recognise this as the Western/Northern universal logic that, now in an economic form, wishes to subordinate the world to a new form of self-identity. In conclusion, we might thus criticise Hegel (as Habermas does) because:

> For Hegel, the individual totalities that are themselves already caught up in formative processes must also be joined together […] to form a supertotality. But this absolute spirit, which appears in the singular, can acquire the individuality that it claims for itself only at the expense of the individual figures of spirit encased in it—just as the world spirit contests the individuality of worldhistorical individuals. (Habermas 2015)

With Habermas, we observe a theft and de-individuation process which sets this in opposition to the non-identity of the communication community of speaking individuals. Going further, it can once more be emphasised that it is not only linguistically that we depend on others and thus are alienated from the beginning. In fact, our multiple entwinings and intergrowings with bio- and socio-technological participations have made us multiply subdivided and alienated, so that no such term as 'individual' in the strict sense can any longer be maintained today, in non-identical communication societies also. The inevitable participation of the many in spiritual and material faculties and autopoietic processes more reasonably affirmed by Hegel corresponds more intelligibly with the term 'dividuation.'

In his *Lectures on Fine Art II* (delivered between 1820 and 1829: cf. Hegel 1975), Hegel systematises the individuations of art in cultural history and its material/spiritual concretions of the absolute. He evaluates their various manifestations according to their "spiritual content" and their "adequate material, or the corresponding form" (II, 624), arranging this, also, in a systematic historical sequence and making it subordinate to an assumed teleological movement towards a realisation of the spirit in art. In opposition to the Egyptian pyramids, historically earlier artworks whose materiality he understands as the "inherently non-spiritual, i.e. heavy matter shapeable only according to the laws of gravity," whilst the

higher art of Greek sculpture has the "spiritual individuality" for "its principle and content:" it finds "its expression in the bodily appearance immanent in the spirit" (II, 624). While the sculpture "still lays hold on heavy matter in its spatial entirety, yet […] without shaping it […] in respect of its visibility," it does not "degrade it to being a mere show" (II, 625) and particularise it: "The form determined by the content itself is here the real life of the spirit, the human form" (II, 625). In the arts realm, the designation "individuality" remains reserved for this reproduction of the spiritual as a human form.

In the *Lectures on the history of philosophy, 1825–1826* (Hegel 1825–1826; vol. I, 2009; vol. II 2006), Hegel constructed a history of the development of the human individual, which he treats as beginning afresh with the formation of "individualities" in the Greek world: "In the Oriental character, where the element of subjectivity has not yet emerged, the representations are not individualized; instead they have the character of general representations. […] Because freedom lacking individuality is not stable" (I, 103f.). In the Greek and German spirit, in contrast, when the subject "knows itself to be free, it is also supposed to be maintained, not simply to annul itself. […] The inherently higher standpoint of Greek individual freedom […] intensifies the work of thought in validating its universality" (I, 105). Hegel believes that, in oriental thinking, the individual is still "submerged" in the substance, whilst in Greek thinking: "it breaks loose and is for itself" (I, 105). For oriental thinkers, "the content (of the individual) has been grasped only negatively" (II, 11), but the Greek individual "finds itself to be for itself abstractly, but also absolutely. The freedom of the subject is the principle of Greek philosophy—the 'I' that knows itself to be infinite, in which the universal is specified as present" (II, 11). As can be seen, Hegel identifies the Greek person with the universal and eternal individual and with free spirit and will and its concretions in anthropomorphic sculpture, regardless of social and gender characteristics. In the Roman Empire, by contrast, which Hegel calls the empire of "abstract generality," the individuals are said to be sacrificed to the purpose of the State. The "general" would subjugate the individuals and produce "arbitrary" individuals and emperors. The suffering under despotism would provoke an interiorising of the spirit in which the singular individual would eventually "purify" itself into general subjectivity.

This would give rise to the empire of self-reflective knowledge, the "real spirit," the Germanic Reich which is supposed to start with the reconciliation effectuated by Christianity. Out of this reconciliation of spirituality and barbarism, of Church and State, would emerge the higher spirituality of reason. Hegel concluded that realising freedom in its concept and its concrete truth would be its purpose, the final aim of world history.

During the nineteenth century, the sociologist Georg Simmel sees the assumption on norm-setting and creative activities of particular individuals implicit in Kant's aesthetic genius conception and Hegel's world-spirit idea being realised, albeit primarily in the economic sphere. On the basis of Romanticism's drive for individualisation, liberalism as a socio-economic model had also established itself in Germany, translating the slogans of freedom and equality into the principle of maximally autonomous action and, ultimately, into free economic competition. Thus, he sees the idealistic call for all-round development of human faculties and for their free play with regard to artistic beauty translated into the economic principle of division of labour: "The metaphysical foundation of the division of labour was discovered with the individualism of difference, with the deepening of individuality to the point of the individual's incomparability, to which he is "called "both in his nature and in his achievement" (Simmel 1950, p. 83). And yet even the division of labour is once again associated with the hope, expressed by Emile Durkheim in particular, that the special qualification of the individual person in mutual contributory work will lead to the realising of a hitherto non-existent social love.

From this basis, Schopenhauer reaches a conclusion diametrically opposed to that of Hegel: that the individual is a mere appearance or illusion, and that one must see through it to that which lies at its root, the impersonal will or "vital force." He sees individual concretions not as serving a historical purpose but as constructs of pure impulse whose self-serving struggles are grossly mismatched to the state of general suffering and thus bring about "intellectual suffering." On this basis, he declares individuation to be a malformation of humanity and to be an ethos not adequate to suffering, whereas death represents a possible "liberation from the one-sidedness of individuality" (II, 41, 596, Schopenhauer 1977). He who recognises the suffering of others in addition to his own and sympathises with

it must be "just" and tend to abstain from his own individual striving and turn to practices that reduce suffering and to charitable actions. He criticises Enlightenment philosophy for being short-sighted in this respect, because its ethical requirements and aesthetics prefer to use nuclear family structures as their reference point and ultimately misunderstand humanity's nature. The insightful pessimist, on the other hand, includes relationships worldwide in his perspective. Thanks to his insight into the restricted effectiveness of the *principium individuationis*, he thus feels solidarity with humanity as a whole. Schopenhauer recommends that philosophers adopt an ethical de-individuation programme.

Anthropo-Social Individuals

> But the human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations. (Theses on Feuerbach 6, Marx and Engels, trans. W. Lough, 1969)

In order to place the human individual as theorised by Hegel, which had been stood on its head, back on its famous feet, Karl Marx and Friedrich Engels, in *Die Deutsche Ideologie*, written in 1845/46, begin by emphasising that they are starting from "real individuals" (Marx and Engels 1976, p. 31), as opposed to idealistic philosophy. "The premises from which we begin are not arbitrary ones, not dogmas, but real premises […]. They are the real individuals, their activity and the material conditions of their life, both those which they find already existing and those produced by their activity" (31)/ However, with regard to this, they neglect "the actual physical nature of man […], the natural conditions in which man finds himself: geological, orohydrographical, climatic and so on" (31). They remain indebted to the anthropology of German idealism insofar as they initially focus on "definite individuals" (35). and understand them as agents of history whose consciousness, the product of "social and political relations" (35), is understood only as "their" consciousness. What is remarkable is that, at this early stage, they are already presenting us with the ambiguity of the human subjectivation process: as active "producers of their conceptions, ideas, etc." (36). Individuals are

at the same time passive and "conditioned by a definite development of their productive forces and of the intercourse corresponding to these" (36)—simultaneously subjects of empowerment and disempowerment. The authors depart from conventional 'individual' concepts by emphasising the dependence of human individuals on one another, observing that:

> [M]en who daily re-create their own life, begin to make other men, to propagate their kind […]. The production of life, both of one's own labour and of fresh life in procreation, now appears as a twofold relation: on the one hand as natural, on the other as a social relation—social in the sense that it denotes the co-operation of several individuals. […] This mode of co-operation is itself a "productive force". (43)

Unlike Hegel, they stress that consciousness is always a "social product" (44): "it is man's consciousness of the necessity of associating with the individuals around him" (44). When division of labour becomes advanced, "consciousness can really flatter itself that it is something other than consciousness of existing practice, that it really represents something without representing something real; from now on consciousness is in a position to emancipate itself from the world and to proceed to the formation of 'pure' theory, philosophy […]" (45).

The authors believe that the dynamic of individual connections depends upon increased needs, increased productivity and an increase of population. The assumption of isolated, purely autonomous individuals appears to them to be pure ideology. From the perspective of real existential conditions, they privilege an anthropological model correlated with division of labour and production of commodities, in which the individuals are understood to be dependent upon "what" and "how" they produce. The authors' exclusive focus on the production paradigm has been repeatedly criticised for paying too little attention to linguistic and culturally occasioned subjectivation processes and to gendered division of labour. They do, however, mention that women's and children's labour is to be seen as "latent slavery" (46).

In their characterisation of the dependence of individuation upon labour division, intercourse and production power development, Marx and Engels retraced the various historical stages of labour subdivision and

the distribution of the individuals, who are primarily registered quantitatively: they state that the subdivision of labour into industrial/commercial and agricultural activity was followed by the separation of industrial from commercial work, which was in turn dissolved into various vocational branches. They see the specific relationships between single persons proceeding from these subdivisions of labour and of the population relative to the material, the instrument, and the product of the work. Production power, as Marx elucidates it in *Das Kapital*, is composed of more than individual factors: "the average amount of skill of the workmen, the state of science, and the degree of its practical application, the social organisation of production, the extent and capabilities of the means of production, and by physical condition" (Marx 1986). The state and interaction of production forces determine the participation opportunities for single persons in any economic/political system. Unlike Durkheim, Marx and Engels do not see capitalist division of labour as a love relationship made part of society, but as a contradiction between the single person or family and the "common interest" (46) of all individuals, insofar as single persons pursue only their specific interests, seeing through "general interest" as an illusory form of commonality. They concede that this transforms particular interest into its opposite: "Just because individuals seek *only* their particular interest, which for them does not coincide with the common interest, the latter is asserted as an interest 'alien' to them, and independent from them, as in its turn a particular and distinctive 'general' interest" (47)/ Cut off in this way both from particular interest and common interest, individuals cannot appreciate "social power" as something brought forth by themselves: "man's own deed becomes an alien power opposed to him, which enslaves him instead of being controlled by him" (47). Under capitalist conditions, they have no opportunity to perceive social power as anything other than something imposed on them.

Above all, however, the passivising and subjection of single persons result from the separation of the production forces from those persons, so that they "exist split up and in opposition to one another, whilst […] these forces are only real forces in the intercourse and association of these individuals" (86). The independent entity, the "totality of productive forces which are for the individuals themselves no longer the forces of the

individuals" (86) then takes precisely that "object" form in which Hegel saw the human genus realising itself, but with the difference that the forces are now private property and only belong to individuals who are private property owners. The authors outline a splitting of society into production forces on the one hand and a majority of individuals robbed of their own power on the other, with resulting far-reaching social divisions that they primarily ascribe to the division of labour. "Only within the community has each individual the means of cultivating his gifts in all directions" (78). In the "illusory community" of the bourgeois state, on the other hand, which has assumed an independent existence in relation to them, the individuals lose their capacities; they are still described by Marx and Engels as individuals, but as "abstract" individuals (87), although their undividedness appears to be disproved by the non-reversible theft of their abilities. The claim was that, in the face of this loss of capabilities, a counter-movement would initiate that would see them replaced by non-individual agents—according to the authors, single persons must set aside their inborn self-interest simply for the sake of survival, to connect with each other and reclaim their production forces, with this act of reclaiming in itself defined as the development of the individual abilities corresponding to material production instruments. And yet—as is also emphasised by Balibar—what are these but transindividual or rather dividual abilities? "Not only does the work 'socialise' itself historically, or *becomes* transindividual, but it has of its nature *always been* so, insofar as work, even in its 'most primitive' forms, does not exist without cooperation" (Balibar 2013, p. 149f). The new abilities are supposed to take on a "universal" character and combine into a "totality" of abilities in the individuals, who now, tellingly, are accorded a new collective subject: "Only the proletarians who are completely shut off from self-activity are in a position to achieve a complete and no longer restricted self-activity, which consists in the appropriation of a totality of productive forces and in the development of a totality of capacities entailed by this" (87). Here, the authors are devising fantasy agents, who, following the abolition of private property, become "complete individuals" (88) with total capabilities, who no longer belong to any specific class, insofar as the proletariat is considered to be no longer a class because within it the difference between self-interest and "united individuals" (88) is obliterated.

The first volume of *Das Kapital*, which wishes to see not only the negation of individual private property but also the "negation of the negation" of capitalist production arising as a consequence of the proletarian "expropriation of the expropriators," contains the curious statement that individual property will subsequently reinstate itself based on the attainments of the capitalist era. Balibar reads this statement as an effort to revive Locke's idea of "property in [one's] own person," but now for the benefit of a "social or 'generic' subject, whose historic form […] is the proletariat" (Balibar 2013, p. 148). He does mention an objection: the desired appropriation of a part of society through the "personal work" (150) of the individual is impossible in the first place, since work is invariably socialised and "transindividual" (149) or dividual in terms of divided labour. And yet Balibar himself employs the term "individuals" to designate those who realise themselves as property owners in a "social relationship."

Marx's *Fundamentals of Political Economy Criticism* of 1857/58, part of the "Economic Manuscripts," outlines an agency that is definitively no longer individual. He begins by criticising eighteenth-century politico-economic theorists for understanding the individual as a natural and not a historically developed entity, correctly asserting that "individual" only came to mean "single person" in the eighteenth century, with the various forms of social context considered mere means for that entity's private purposes and interests. He also criticises the way the pre-competition society declares the single person ruler over nature: "the individual appears detached from the natural bonds etc. which in earlier historical periods make him the accessory of a definite and limited human conglomerate" (83).[5] Production by an isolated individual outside society seems "as much of an absurdity as is the development of language without living *together* and talking to each other" (84). Here, Marx once again broaches the question of the social agent: should an analysis begin with "population" as the "real and concrete" category, "which is the foundation and the subject of the entire social act of production" (100)? He rejects this, arguing that the population is already an "abstraction," and declares "capital" to be the sole analytical category without precondition, and that it should thus be taken as both starting point and endpoint. The capitalist economy is thus no longer directed by human agents, but by the move-

ment of capital itself, or by the fact that "by virtue of its property as the general commodity in relation to all others, as the embodiment of the exchange value of the other commodities, money at the same time becomes the realized and always realizable form of capital" (146). It individualises and fetishises itself as a special commodity—comparable to the bourgeois individual. Under the rule of the exchange value, human individuation is transformed into de-individuation:

> confronting the individuals, not as their relation to one another, but as their subordination to relations which subsist independently of them and which arise out of collisions between mutually indifferent individuals. The general exchange of activities and products, which has become a vital condition for each individual—their mutual interconnection—here appears as something alien to them, autonomous, as a thing. (157)

Under capitalist conditions, the Hegelian "thing" is transformed into something independent from individuals, which is *not* the result of their interactions, but subordinates them: "Individuals are subsumed under social production; social production exists outside them as their fate" (158). Individuals are now "ruled by abstractions"; Marx summarises this finding as "objective dependency relations" (164) of the human individual. Whilst, under the rule of utility value, single persons could individuate themselves through appropriation of wealth, in an exchange value regime, they de-individuate themselves, with money individualised in their place:

> Money […] as the individual of general wealth, as something emerging from circulation and representing a general quality, as a merely social result, does not at all presuppose an individual relation to its owner; possession of it is not the development of any particular essential aspect of his individuality; but rather possession of what lacks individuality […]. Its relation to the individual thus appears as a purely accidental one; while this relation to a thing having no connection with his individuality gives him, at the same time, by virtue of the thing's character, a general power over society. (222)

Notwithstanding this, Marx associates the individualisation that has transitioned to money with hopes of progress, since economic exchange also harbours the opportunity for a certain equality between the partners

in the exchange and "freedom." His comments on the character of the commodity in *Das Kapital* once again emphasise how little the labour forces (which continue to be called individual) can still be understood as such within commodifying production relationships:

> The total labour power of society […] counts here as one homogeneous mass of human labour power, composed though it be of innumerable individual units. Each of these units is the same as any other, so far as it has the character of the average labour power of society, and takes effect as such. (Marx and Engels 1887 (1967); 28)

The ascribing of equality contradicts individuality of the "units," and this later leads to "human power/labour" being spoken of only as an abstract and general unit with regard to value creation: "The value of a commodity represents human labour in the abstract, the expenditure of human labour in general" (54). Here, Marx emphasises the purely quantitative registering of the labour force in capitalist production and even indicates that the individual deviations of the labour force balance themselves out and vanish as soon as one takes a larger number of workers together, treating them as statistical values and calculating accordingly. Relative to Marx's era, the relationship between potential individuation through appropriation (including of one's own abilities) and de-individuation through digital calculation, bio-political administration and commoditisation has become still more intimate. I thus recommend that we speak in terms of differing dividuations of participation.

The two-sided nature of Friedrich Nietzsche's relationship to the individual and to individuation—which anticipates the symptomatic ambivalence of modernism to the single person and its isolated status—is well-known. On the one hand, he argues for the transcending of personal isolation and for its elimination from art (interestingly, he coins the term "dividuum" or "dividual"); on the other hand, he opposes Christian/democratic de-individuation and historicises the emergence of specific modes of subjectivation from a cultural/historical perspective. His early text *Die Geburt der Tragödie* (Nietzsche 1967/1977) or *The Birth of Tragedy* (1871) contains his well-known identification of the diametrically opposed Apollonian and Dionysiac principles as necessary and complimentary

constituents of artworks. Whilst the Apollonian, as the "*principium individuationis*," is supposed to be responsible for maintaining the individual's boundaries and its "formation," for moderation in the Hellenic spirit and also in the individuation of the artwork, the Dionysiac operates oppositionally: "as artistic powers which erupt from nature itself without the mediation of any human artist," "as intoxicated reality, which has just as little regard for the individual, even seeking to annihilate" (I, 2) him. From the reception-aesthetics perspective, the young Nietzsche affirms a "redemption" of the (spectator) individual "by imparting a mystical sense of oneness" (I, 2). Like his teacher Schopenhauer, he presumes that individuation represents suffering through splitting-off and isolation, whilst "the genuinely Dionysiac suffering is like a transformation into air, water, earth, and fire, so that we are to regard the state of individuation as the source and primal cause of all suffering, as something inherently to be rejected" (I, 10). However, he also argues for de-individuation from a production-aesthetics perspective, since "the willing individual in pursuit of his own, egotistical goals can only be considered the opponent of art and not its origin" (I, 5). Above all, however, we as humans should understand ourselves as artworks, since "we are already images and artistic projections for the true creator of art" and since "our highest dignity lies in our significance as works of art—for only as an aesthetic phenomenon is existence and the world eternally justified" (I, 5). Nietzsche's pioneering and much-discussed statement calls for human existence itself to be understood as an artwork, because this is the only way to achieve "the fundamental recognition that everything which exists is a unity; […] and art as the joyous hope that the spell of individuation can be broken, a premonition of unity restored" (I, 10).

His "Human, All Too Human, I, 57" collection of aphorisms contains the term "dividual" (2, I): it represents an attempt by Nietzsche to characterise the human tendency, in moral action, to realise only a part of one's self, such as a specific desire, at the expense of other desires, to subdivide one's individual totality and to sacrifice one part in favour of another part. He had observed that in moral action single persons act with a part, rather than all, of their capacity; thus, he states that, in moral matters, the human being does not act as an individual. The philosopher Volker Gerhardt, who advocates for a classical/emphatic concept of the

individual, criticises the term "dividual" as too narrow, since in every individualisation process only partial capacities are called upon and "self-division" is a part of every process that we associate with the individualisation of humans (Gerhardt 2000). I, however, believe that Nietzsche's terminology meaningfully indicates that our actions—and not only our moral actions—can be analysed in terms of which capacity we apply to participation in which activity at the expense of which other activity, thus inevitably realising ourselves only partially. Extending Nietzsche's thoughts, we can say of the present day that our allocation of attention, based on our simultaneous connections to various technological media and channels of articulation, frequently takes place in an impulsive, purely effective way, and thus in a subdivided mode of participation. Far distant from the level of moral action, our ever more perfected multitasking also makes us 'advanced' dividuals.

From an epistemological perspective, Nietzsche shows himself to be a nominalist who rejects concept terms in general because they do not reproduce "the unique, utterly individualized, primary experience to which they (the concepts) owe their existence, but because at the same time they must fit countless other, more or less similar cases, i.e. cases which, strictly speaking, are never equivalent" (Nietzsche 1999, p. 145). He believes that not only concepts but also forms are derived "by dropping these individual differences arbitrarily, by forgetting those features which differentiate one thing from another" (145). Nature thus has no genera, but only single individuals. Later, in "Morgenröte II," he shows contempt for Christian morality's and modern democracy's demands for equality, because—unlike Dionysiac ritual—they reduce, make uniform, and adapt the individual to general requirements. He sees the Christian injunction to deny the ego as a form of transformation that should be rejected because it weakens and negates the individual, with sympathy and social empathy cooperating to further this purpose. As a countermovement to this "dwarfing and levelling of the European man." which he actually considers "*our* greatest peril, for it is this outlook which fatigues […], the destiny of Europe lies even in this—that in losing the fear of man, we have also lost the hope in man" (Nietzsche 2012, I,13), he wishes for the reappearance of:

> the *sovereign individual*, that resembles only himself, that has got loose from the morality of custom, the autonomous "supermoral" individual […], and we find in him a proud consciousness (vibrating in every fibre), of *what* has been at last achieved and become vivified in him, a genuine consciousness of power and freedom, a feeling of human perfection in general. (Nietzsche 2012, II, 2)

Even before these individual-critical or individual-problematising philosophies and economic/socio-political theories, the seventeenth century saw the single person advance to the object of reflection in texts on the politics of the state in Scotland and England. It is initially advocated in the name of natural law and freedom, and later, as with Nietzsche, as a counter-balance against the imposing of uniformity and "reducing" of the single person in a mass society. C.B. Macpherson tries to show that English political theories of the seventeenth to the nineteenth century are suited to a commonality that he characterises as the unity-fostering premise of "possessive individualism" (Macpherson 1962), with the English word "property" not distinguishing (like the German words) between property and possession. According to Macpherson, the liberal/democratic theories of John Locke, Adam Smith and John Stuart Mill all result from this premise, as do their social consequences, and this continues in the present day. Mill himself criticised Jeremy Bentham's Utilitarianism over something that is still a fundamental and the primary assertive feature of political individualism today: "the weakness of liberal individualism […] identified with Bentham's narrowly selfish, narrowly rationalist, version of it. The Benthamite assumption that man in his political relations was and should be treated as a calculator of his own interests […] has been a perversion of the fundamental liberal insights of an earlier tradition" (2) and would be responsible for an understanding of the individual oriented on profit-seeking, and the socio-economic splitting of society. Macpherson sees this development—extending from the English Civil War era to the institution of the constitutional monarchy—as driven by principles based on the theological and natural law justifications of nature and the rights of the single person. Macpherson regards it as a fateful aspect of these theories that, according to their religious/Presbyterian or natural-law doctrines, the right to property is also founded

on one's own capacities, and is ineluctably tied to the single person, who, as property owner, is the sole entity entitled to a right to a social voice, for the securing of his property. In 2013, Etienne Balibar once more looked into this question of whether the term "individualism," as first coined in the early nineteenth century, characterises the organisational principle of a whole society under specific historical conditions or merely "characterises a *determinate region* of human behaviour that may manifest as more or less hegemonial or autonomous, but has never been capable of embracing the totality of modes of behaviour" (Balibar 2013, p. 123). Like Macpherson, he sees the figure of the isolated single person outlined for the first time in Thomas Hobbes's 1651 treatise on state politics *Leviathan*, insofar as this text dispenses with the traditional concepts of society, justice, and natural law, and derives political rights and duties from the interests and wills of the associated individuals. The first part of Hobbes text "Of Man" (comprising four parts in total) focuses on the single person primarily as representative of the genus; he is thus described as "man" rather than "individual." The quests for self-preservation and pleasure are famously credited as fundamental driving forces; no quality other than fear of a violent death diverts man to the founding of a communal existence. Thus, Hobbes believes in a psychological egoism that appears to be the product of nature and cannot be overcome by the will. However, since human beings are all equal in their fear, and all equally entitled to the means of self-preservation, the "war of all against all" appears unavoidable. As an antidote against this kind of egoistic fragmentation of the communal existence, Hobbes outlines the unifying model of the *Leviathan*: "The Greatest of human Powers is what is compounded of the Powers of most men, united by consent, in one person, Naturall, or Civil, that has the use of all Powers depending on his will" (Hobbes 1991, p. 62). To this theorem of an unaccountable multitude united in a single person as sovereign, Hobbes adds a thought that recurs in Rousseau's conception of the sovereign general will: nothing that the sovereign power does to a subject can be described as injustice, as the subject is always also the author of the sovereign will.

Thus, Hobbes sees the freedom of the individual as existing solely in the framework conceded by the sovereign: in the elective freedom to buy, to sell "and otherwise contract with one another; to choose […] their

own diet, their own trade of life and institute their children as they themselves think fit & the like" (148). In contradiction to this, Macpherson emphasises the general state of war resulting from this elective freedom, since the single person, within the "possessive market society" (Macpherson 1962), the sole economic model declared to be valid, must necessarily engage in conflict with his fellow man. Unconsciously, Hobbes translates the absorption of the individual by the social market orientation into rational justifications that affirm it. In order to survive in the general battle of all against all (which anticipates the economic competition principle), the single persons are forced to sacrifice their natural rights and to transfer all power to the sovereign, so that they are left only with the private man's freedom: to decide on consumption, economy, the raising of children. This understanding of sovereignty, together with a contract model that binds the single person to the communal existence as an atomic entity, reduces it to a market and family-related individuality. Balibar makes a justified criticism of Macpherson's epistemological model: Macpherson attributes to Hobbes the thesis that man is the "proprietor of his own person" (Macpherson 1962, p. 269), when in fact Hobbes wishes to prevent "pluralism of affiliations and authorities to which every individual can subscribe as they wish" (Balibar 2013, p. 131).

In his 1690 philosophical treatise on the state *Two treatises of government* (Locke 1798), John Locke formulates the first liberal-democratic theory of the state, in which political power concerns itself exclusively with the regulation and preservation of property of every citizen of the state through laws and punishment: the aim of uniting human beings in the entity called a state "is the *preservation of their property*" (Locke 1798, Second Treatise, § 124, p. 110). The assembly of the state's citizens—the property owners—also determines the form of the state through their amalgamation. Macpherson calls the possessive individualism theorised here the root of all evil, as it also includes the notion that the single person is proprietor of his own person and his abilities. After all, this relocates the relationship to material property back into the nature of the person, as Macpherson sees it. Whilst the individual is declared to be free of dependence on others, this freedom consists only of active possession of the own person, and is a function of property: "The market makes men free. It requires for its effective operation that all men be free and rational;

yet the independent rational decisions of each man produce at every moment a configuration of forces which confronts each man compulsively. All men's choices determine, and each man's choice is determined by the market" (Macpherson 1962, p. 106). Balibar's interrogation extends in particular to this "*constituting property*" for individuality. (134) For the abilities of the single person, that person's work and the result of their work, its valuation and exchange, appear only as partial factors of that person's property, so that the "individual" must "identify" with this property, according to Balibar, "which it *is* […] that is, [must] recognise its own identity in its own movement of appropriation and acquisition". Balibar recognises a significant "*decoupling of power from origin*," of genealogical ties: property in the form of "work [which] relates to itself" (136) is separated from the idea of heritage and conventional social affiliations. "*The Lockeian individual derives its authority only from itself*." from its work and from its potentiality for appropriation. Balibar thus reads Locke's formula of "property in one's person" as the assumption of an ability that "is absorbed *totally and completely in its actions*, insofar as these tend toward a production goal. (138). By means of privatising his naturally given ability and in exchange for his products, this individual ultimately works toward the "socialisation" of humanity.

However, Locke permits only a restricted amount of material appropriation for each, "where there is enough, and as good, left as common for others" (§ 27, p. 27). However, since the money brought into circulation suspends the natural boundaries of rightful appropriation, the assumption of natural rights is intruded upon by a right of natural increase of goods, as Macpherson complains: "Locke's constitutionalism is essentially a defence of the supremacy of property—and not that of the yeoman only, but more especially that of the men of substance to whom the security of unlimited accumulation was of first importance" (Macpherson 1962, p. 257). Thus, he sees this kind of anthropologically grounded tendency toward wealth accumulation with the expected consequence that a few realise their tendency towards accumulation at the cost of many already in evidence here. He is thus unsurprised that Locke distinguishes between two classes of rationality, and accords middle-class citizens more rationality and rights than workers. Only those who possess property in terms of land can become full state citizens, since only they

have an interest in the state as guarantor of this property. Locke forbids the state to interfere with the property rights of the single person; if it does so, it loses its legitimacy, as it was created by the citizens only for purposes of securing property. It depends upon their consent: thus, the property-owners must be in the majority.

Inspired by an optimistic Scottish philosophy that had preached "natural reason" and "natural morals" as historically provable fact for half a century, Adam Smith, the father of liberal economy, opens his 1759 text *Theory of moral sentiments* (Smith 1907) with a chapter entitled "Of Sympathy," in which he emphasises the natural sympathy of human beings with their fellows, which causes them to encounter their "fellow-creature" whom they see to be in need with "pity" and "compassion." Here, Hobbes's assumption of a natural struggle for self-preservation is reinterpreted as habitual sympathy and a desire to preserve the human species: "Man has a natural love for society and desires that the union of mankind should be preserved for its own sake […]" (127). Trusting in the well-arranged character of nature, Smith sees humans, plants and animals alike as governed only by the purpose of, "advancing the two great purposes of nature, the support of the individual and the propagation of the species" (126)/ Precisely because he shares a common nature with everyone, the "individual" (possibly so named for the first time in the English-speaking world?) is permitted determination of self and property, whilst at the same time he is obligated to fellow-feeling with others: "Our sensibility to the feelings of others, so far from being inconsistent with the manhood of self-command, is the very principle upon which that manhood is founded" (213). Egoism, the unalloyed quest for profit, and harming others is not permissible: "One individual must never prefer himself so much even to any other individual as to hurt or injure that other in order to benefit himself […]" (195).

In *The Wealth of Nations*, 1776, Smith explicitly endorses the striving of the individual for increased power and property, as it also increases the wealth of the whole nation. The individual's quest for success is declared a beneficial virtue, and self-interest appears as unproblematic, since the individual activities unintentionally benefit the whole of society:

> As every individual, therefore, endeavours as much as he can both to employ his capital in the support of domestic industry, […], every individual necessarily labours to render the annual revenue of the society as

> great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other eases, led by an invisible hand to promote an end which was no part of his intention. (Smith 1976, p. 456f)

The idea is that the quest for one's own advantage unintentionally creates advantages for wider society: the public interest will result, as if incidentally, from personal interest, with "interest" also representing an allusion to economic gain. Smith once again affirms his individuality credo, as he sees self-interest as the motor for the best of all societies: "By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it." It is not only in the eyes of David Graeber that the civil/liberal economy consolidated itself in this ideology. The well-known "invisible hand" assumption is today translated into the market self-regulation formula, which, from a liberal perspective in particular, is supposed to largely release the single person from duties relating to wider society thanks to the expected fruits of their self-interest and their economic advantage; although in recent times there has been growing scepticism regarding unfettered financial and commercial individualism, with calls for its social control. At the same time, as Graber shows, there is no simple alternative:

> We seem to be trapped between imagining society in the Adam Smith mode, as a collection of individuals whose only significant relations are with their own possessions, happily bartering one thing for another for the sake of mutual convenience, with debt almost entirely abolished from the picture, and a vision in which debt is everything, the very substance of all human relations—which of course leaves everyone with the uncomfortable sense that human relations are somehow an intrinsically tawdry business, that our responsibilities to one another are already somehow necessarily based in sin and crime. It's not an appealing set of alternatives. (Graeber 2011, p. 207)

Macpherson erroneously asserts that, as is shown in connection with Adam Smith's text *The Wealth of Nations*, the designation "individual" was first introduced to England in 1833 by the English translation of

Alexis de Tocqueville's *De la démocratie en Amérique*. This text, which is significant to the liberal US consciousness, derives a levelling interconnectedness between the citizens of all classes from the "possession" of rights and, once again, from the existential endangering of single persons: "Every individual being is in the possession of rights which he is sure to retain, a kind of manly reliance and reciprocal courtesy would arise between all classes, alike removed from pride and meanness. […] each individual will feel the same necessity for uniting with his fellow citizens to protect his own weakness" (De Tocqueville 1947, 10f.).

Tocqueville, here discussing the position of the single person in democratic society which he believes reduces the "individuals" within it in a problematic fashion, evaluates what he calls "individualism" in a highly ambivalent way: he sees individualism growing stronger precisely because of the demand for equality existing in democracies and, aside from its protective function, ascribes to it isolating tendencies and even a threat to society:

> Individualism is a novel expression, to which a novel idea has given birth. Our fathers were only acquainted with egotism. Egotism is a passionate and exaggerated love of self, which leads a man to connect everything with his own person, and to prefer himself to everything in the world. Individualism is a mature and calm feeling, which disposes each member of the community to sever himself from the mass of his fellow creatures; and to draw apart with his family and his friends; so that, after he has thus formed a little circle of his own, he willingly leaves society at large to itself. Egotism originates in blind instinct: individualism proceeds from erroneous judgment more than from depraved feelings; it originates as much in the deficiencies of the mind as in the perversity of the heart. Egotism blights the germ of all virtue; individualism, at first, only saps the virtues of public life; but, in the long run, it attacks and destroys all others, and is at length absorbed in downright egotism. Egotism is a vice as old as the world, which does not belong to one form of society more than to another: individualism is of democratic origin, and it threatens to spread in the same ratio as the equality of conditions. (81)

Privatisation, withdrawal from the state, egoism: Tocqueville recognises at an early stage the possible dangers of individualism as a mode of living founded on mis-recognition of self. On the other hand, he

considers it only conditionally dangerous, since the single person primarily has in mind their own financial independence and the tending of their own private sphere, which does not bring them into contradiction with democratic aspirations:

> As social conditions become more equal, the number of persons increases who, although they are neither rich enough nor powerful enough to exercise any great influence over their fellow creatures, have nevertheless acquired or retained sufficient education and fortune to satisfy their own wants. They owe nothing to any man, they expect nothing from any man; they acquire the habit of always considering themselves as standing alone, and they are apt to imagine that their whole destiny is in their own hands. Thus not only does democracy make every man forget his ancestors, but it hides his descendants, and separates his contemporaries from him; it throws him back forever upon himself alone, and threatens in the end to confine him entirely within the solitude of his own heart. (82)

Tocqueville draws a picture of single persons who are self-sufficient verging on autocratic, gently criticising their apolitical focus on their own private surroundings and belief in their "self-made-man" existence. In an 1840 review of this text entitled "M. de Tocqueville on Democracy in America" (Stuart Mill 1976), John Stuart Mill discusses its theses and, using egalitarian Canada as an example, rejects its assertion of a logical connection between social and economic egalitarianism and the invidualisation drive. In Great Britain, where economic differences were particularly pronounced, the struggle of individuals to preserve their social and economic special status was allegedly stronger than in Canada. Mill believed that rather than being due to "mobility and fluctuating nature of individual relations—the absence of permanent ties, local and personal" (238), the mobility and changeability of single persons and society overall had become a general rule in modern society. What is observed in mass society is thus not increasing individualisation, but its opposite: a "growing insignificance of individuals in comparison with mass" (239). He claims that individuals are largely powerless against the mass; since said mass can "act simultaneously" thanks to "mechanical improvements," the individuals have no other choice but to adapt to it. It is the general orientation

towards class, not the individual, that Mill deplores, and especially the middle-class norm. The danger he perceives is less in the increasingly tone-setting "democratic class" than in domination by a single class in itself: the dominant middle class, the "commercial class," imposes its norms on the whole of society, forcing everyone to imitate them.

In "Of Individuality, as One of the Elements of Well-Being" (1859), he accentuates still more strongly the lack of personal impulses and preferences in the contemporary "masses," outlining a control-society for his own era—"a hostile and dreaded censorship"—which causes single persons and families to set aside or to entirely abandon their inclinations and self-determinations. Public opinion normatises and uniformises, and discriminates against those who deviate: "The circumstances which surround different classes and individuals, and shape their characters, are daily becoming more assimilated" (268). As in his text *On Liberty* (Mill 2013) from the same year, he argues emphatically for the strengthening of individuality with regard to natural and social diversity, opposing individuality to despotism and custom, and praising genius and the original as the pinnacle of human individuation. Since utility is his paramount ethical criterion and he understands this as being strictly bound to the single person and the permanent interests of humans as progressive beings, social control is permitted only to interfere with the individual self-determination insofar as the latter affects the interests of others and threatens to restrict them. "In conduct concerning their own persons, the independence of [single persons] is absolute" (Mill 2013, p. 32). The threatening danger is social stagnation and hindered growth, as Mill believed had happened in China for centuries. By contrast, Europe evinces versatile and progressive development, thanks to a variety of individual paths and cultures.

The strongest antithesis to the liberal notion of interest-guided interconnection of single persons in a loose social fabric is provided by the pre-revolutionary social understanding of Jean-Jacques Rousseau. In *Inquiry into the nature of the social contract or principles of political right/Du contract social ou principes du droit politique* (Rousseau 1903) from 1754, he bases a theory of far-reaching fusion of individuals with the social body under the banner of freedom and equality on the natural law writings of Grotius. He does credit single persons with an inborn striving for self-preservation

and freedom in the spirit of his "nature of man" (3). However, since experience shows that the state of nature can endanger the survival of the single individual, he, like Hobbes, sees humans as forced to unite their powers and to form an association which must take on a dual task: protecting the single person and his goods whilst at the same time allowing him to be free, beholden only to himself. The conventional freedom of social existence, which he distinguishes from the freedom of nature, can only be fostered through a primordial act of consent and unanimity of all parties: in "the total alienation of each associate, and all his rights, to the whole community" (12). As Althusser says, Rousseau is adopting the natural law school's traditional solution, which anchors the origin of civil society and the state in the juridical concept of the contract (Althusser 2009, p. 47). Only by completely dispensing with special rights can perfect equality be achieved for all and a social contract of mutual commitments be concluded. If, as a person, one generalises oneself and affirmatively submits oneself and one's ability to the "general will" (Rousseau 1903), one becomes a member of an overall indivisible "whole body" (16). He explicitly emphasises that the individual does not lose through this, but is in fact the winner: "It is evidently false that individuals have made any real renunciation by the social contract"(31). Individuals gain protection, recognition, security. The founding act of the people as a people is performed by every single person, who thus experiences an increase in capacity: "His faculties unfold themselves by being exercised; his ideas are extended, his sentiments exalted"(17). Every subject engages at once in a relationship with all other subjects, and to the state as a whole. This sovereign appears as capable of action only when the whole people is really assembled, as it cannot allow itself to be represented—physical presence is a precondition for the law-giving power. And although Rousseau differentiates the human individual into the bourgeois with single will and the citizen with general will, at the same time he declares the compulsion towards freedom and the state to be subject to rationality. Otherwise the social contract is null and void. Additionally, he derives from the problematic premise that the single person is accorded an unrestricted power over their members the conclusion that the state is held together by a universal power and that the body politic must exercise absolute power over that which belongs to it. The general will must emanate from everyone and apply to everyone: "the sovereignty

is inalienable and indivisible" (23). It cannot be permitted to extend to an individual object and take account of special circumstances. Rousseau's desire for the suspension of the individual is explicitly expressed; in spite of his remarks on the freedom of the single person, he is thinking in terms of an authoritarian/collectivised sovereign people, not a dividual single person whose reciprocal conditionality he affirms. Whilst they are the collective originators of the rights, they appear, in a republic, to be "general:" the subjects are taken in the abstract sense, and are not considered as single persons in their specific action. Rousseau wishes the ideal government to be embodied in a strong-willed single person, with a readiness for violence.[6] Opposing Locke, he actually declares majority government to be "against the order of things" (66). Besides, there will never be a true democracy. Nothing between a unified body of the people and a loose association of single persons is discussed here. Althusser justifiably indicates that by way of the relationship between single and general will, other associations could be shown that do not require the—mythical—general interest to be understood as a reflex of the—mythical—single interest. Other interests and possible socialities are repressed as negotiation values between particular and general interests. This repression inevitably allows the sole interests of a group or class that are touted as general to become the dominant ideology.

Rousseau additionally rejects the claim of the single person upon property, considering it the origin of economic inequality rather than an article of natural law (Rousseau 1995). Here, as Balibar emphasises, the human being is "forever deprived of the possibility of possessing himself or recovering his 'own' self in his property, he exists only as fully-entitled representative of that universal part of himself that has united with all others to form what Rousseau calls 'moi commun', a communal 'I'" (Balibar 2013, p. 142). Rousseau declares the growth and flourishing of the associates, a bio- and power-political goal, to be the purpose of political association (rather than protection of property), describing the best government as that in which citizens flourish and multiply. Balibar concludes by summarising the "complete ambivalence of Rousseau's conception with regard to the alternatives of individualism and collectivism:" "The individualism is always only fictional, and the collectivism a means to transfer the 'third party'—the *we* or the people itself—[…] from the symbolic to the real level"(142).

Whilst Rousseau pays homage to an emphatic understanding of the sovereignty of the people, the early nineteenth century (as is analysed in greater detail elsewhere: cf. Ott 2010) saw the "population" category become the centre of attention. Thomas Robert Malthus's text *An Essay on the principle of population as it affects the future improvement of society* of 1798/1803 poses the problem of the relationship between population growth and food production, which also provides a preliminary structure for Darwin's theory of evolution. The principle of constant population (expounded by Malthus with a certain faith in divine regulation) is prominently refined by Darwin, with evolution theory relating abundant offspring to the constancy of species population numbers and thus deriving the principle of "natural selection." Nature is accorded the oversight role, and the single entity is accorded appropriate variation and selection. The fact that Darwin, like the sociologist Gabriel Tarde, credits only the individual with innovative power reinforces the presumed schema of development: spontaneous-wilful-habitual-instinctive-hereditary. At the same time, in his text *The Descent of Man, and Selection in Relation to Sex* (Darwin 1989), Darwin considers the promising qualities of humanity to reside in an ape-like "sociability:"

> In order that primeval men, or the ape-like progenitors of man, should become social, they must have acquired the same instinctive feelings, which impel other animals to live in a body; and they no doubt exhibited the same general disposition. […] Ultimately our moral sense or conscience becomes a highly complex sentiment—originating in the social instincts, largely guided by the appropriation of our fellow-men, ruled by reason, self-interest. (137)

Animal-like instinct is thus supposed to guarantee the higher development of the single beings and the formation of their moral abilities. The feeling of sympathy, declared to be inborn by Scottish/English philosophy since the early eighteenth century, is presented as the prerequisite for refinement of the social instincts, preparing the way for reason and morality.

The two foremost French sociologists make it particularly clear that nineteenth-century sociological analysis oscillated between focusing on the single person and on social facts detached from the single person, and by no means merely, as Michel Foucault (Foucault trans. Macey 2003)

asserts, focused on the population and the human species. They constitute very different social agents. Referencing Leibniz, Gabriel Tarde reflects on modern society very much from the perspective of the single person, although he outlines the single person's condition as embedded in transindividual physical and psychic values. Far from agreeing with his colleague Emile Durkheim, who understands the social dimension as a fact preceding the individual dimension or even as a body of unity, his own *Monadology* (1895) presumes that the single human is the carrier of the social dimension. He does not believe that the "social individuals" represent atoms in the classical sense of the smallest indivisible part, but that they themselves are composite: "They themselves […] are composite, not excepting the atom itself which […] would be a whirling mass of simpler elements" (Tarde 2012, p. 8). Still more strongly than Leibniz, who in spite of admitting perceptive interaction between monads, also emphasises their windowlessness, Tarde emphasises "the irreducible intervening series of forms or states which must be traversed" (12) between the single units, and thus the (de-in)dividuating processes. He sees the persons as tied into both social desires and religious beliefs, but, above all, as related through mutual imitation. In *The Laws of Imitation/Les lois de l'imitation* of 1890 (Tarde 1903), he describes imitation as derived from instinctive and inorganic processes, comparing it with the excitation of protoplasm and the elasticity of the ether. He distinguishes sociality as processual plasticity from social structures, just as the elasticity of the ether is distinct from molecular structures. Aside from electromagnetic attraction images, he likes to use the image of interference of light and sound waves to evoke the unfocused nature of this sociality. After all, what is social life other than waves of hopes or fears, which constantly encounter one another and are constantly stimulated afresh by new ideas, which in turn call forth new needs? Precisely because human individuals are understood as the crossroads of these non-individual affects and ideas, he characterises both them and the atoms as all-encompassing and generic values, as "*a universal medium* [*milieu universel*] […], a universe *in itself*" (Tarde 2012, p. 27). Observing a mutual interpenetration of the social monads, Tarde concludes by saying that:

> […] thanks to the development of civilization, the possessed becomes more and more a possessor, and the possessor a possessed, until, by equality of right, by popular sovereignty, and by the equitable exchange of services, ancient slavery, now mutualized and universalized, makes each citizen at once the master and the servant of every other. At the same time, the ways of possessing one's fellow citizens, and of being possessed by them, grow in number every day. (51)

Thus, he outlines highly affective dividual relationships. The social individual appears as a much outcrossed value/entity, which in itself both infolds and unfolds the social dynamic and produces a psychophysical continuum with other individuals. Interestingly, Tarde also credits non-human entities with a social character, resulting in an expanded and contemporary sociological understanding:

> *Everything is a society*, every phenomenon is a social fact. Now, it is remarkable that science, following logically from its preceding tendencies, tends strangely to generalize the concept of society. Science tells us of animal societies […], of cellular societies, and why not of atomic societies? […] All sciences seem destined to become branches of sociology. (28)

Tarde seeks to reinforce his imitation theory with observations from history according to which previous eras showed a greater heterogeneity of social manifestations, which, over the course of sociation, had become homogenised, once again becoming differentiated at a later stage through individuations. In line with this assumption of a three-step historic process, an initial heterogeneity of individual physiognomies had been homogenised by schooling and milieu and transformed into a uniform surface, only to develop apart over the future course of their development: "Men are not born alike, they become alike, and, besides, is not the inborn diversity of the elements the sole possible justification of their variability?" (Tarde 1903, p. 71) The development of societies presented as a structural adaptation of initially heterogeneous entities, before the entities thus made similar once again differentiate themselves through the cultural process. Class oppositions and national boundaries are supposed

to be overcome in the long term thanks to this secondary, ever more intricate differentiation, with the prospect of a successive evening-out democratising the international space. Modern metropolitan life, with its intensity of imitation, is said to be the major factor promoting social differentiation into individuals. Tarde thus affirms the competition of megacities and praises the city-dweller as the most imitation-intensive type, who, thanks to his "nervous excitability" (247) remains open to new dimensions and constantly continues to remodel himself. The positive basic mood of his theory is based on this belief in a social heterogeneity that can be regained. His idea of an initial and ultimate differentiated state anticipates Freud's, Simondon's and Deleuze's assumptions on an unconscious, pre-individual or virtual initial differentiality of the single person, which is realised according to symbolic actualisings as difference.

His colleague Emile Durkheim, on the other hand, believes that collective life does not proceed from individual life, but instead has a genesis independent of single humans. Thus, the individual is given a secondary role in his sociological theory. The space occupied by any society proceeds from the collective practice of subdivision and allocation of various "affective colourings" (Durkheim 1912, p. 11) that, in contrast to Tarde, is understood as impersonal. Consequently, Durkheim initially investigates the "social facts" that condition single persons and their mass behaviour. His methodical considerations in *Rules of sociological method/ Les règles de la méthode sociologique* (1895) do not relate to human agents, but to:

> […] ways of acting, thinking and feeling which possess the remarkable property of existing outside the consciousness of the individual. Not only are these types of behaviour and thinking external to the individual, but they are endued with a compelling and coercive power by virtue of which, whether he wishes it or not, they impose themselves upon him. […] Thus they constitute a new species and to them must be exclusively assigned the term social. It is appropriate, since it is clear that, not having the individual as their substratum, they can have none other than society, either political society in its entirety or one of the partial groups that it includes—religious denominations, political and literary schools, occupational corporations,

> etc. Moreover, it is for such as these alone that the term is fitting, for the word "social" has the sole meaning of designating those phenomena which fall into none of the categories of facts already constituted and labelled. They are consequently the proper field of sociology. (Durkheim 1982, p. 51f).

As the qualities of a new genus that is not founded in human individuals, they are supposed to nonetheless penetrate into the individuals, imposing themselves on them, and are experienced by them as the "coercive power" (53) of society. Through these pre-existing, more-or-less unconscious (but all the more effective for that) types of action thought and feelings, single persons are approximated to each other, or even fused together. Durkheim thus objects to Tarde's view, saying that collective affectations and a collective consciousness are to be understood as their effect, and not as their cause.

In his text *Division of Labour*/*De la division du travail*, published in 1893, (Durkheim 1965) he sees "social division of labour" in industrial society as far more than an economic organisation principle. In fact, he sees it as the primary source of the positive social solidarity that constitutes modern society and its "differentiated parts" (181): "they are co-ordinated and subordinated one to another." Individuals are here "grouped, no longer according to their relation of lineage, but accordingly to the particular nature of the social activity to which they consecrate themselves" (182). They depend upon each other in the same way that they are distinguished from each other. Division of labour is thus presented as a socially constitutive, cohesive, and differential principle—one clearly reserved for the male population, as the individual is always related to the male gender: "Because the individual is not sufficient unto himself, it is from society that he receives everything necessary to him" (228). Division of labour supplements the binding function of the collective consciousness generated by communal convictions of belief and effects of a society and lends it altruism "as its fundamental basis" (228). This is realised in the individuals, who are understood as "co-operators" who in turn have obligations relative to society, as a "psychic type of the society"; collective power, as "moral" power, is on the other hand placed above the individual. Durkheim thus credits the single persons with two

ways of consciousness: an individual personality and a "collective type" that would not exist without the specified society. He considers single humans to be collective/individuated values, psychically particularised and effectively/morally intergrown with the social association. However, since both consciousnesses must, singly, represent "one" consciousness, I would refer to a dividual constitution, whose specialisation results from the specific participation in socially constitutive processes and their affective/cognitive conjunction in single cases. Durkheim sees the differences between the single persons owing to vocational specialisation and division of labour increasing in all-encompassing modern societies owing to the struggle for survival. The collective consciousness must thus leave the individual consciousness free so that the special functions which it cannot regulate for itself can emerge. The place of divided belief convictions is then taken by feelings, which become all the more intense the more they relate to individuals. Personalities thus occur that dissociate themselves from the "communal" consciousness. However, they are also reliant upon the whole relative to the extent of division of labour; the more divided labour is, the more closely everyone depends upon society. Durkheim sees two opposite movements simultaneously at work in modern society: on the one hand, individuality increases in tandem with vocational specialisation, and on the other hand, no employment can realise itself in a fully independent way, for which reason a single person requires others in proportion to that single person's degree of specialisation. What this means for society is that the individuality of the whole develops together with the individuality of the parts. In my own words, social differentiality increases in proportion to the dividuations of the single persons.

He prefigures the fate of globalising societies in that he sees the differences between the large units, the "peoples" or national characters, increasingly vanishing, with an increase in "individual types" taking their place; consequently individual persons who standardise specific presentation ways of the individual. He then determines the moral task of these single persons in a division-of-labour society as forced participation and affirmed particularisation: "We must contract our horizon, choose a definite task and immerse ourselves in it completely, instead of trying to make ourselves a sort of creative masterpiece" (401). In this context, he

also states that personal freedom has at all times been restricted by society, saying that "progress of individual personality" (404), "the ideal of human fraternity" (406) and solidarity can only be achieved relative to division-of-labour advancement. Durkheim's overall diagnosis for the social future is that the insight that individuals are rather to be seen as a product of communal life than as determining it will become increasingly widespread. After all, when one takes away from everyone that which they owe to the effect of society, little remains, and that little shows no great variety. We might therefore assert, like Durkheim, that individuals in the functionally differentiated society are not, as Tarde would wish to believe, once more strengthened as substantial and unmistakeable individuals—in spite of their transnational and possible transcultural orientation. The level of dividuatedness actually increases with intelligent and engaged participation. Participation (albeit in specific combination) makes the individual persons similar to each other (in a level-dependent way) and assigns them, as Durkheim saw, specific dividuation types in world society-becoming.

The Endangered Mass Individual

Using the term "individual" sparingly, Sigmund Freud is surely the theorist who has most conclusively shaken the modern age's belief in an undivided and non-interchangeable single human existence. Psycho-analytical discourse owes its origins to daring hypotheses on the psychological dividuations of the single person, on the unconscious and pre-conscious constitution processes of the ego, and on countervailing drives and the polarised objectives of said drives—in short, to a psycho-genesis tied to others and to collective dynamics. This discourse is formulated as assumptions on the unconscious innervation of phylogenetic inheritance and ontogenetic childhood experience such as traumatic events and seduction experiences inaccessible to memory. In the *Introductory Lectures on Psycho-Analysis* (1916–1917), Freud attributes unconscious obsessions to accidental experiences in childhood, to constitutional tendencies or even to the consequences of the experiences of ancestors: "I believe these *primal phantasies* […] are a phylogenetic endowment. In them the individual

reaches beyond his own experience into primeval experience at points where his own experience has been too rudimentary" (Freud 2000, 3427). This was supposed to represent the actualisation of long-past pre-individual events nonetheless essential to life. Thus, in *The Ego and the Id* (1923), Freud arrives at a revolutionary conclusion that dismisses the individual: "We shall now look upon an individual as a psychical id, unknown and unconscious, upon whose surface rests the ego" (Freud 2000). In *Group Psychology and the Analysis of the Ego* (1921) he explicitly claims that there is no principal difference between individual and mass psychology, "since in the individual's mental life someone else is invariably involved, as a model, as an object, as a helper" (Freud 2000, 3765); owing to the involved, pre-existing, and not self-generated pattern, individual psychology has always been social psychology. Echoing Le Bons's remarks on the unconscious behaviour of a social mass, this pre-imprinting with a non-individual template is supposed to experience especial renewed actualisation in mass experience: the mass is vivified by all the pre-rational properties—such as impulsiveness, responsiveness, fantasy activity—and seduces the single person into living out unconscious drive impulses. In opposition to Durkheim, Freud believes that the single person experiences affective stimulation, not emotional unburdening, through mass experiences: since narcissistic self-love encounters obstacles in modern society, the essence of a group formation consists in "new kinds of libidinal ties among the members of the group." (3796) We could take this further and say that contemporary participation in social media and communication with an unlimited number of people is also driven by the yearning for new group formations and affective/identity-lending compensations.

On the other hand, Bertolt Brecht—in the context of his brief 1930s discussion on "dialectical drama"—reflects on the relationship between "imperialistic capitalism" and war (the First World War), and questions the function accorded to human agents, the "most gargantuan collective" or the "migration of the peoples" within it. Brecht diagnoses the heightened industrial development that produced the destructive potential of the First World War, seeing the single person functionalised both as a single person and as an element of mass units and also definitively disempowered by shifting assignability:

> The war shows the role that the individual was destined to play from then on. The individual as such exercised active influence only as the representative of many. But the individual's intervention in major economic and political processes was limited to the exploitation of them. The "mass of individuals," however, lost its indivisibility due to its assignability. Individuals were continually assigned roles, and this signalled the beginning of a process that did not target the individual at all, that was not affected by his intervention, and that did not cease to exist when he did. (Brecht 2014, p. 55)

Brecht shifts the focus to industrio-(military)-political assignments and divisions of the many, which actually deprive single persons of power via their separation from the collective, and—more than ever today—have stolen away the one-time class affiliations and their sense of identity, leaving behind isolated individuals, with only relationship ties. Based on this insight, Brecht created an enduringly relevant drama form that operates "without individual" and breaks down "*conditions into processes*" (p. 57). His pieces bring "*relationships*" between group agents and single persons onto the stage: "the individual ceases to be at the centre" (58). The intent was to free dramatic material from its character as a commodity and elevate it to a "communal property" to be analysed through study.

At around the time Brecht was describing an economic/political appropriation and assignment process that robbed workers in particular of their power to unite and make an impact, Siegfried Kracauer discovered a heightened image of human dividuation in visual/cultural body formations imported from the USA: in so-called *Mass Ornament* (Kracauer 1995). He felt that the social "tendencies of a particular era" were particularly visibly communicated in pop-cultural and "inconspicuous surface-level expressions" (75) such as women's bodies arranged in displays. Analytically, Kracauer diagnoses Tiller Girl formations as "no longer individual girls, but indissoluble girl clusters" (75); an arrayed sexless spectacle, permitted only to perform similar, geometrically precise and repeatable movements of individual body parts comparable to the actions of production-line workers, reduced to mere mechanical physicality. "Only as parts of a mass, not as individuals who believe themselves to be formed from within, do people become fractions of a figure" (76). As such, they demonstrate the position

and function of individuals in mass society and its culture industry. However, this abstract quality also reveals "man's most essential element in all its purity" (83) in an age of capitalist production: "the exodus from lush organic splendor and the constitution of individuality toward the realm of anonymity" (83). The organisation of bodies into abstract links in a chain thus proclaims an advance in rationality but also an "empty formalism" (82), "the rational and empty form of the cult" (84), that merely covers up its mythological/cultic aspect, allowing it to continue to flourish beneath the abstract surface. From his dialectical perspective, Kracauer thus criticises several aspects: firstly, the abbreviation of reason to an instrumental ratio, which "is too weak to find the human beings within the mass and to render the figures in the ornament transparent to knowledge" (84); secondly, the disassociation of reason from nature, which causes the latter to progress uncontrolled and grow once again in impenetrability; and, finally, the sanctioning of the prevailing order that goes hand-in-hand with the high esteem for the body cult. He feels that *Mass Ornament* thus proves itself to be an expression of a flight from reality and a "relapse into mythology of an order so great that one can hardly imagine its being exceeded, a relapse which, in turn, again betrays the degree to which capitalist ratio is closed off from reason" (84).

Strangely, Norbert Elias, (Elias 1991) in 1939, still feels called upon to remind us of the reciprocal dependence of individual and society, as he considers that the function of the single person in the social whole—and his individualising by society—receives too little attention. His emphasising of the integration of the single person into the historical and social context once again makes it puzzling that the term "individual" has not long since been replaced by "dividuation:"

> By his birth he is inserted into a functional complex with a quite definite structure; he must conform to it, shape himself in accordance with it and perhaps develop further on its basis. Even his freedom to choose among the pre-existing functions is fairly limited. It depends largely on the point at which he is born and grows up within his human web. (14)

Elias sketches a modern form of (male) slave-owner society, imagining people "tied by invisible chains […] of work and property or of instincts

and affects" that leave them trapped all their lives in a "network of dependencies." He credits this "network of functions within a human association" (15), which is by no means the product of a unanimous "contract social," with an indeterminate genesis; it has "a weight and laws of its own which leave only a precisely circumscribed scope for bloodless compromises—and every majority decision is […] such a compromise" (15). His subsequent analyses from the 1940s and 1950s envisage the action chain becoming ever longer as modern society increasingly differentiates, supposedly reinforcing individualisation still further, with single persons' isolation and separation actually increasing precisely because of their relationships to others, leading to abstention from drives and increased affect regulation.

Elias Canetti's 1960 philosophical investigation *Crowds and Power* (Canetti 1980), which does not explicitly reference the people's bewitchment and military massing under German National Socialism, but is surely based on the epistemological examination of it, discusses various mass formations (from archaic to modern) and seeks to elucidate their psychological effect upon single persons. Canetti's text begins with the anthropological thesis of single persons' primal "fear of being touched" (15), which he believes causes them to withdraw from civilisation. The fear does not vanish within a crowd, but in "the dense crowd […], whose psychical constitution is also dense or compact" (15), the person ceases to fear its touch. Canetti attributes this enduring ambivalence of single persons toward masses to their unstable psychological structure and potential for transforming themselves. "The increasing fluidity of his nature" (382) allows the promotion of structures and barriers and distances alike. Consequently, Canetti does not recognise the term "individual" in the strong sense: "There were so many sensations which he experienced as something alien operating within his body […] that he felt as though he had been given over to it and forced to become it. […] He felt as though there was nothing but movement everywhere and that his own being was in a state of continual flux" (382). He believes this impression of fluidity is the basis for social bans on transformation, and the single person's drive toward "solidity and permanence." As can be seen, Canetti diagnoses a feeling of deep-reaching dividuatedness of the single person (not restricted to the modern age) that can be cancelled out only by external boundary-setting: Thus, the

mass experience is accorded a beneficent boundary-setting function. The psychological insecurity vanishes under the impression that all are connected through bodily communication and affect transference: "Suddenly it is as though everything were happening in one and the same body" (16). The mass experience also compensates for single persons' lack of social ties whilst beneficently cancelling the social hierarchy, because the mass constitutes itself through the moment of "discharge" (17): "This is the moment when all who belong to the crowd get rid of their differences and feel equal" (17). In their bodily closeness, differences of rank and station vanish, creating relief and a happiness peculiar to mass society: "It is for the sake of this blessed moment, when no-one is greater or better than another, that people become a crowd" (18). Canetti, like Kracauer in *The Mass Ornament*, sees the body parts of mass-people forming hitherto unknown configurations in order to maintain this density, and even to simulate growth, thus becoming partial elements of an abstract co-ordinated movement:

> The equivalence of the dancers becomes, and ramifies as, the equivalence of their limbs. Every part of a man which can move gains a life of its own and acts as if independent, but the movements are all parallel, the limbs appearing superimposed on each other. They are close together, one often resting on another, and thus density is added to their state of equivalence. Density and equality become one and the same. (32)

When, instead of masses, Canetti describes packs or mobs that are restless, mobile and characterised by "actions"—and their "expression of communal excitement" (93)—one thinks of contemporary e-communities, similarly driven by desiring duration, growth, and a confirmed continued presence, and spread via media activity and passing-on of affect. As with packs, all individuals have a specific place here, but retain a distance dependent on participation choice. According to Canetti, "familiarity" and "repetition" with the simultaneous possibility for isolation have given rise to formations that have proved "uncannily constant" (116). Deleuze and Guattari (Deleuze and Guattari 1987) take this further, emphasising the topological configuration of the pack, its fluid dynamic and the infectious potential lent by its inherent multiplicity, a "multiplicity that fascinates us

already related to a multiplicity dwelling within us" (240). In contrast to Canetti's emphasis on a familiarity that allows single persons to feel safe within the pack, they emphasise the release of "affect (which) is not a personal feeling" (240) and a de-territorialising movement that causes participants to become imperceptible, indiscernible and nameless, with multi-vocal and collective enunciations. They can generate anonymous, mobile and unexpected articulation formations, like "smart mobs," which counteract social stratifications, technological surveillance regimes, and international corporations, disrupting their unquestioned existence through massed anonymous writing. This accords with Deleuze and Guattari's hoped-for de-hierarchising of dominance structures and decoding of exclusive sign regimes, de-individuating "the desirable," neutralising the symbolic field through information blockades or swamping with signs and transforming it into topographies generated by horizontal alliances and unexpected enunciation assemblages. Here, single persons are dividuating themselves affirmatively through processes of mutual affections and operational duplication. In the best case, they connect with other minorities, within which they can extend their becoming-dividual process: "Even blacks, as the Black Panthers said, must become-black. Even women must become-woman. […] Becoming-woman necessarily affects men as much as women. In a way, the subject in a becoming is always 'man,' but only when he enters a becoming-minoritarian that rends him from his major identity" (291).

Max Horkheimer and Theodor W. Adorno's critical theory deplores (in a theme previously encountered in Kracauer's *The Mass Ornament*) the capitalist culture industry's aesthetic and human uniformising and levelling tendencies. In his early text *On Jazz* (Adorno trans. Daniel 1989–1990) from 1937, Adorno, criticising Walter Benjamin's concept of the artwork, emphasises the loss of individuality in modern de-differentiated mass culture:

> The capital power of the publishers, its dissemination through radio, and above all the sound film have cultivated a tendency towards centralization which limits freedom of choice and barely allows for any real competition. Its overpowering propaganda apparatus hammers the hits into the masses for as long a period as it sees fit, although most of these are the worst examples, until their weary memory is defenselessly delivered up to them. (80)

Experiencing the Second World War sharpened his criticism of the individual of weak personality who adapts to an authoritarian system without resistance and thus supports it: in his 1966 radio lecture *Erziehung—wozu?*, (Adorno 1973) Adorno asserts, with an eye to the National Socialist past, that the "anti-individualism that has for so long dominated German pedagogical discussion and continues to resonate" can be called "reactionary, fascistoid" (117). He calls for the personality of the single person to be strengthened to counteract this "authoritarian" anti-individualism—whilst plainly recognising the ambivalence in such a strengthened personality. After all, although education that does not aim to form a strong individual should be judged as oppressive, there is also an ideological aspect to a call for individuation. One cannot "postulate education to individualhood" (117), if only because social opportunities for individuation and the corresponding working processes that required individual qualities do not exist in a capitalist society. He actually criticises US society for increasingly allowing the individual-forming family to be replaced by the collectivising processes of "social activities" (Adorno 2008, p. 107). In this "whole business," the sphere of individuality is "ever more devalued, until, in the constantly demanded social adaptation processes, there is really nothing much ultimately left of the so-called individual but the ideology." And yet in what country is individualism more highly regarded than in the USA? In Germany, Adorno wishes to see "much stronger resistance against this total socialisation extending to the so-called individual and intimate spheres" (107). He accuses capitalist society in general of placing "a premium on non-individuation, on people joining in"—in an unconscious continuation of National Socialism (Adorno 1973). Thus, Adorno formulates the extremely problematic assumption of a continuum between the totalitarian system and the democratic/capitalist society, in which the individual is, as it were, totally expended. The one conceivable counter-measure remaining is to educate educators and teachers to enable social conditions analysis as a precondition for the cultivation of critical consciousness in children and students. Likewise, the social scientists' methodology must expose the socio-economic appropriation of the single person, not cancel or eliminate these persons through scientific system building à la Hegel or a "unity continuum" (Adorno 2008 p. 154f) like Parsons. The opposition, "the

antagonistic relationship of individual and society," should not be slurred over by scientific systematics, nor should worlds of the individual and of society be proclaimed identical through "univocal" terminology.

Individuation in a New Enlightenment sense can only grow from experiences of externalisation and of the "non-I in others:" of personal difference. Adorno connects positive individuation with strength of the I and an understanding of self "as the power centre of resistance" (Adorno 1973) that manifests itself in learning to tolerate the tension or irreconcilability between one's own struggle for maturity and the inevitably alienated social position of the single person.

On the other hand, like Hannah Arendt, he criticises the understanding of the individual as distanced from the state, where single persons focus on themselves and on their personal happiness:

> He (Aristotle) sees retreat into thoughtful contemplation as the highest good. This implies resignation from public life. A deep contradiction in the relationship between individual and state is evident: the more unrestrictedly the individual pursues their own interests, the more they lose sight of a shaping of society's organisation in which these interests are protected. Through unfettered liberation, the individual prepares the ground, as it were, for his own repression. (Adorno 1986)

For this reason, he now calls not for the strengthening of individuality, but for the reining-in of private interests and the individual will in the cause of increased wider societal awareness. In a late-in-the-day insight that makes him critical of individualism, he asserts that single persons tend to cease to be human to the extent to which they establish their will (Adorno 1966, p. 261). In the face of these contradictory observations, Adorno ultimately arrives at a position of criticising the self-interested individual pursuing their own objects and their ego-less contemporaries whose apathy to politics rests on the "feeling that [they have] no power over the objective course of things" in equal measure (Adorno 1986).

Like Adorno's critical theory, Habermas's emphasises the individuation process's imperative nature, which Habermas believes to result from the internalising of behaviour-controlling instances and their symbolising in communication interactions (linguistic and action-based) through which

recognition and autonomisation are experienced. He claims that the outside world's contradictory expectations, which the single person "must generalise and integrate through abstraction," construct an "internally controlling one's own modes of behaviour" (Habermas 1992) which can then be linguistically communicated. Individuation appears to him inescapable, since social differentiatedness imposes tension-rich normative expectations on single persons that cause them to make choices and decisions and to frame themselves as self-active individuals. He states that this begins with "detaching from roles," distancing oneself from outside expectations: "The individuation of the self results from the number, reach and multiplicity of the autonomous actions (normatively credited to us) that we initiate. It is within this that the ability for individually attributable decisions is realised." On the other hand, Habermas himself describes negative processes of appropriation and de-individualisation of the single person in social functional systems:

> The integrated person must adjust to control media such as money and administrative power. These exercise a behavioural control that on the one hand *individualises* him because it is tailored to the preference-guided choice of the individual, but also *standardises*, because it permits […] only the possible choices in a pre-specified dimension. (237)

The individualisation emphasised here is presented as purely an optimised adaptation process to system dictates, reduced to a "self-chosen" participation mode within a selection spectrum. Habermas himself admits that, under capitalist conditions, the exhortation to self-choice can decay into consumerist individualisation, which, paired with abundant advertising strategies, appears to be controlled by another agency: *zeitgeist* evaluation. Today, Habermas's assessment of individualisation opportunities looks optimistic verging on naïve: he sees a prospect of increased authenticity of the single person emerging from contemporary participation conflicts. As can be seen, his conception entirely excludes the technological appropriation dimension and the single person's passivising through deprivation of work participation.

Hannah Arendt's interest in the philosophical evaluation of the human capacity for action, production, and thought began with *Vita activa*

(1958/1967). Like Adorno, she queries the Aristotelian privileging of private—unpolitical—contemplation and the equating of happiness with personal peace. On the other hand, she criticises the higher status accorded to poiesis, to production and a specific form of art relative to political action, practical reason, and becoming active in the public space. *Origins of Totalitarianism* (Arendt 1958) contains probably her clearest analysis of a term which has become normative, "the bourgeois individual," from early imperialism to its modern identity. She vehemently criticises its imposed apolitical attitude and self-absorbed nature. She claims that bourgeois efforts at assertion against the status-based arrogance of the nobility have all failed because they all fitted only the apolitical individual, who lacks the crucial element of aristocratic arrogance: the exercising of power and privilege, unearned and without desert. "Deprived of political rights, the individual, to whom public and official life manifests itself in the guise of necessity, acquires a new and increased interest in his private life and his personal fate. Excluded from participation in the management of public affairs that involve all citizens, the individual loses his rightful place in society and his natural connection with his fellowmen" (141) In the nineteenth-century imperialist era, this individual became a businessman, a model which in turn infected the politicians, who no longer thought in terms of categories of public action, but of possession, and even of the division of and appropriation of continents. The maxims of private, competitive trade gradually became principles of order for public matters. Arendt sees the implementation of these principles and the bourgeois "worldview" in Germany beginning with the Reich founding of 1870, claiming that it extended the recklessness of business enterprise to the political sphere of public matters, causing individual citizens to ultimately lose even the poor protection justice and law had offered them against the anarchy of society. Modern society exchanges not only wares, goods and virtues, but also human beings: everything becomes a calculable value, whose price is decided in the generalised exchange of society. This "radical relativism," monopolised by public opinion, permits the individual to regulate supply and demand to best advantage. In spite of his isolation, he can recognise his advantage, and pursue and realise it with the aid of a majority: "Hence, the will to power is the basic passion of the individual; he regulates the relationship of individual and society;

all other endeavours for wealth, knowledge, honour can ultimately be traced back to this" (220).

Arendt describes as characteristic tendencies of bourgeois liberalism the growing similarities of individuals in the quest for power accompanied by a failure of recognition, that the state rules over classes and not over individuals and, as she says in a reference to Hegel, ultimately understands itself as a kind of individual, as the highest, before which all human individuals must bend in equal measure. She thus sees the isolation of the bourgeois individual, the strengthening of mass movements and the political totalitarianism in the twentieth century as connected: "The truth is that the masses grew out of the fragments of a highly atomized society whose competitive structure and concomitant loneliness of the individual had been held in check only through membership in a class" (317). Because individualisation and political apathy are factors of the same development, totalitarian movements can grow out of the atomised society, in which the competition between individuals and the resulting problem of isolation can be bounded only by class affiliation, in which they retain a home irrespective of success or failure. "The chief characteristic of the mass man is not brutality and backwardness, but his isolation and lack of normal social relationships" (317). She collectively terms "mass individuals" the single persons made contactless—the subjects who remain following the far-reaching collapse of the class system.

Can Adorno's diagnosis that individuals today "consciously or dully (notice) that their life is actually not at all dependent upon state politics, but upon the as it were elementary processes that play themselves out beneath the state organisation form, in the heart of society itself" (Adorno 1986, p. 290) be interpreted as a prediction of contemporary developments which see other types of subjectivation induced by minority desire economies, media configurations, non-state collaborations, and frequently temporary, swiftly changing pack formations of rootless but not contactless single persons? After all, this development does more than just produce new types of combination between collective formation and individualisation and modes of global solidarity at the various levels of world society-becoming. It also leads to continued self-questioning by the critical and engaged participants in the becoming-different of the world.

World-Society Individuations

In a manner highly relevant to our present-day, the sociologist Niklas Luhmann adopts a different position from predecessors such as Max Weber or Emile Durkheim. He sees the social dimension as constituted by a purely formal principle: the linguistic, temporally enduring, self-nourishing, self-regulating, and self-observing communication between a countless multitude of speakers, aiming for difference formation rather than consensus. He attributes this communicative autopoiesis to the fact that, "as communication proceeds, it generates identities, references, eigenvalues [intrinsic values], objects—whatever the individual human being experiences when confronted by it" (Luhmann 2012, p. 9) and, simply in order to continue, generates sufficient "*constituting* meaning" for society. In his systems theory approach, which operates by distinguishing system and environment, self-differentiation and self-observation of the societal system, the human single persons are assigned to the environment, based upon methodological pre-decision. If they are understood as part of the system, then social theory must elucidate their real division—into levels, nations, ethnicities, groups etc. Luhmann disagrees with this based on the fundamental assumption of human equality, and this additionally sabotages the humanism much-evoked in his own notions and is an embarrassment for his theory formulation. For that reason, he excludes any "methodological individualism" and any founding of the social in any principle pre-existing communication—à la Durkheim. Society "cannot be attributed to a subject, to a social *a priori*, to a 'life-world,' or to anything else in the sense of a reduction to something that always has to have been given as the precondition of all communication" (Luhmann 2013, p. 172).

We see how much Luhmann's social theory focuses upon self-sustaining and self-regulating knowledge communication when he declares it impossible to derive communicative processes from the individual, simply because single persons cannot themselves be aware of their lack of knowledge. Ignorance and knowledge can only be clarified in social communication: this proceeds from information exchange, not from social need and interest communication or affect interaction. In a systems-theory

transformation of Leibniz's *Monadology*, Luhmann understands world as endless virtual information, requiring self-differentiating and operatively closed systems for its actualisation. Regardless of this, he also advances the observed increasing complexity of communication—or, in other words, "the extent of worldwide, decentralized, and connectionistic communication via networks in the 'information society'"—as an argument for his understanding of society (Luhmann 2012, p. 10). This makes it less surprising that, speaking before the new millennium, he sees a "world society" arising as a consequence of expanded communications.

At the same time, he is interested in the question of individuality's historical genesis. He sees individuals as operatively closed and historic single consciousnesses that are not, however, psychologically distinct; as "filters," through which the whole physical world must pass in order to become currency in social communication. They are constituted through social communication via "self" and "other" assignments, and become multipliers for them. Or, as Luhmann also says: communication participants individualise themselves through that which they "can mobilise in other interactions in the way of resources, what duties they have to perform and what time they have to spend" (Luhmann trans. Barrett 2013, p. 136). They belong to the societal environment as "persons" who carry on communication and as "the biomass of human bodies" (p. 252), whose survival with regard to maintaining communication must at times be discussed. He emphasises their individuality and refutes the attributed generality encountered in Husserl's transcendental discussion: "only under transcendental theoretical premises can we assume that every subject can find necessities/impossibilities *within itself* (thus a substitute for the old 'nature') that it can presuppose in the same form for *all others*" (Luhmann trans. Barrett 2012, p. 271). Individuality, he claims, must be thought of in a strictly individual and historic way, with the concept treated as distinct from the real existing individual. After all, the "individuals" are all equipped with different perceptions, opinions, and rights of action, thus "[symbolising] the unknownness of the future" (252).

With reference to historic differentiations of society types, Luhmann analyses various types of individualisation as the product of culturally occasioned assignments:

> Sociology can assume that the individuality of all […] is a cultural artifact that can be explained neither biologically nor psychologically. The singularity of the body and consciousness of each human being and the operational closure of the corresponding autopoiesis is a self-evidence presupposed in all variations of societal history. […] But it was only in modern times that being an individual came to be institutionalized in a way that allowed, indeed, expected, individuals to behave accordingly. (Luhmann trans. Barrett 2013, p. 264)

Already-cemented societies that constitute themselves via relationship configurations and/or territoriality are characterised by individual peculiarities: "in this sense, society consisted of people whose individual particularity was known and, as recent research has shown, was highly respected. Personality was accorded with name, responsiveness, and the capacity to assume obligations. It was a function of social relations" (p. 31). In this context, he rejects the thesis of "increasing individualization in the course of development" (Ibid. endnote 73). On the other hand, he dates the birth of the anthropological "individual" concept to the late eighteenth century—in harmony with localised reconstruction—which saw the metaphysical grand conceptions of modernity differentiated through philosophical and early comparative-culture anthropologies, and also through poetic profilings of the ego, the artistic genius and its unmistakable character. The flourishing letter-writing culture of the late eighteenth century and Germany's novels of formative years and education, and equally the Romantic novels that extended into an interminable process, bear eloquent witness to this. The potentiated reflection demanded by Romantic philosophy and literature theory also demanded that the novel become more social, whilst society simultaneously became more Romantic, in a new penetration of the symbolic and real spheres in terms of de-hierarchisation and cross-fertilisation. From this point in time onward, according to Luhmann, one had to explain "how social order was possible despite the individual subjectivity of human beings—be it in terms of social contract [or] mutual reflection" (p. 267). He summarises this epistemological shift in the critical formula as the "switch in the concept of individuality from indivisibility to self-observation of one's own peculiarity" (p. 176). This new understanding of individuality

as self-observation of one's own peculiar qualities could be understood as a counter-argument to the description of self as dividuation espoused here, if the insight of our diverse participation and involuntary subdividedness does not actually undermine the impression of particularity and non-interchangeability.

From the nineteenth century onwards, the individual was increasingly associated with the programme of "self-realisation," which Luhmann appears to primarily associate with middle-class female readers: the individual "achieves this by copying individuality patterns that it finds in life and above all in literature" (vol. 1, p. 210). He credits literature with a normative function as well as a model function, raising further questions about the individual character of such an individualisation process. The social functional areas, which are becoming autonomous in their independence from transcendental justifications, then try to compensate by leaning on "the individuality of those acting within them" (p. 264).

Dirk Baecker dates anthropological research of human individuality (albeit not described as such) earlier, to the first efforts at self-observation in the seventeenth century. He sees Descartes's self-analysis whilst in a state of cataclysmic doubt and his search for secure insight as a telling example of this. Speaking of the nineteenth century, Baecker also speaks of the tying of the individual to the criterion of work and its significance to the single person: to whit, the work must now also "be critically questioned and withstands this criticism only by being […] connected with the self-realisation of the individual. […] This places the unrest of modernity in the heart of the individual and thus in the heart of work" (Baecker 2007, p. 68).

Speaking of the late nineteenth century and early twentieth century, Luhmann ultimately diagnoses contrary developments: like Foucault, he observes a decline in individual-related theories owing to the new epistemologies of evolution theory, demography, life science etc. On the other hand, as ever: "With the innumerable variants to be found, the individual serves as the final reference. […] This does not take us beyond the theories of the nineteenth century, which claimed the individual for the self-regulation of the evolutionary process, thus for development theories that present themselves as theories of history" (Luhmann vol. 1, p. 432). He considered resorting to the "individual" concept in the late twentieth

century to be actually inadequate or even cynical, insofar as, against the background of self-operating functional systems and people being placed in a societal environment, it could now only function as compensation for their exclusion:

> In the social dimension, complexity grows on the basis of the operational exclusion from society of people, who are then dignified with titles such as "individual" or "subject." Individuals can no longer be placed socially in society because every functional system contemplates the inclusion of all individuals, but inclusion now relates only to the operations of the system in question. Society oscillates between positive assessment (subject) and negative assessment of the individual's prospects (*homme-copie*, *Massenmensch*). (Luhmann vol. 1, p. 101)

It is unclear whether what he is describing here is the "normal" and foreseeable functioning of late modern society systems under Luhmannesque premises or a particular pathological state of inclusive exclusion, such as through unemployment. Luhmann's theory indirectly expresses the fact that the single person can no longer understand himself/herself individually, describing the single person's participation in different functional systems with various divisions of assets: "Whoever observes actions will typically be able to attribute them to a number of systems, not least because the actor himself functions physically and mentally as the point of attribution and because an action can […] participate in several functional systems" (p. 9). Here, he is outlining capacity-related allocations of participation in various functional systems that would clearly be better reflected by "dividuation." As if recognising this, Luhmann, in spite of his statement that one cannot move away from individuality as a culturally produced, taken-for-granted factor, ultimately harshly criticises contemporary sociology for retaining the "individual" concept only for reasons of therapeutic concealment intentions. He believes that this emerges more blatantly than ever before today in the intention of, "protecting the individual against insight into his own insignificance as one among billions: he was after all a subject […] and had a right to be treated accordingly. It is no wonder that intellectuals, in particular, were loath to dispense with the word" (Luhmann vol. 2, p. 271).

He comments ironically on the tactic of self-revaluing that can be heard, then as now, in invocations of the 'individual' and 'subject' concepts. It is "a vote for autonomy and against heteronomy, for emancipation and against manipulation" (271). As nation-states come together in an economic—and increasingly political—European association, functional systems such as law or art that were previously specified nationally are forced to harmonise with the rationality systems of other nations, dividuating into legal compromise formulas and aesthetic hybrids, denigrated as "Europudding."

When certain more recent social theories, operating from an ecology and globalisation theory-expanded perspective, call for the social dimension to be defined not only in terms of verbal communication, but also incorporating "socially relevant uncommunicative content and events," they are in fact seeking to reintegrate certain values and processes attributed to the environment by Luhmann. They do this in terms of discussing precisely that dimension of (in)equality that Luhmann wants to see excluded in order to achieve values-neutral description of the social constitution. Ludger Pries himself emphasises the difficult assumption arising from incorporating artefacts and symbol systems produced by human beings in social contexts: it means there can be nothing outside of society. On the other hand, if one excludes all artefacts and symbol systems from examinations of society, one has "a truly strange 'cerebral' society with no reference to extension in terms of spatial area" (Pries 2008, p. 46). But if one takes into account "the social as mobility" as demanded by John Urry (Urry 2001, 2) and more recently by Ulrich Beck (which inevitably extends beyond the particular society), we are speaking of dividuating processes of world society-becoming, which, owing to the large number and over-complexity of the participation processes, can no longer be described other than approximately. The world society perspective brings unknown interdependence and participation processes into view whose only relatively determinable character is equally plain, depending on the perspective chosen, on the framing and duration of observation, on the selection of the *passioneur*-actors, their currents of movement and mutually nourishing affect communication.

The sociologist Ulrich Beck defines the transition from the first modernity of the nation-state to the second "cosmopolitan" modernity, whose

beginning he dates to the political upheavals of 1989, not least in terms of the resulting changes for the legal identity of the single person:

> Thus the transition from a nation-state world order to a cosmopolitan world order brings about a very significant shift from international law to human rights. The principle that *international law precedes human rights* which held during the (nation-state's) first age of modernity is being replaced by the principle of the (world society's) second age of modernity, that human rights precedes international law. […] The categorial principles of the first age of modernity—collectivity, territoriality, boundary—are replaced by a co-ordinate system in which individualization and globalization are directly related to each other and establish the conceptual frame for the concepts of state, law, politics and individuals which have to be re-defined. (Beck 2000, p. 83)

At the outset, it was mentioned that this gain in cosmopolitan modernity has been criticised by non-Western theoreticians as associated with a Western understanding of the individual unjustly considered to be general and rejected as a new form of colonisation of other understandings of the person. Fabien Eboussi Boulaga, for instance, criticises this understanding of human identity with some irritation, associating it with an exaggerated claim:

> Individualism—not just methodologically, but also ideologically and supposedly ontologically—is the vaunted fixed point of all social, political, moral and religious sciences. It is postulate, method, object and result, all in one. From this point, the individual is no longer merely the empirical subject of the word, thought, will, and invisible pattern of the human species […] but a reasoning being, a normative subject of institutions, moral, independent, autonomous and (significantly) non-social being. Thus, one is dealing with an ideal notion, a concept that reproduces the self-definition of a detached, boundary-drawing identity that understands itself, in relation to scientific determination of reality, as producer and product. […] Anything founded upon this out-of-proportion or "hyper-natural" individual refutes itself and becomes its opposite. (Boulaga 2011, p. 201)

Boulaga goes on to say that because the individual is "nothing," it inevitably competes with others to regard itself as valued, "thus abandoning

the most individual thing about itself to subjugate itself to the inescapable necessity of economic growth and power accumulation, outside of which no well-being can be found" (208). Even when the single actors might in principle be better protected, as they can call upon human rights independent of location, migrants and refugees who have set out from non-Western lands in particular appear unsettled by the globalisation process and more exposed to the conflict-related trials of world society: "Thus individuality is a result of overlaps and conflicts with other identities. […] Conflict becomes the driving force of integration. World society comes into being because it is divided. […] One chooses and weights different overlapping identities and lives on the strength of the combination" (Beck 2000, p. 92). This is how Beck describes the individual character of world society, although he also speaks of "instituted individuality," which means that ever more tasks and responsibilities previously shouldered by the nation-state are today transferred to single persons, who must construct themselves biographies consisting of ever more open-ended participations. The lack of overarching systems to discharge the duties of giving meaning and security obliges them to manage *raison d'être* and risk for themselves. I would object that a de-individualising trend can be discerned even in this enforced multi-directional participation through the individual having to find a way even in the globalised world's uncertainty, with ever more intricate management of his/her own requirements. He emphasises the factor of suffering produced by the necessity of deciding and the agony of choice, from a dearth of knowledge and a mistrust of the supposed expert systems. Alienation, disorientation, "*unrooting without re-rooting*—this is the tragic formula for the dimension of individualisation in the world risk society" (Beck 2007, p. 67). Because the necessity to become experts on leading their own lives is linked to compulsory all-round information absorption, progressively increasing competence and increased participation in differing reality dimensions, I see single persons incessantly dividuating. Beck's recent focus on ecological/global contexts allows him to problematise the status of nation-state individuality and the undividedness of its decisions. The fact that decisions on the environment made in one state have an impact on far distant locations and may have a long-term impact on persons not involved in making the decision causes

him to relativise his "individual" concept and outline new transnational modes of subjectivation, which he calls boundary existences.

Finally, the philosopher Paolo Virno (Virno 2004) looks for new designations for human subjectivations in an era dominated by what he calls "cognitive capitalism." Extending Deleuze's and Guattari's emphasis on the pack, he develops, jointly with Toni Negri and Michael Hardt, a theory that engages with the "multitude" and its duplication in language games, forms of life, ethics, and (re)production practices. The multitude "occupies a middle region between individual and collective" (25): "The multituede is a *mode of being*, the prevalent mode of being today: but, like all modes of being, it is *ambivalent*, or, we might say, it contains within itself both loss and salvation, acquiescence and conflict, servility and freedom" (26). Critically, Virno focuses on groups that are not composed of atomised and discrete individuals, and do not form a homogenous and identical collective. Presumably out of a desire to distinguish personal or group-specific differences, even singularities, he actually calls the combination of the "many as many" an individual, his terminology thus failing to do justice to the new (co-)divided attachments of the many, which produce dividual subjectivations that converge neither at "I" nor at an identical "we." Similar to Simondon, he also attributes the cohesion of the many to pre-individual and generic origin factors and to divided abilities, shared languages, pre-individual production relationships, and what Marx called the "general intellect." The "general" aspect of this intellect results from its ties with the "public sphere," as a "republic" or "political community" (41) in the same sense as the political public sphere called for by Hannah Arendt. Knowledge societies and their digital communication methods make production and action increasingly indiscernible: they introduce self-reflexive factors into knowledge generation, which also become analogous to political action and virtuoso art making in terms of dependence on others: "Every political action, in fact, shares with virtuosity a sense of contingency, the absence of a 'finished product,' the immediate and unavoidable presence of others. On the one hand, all virtuosity is intrinsically political" (53). Work in the Western world, today focused less on product making than on affective and cognitive services in the globalised space, admittedly also presupposes a global division into productive and cognitive/non-productive work on a North-to-South axis. To

respond to this, Virno hopes that the general intellect will become a virtual general understanding, a kind of musical score for everyone which is actualised in a different way by everyone in communication, acts of abstraction, and self-reflection. As this actualisation is tied to types of affection, of mediation and transferral, response and correction, it produces what I would call dividual subjectivations and condividual knowledge dispositives, complete with a demand for continued communicated/co-divided further modelling.

Notes

1. "Ille (Demokrit) atomos quas appellat, id est corpora individua propter soliditatem, censet in infinito inani, in quo nihil nec summum nec infimum nec medium nec ultimum nec extremum sit, ita ferri, ut concursionibus inter se cohaerescant, ex quo efficiantur ea, quae sint quaeque cernantur, omnia; eumque motum atomorum nullo a principio, sed ex aeterno tempore intellegi convenire;" s. Marcus Tullius Cicero, De finibus bonorum et malorum, Latin-German, Munich/Zürich 1988, I, 17, pp. 20–21.
2. For his part, Etienne Balibar emphasises the passive-active constitution of the Spinozistic individual-composite: "I take it to be a very general formula in which all the processes of transition between passivity and activity are included, inasmuch as they are causal processes. Since the 'effect' which is indicated is an action, there is a clear suggestion here that, although individuals (especially human individuals) are both passive and active, the natural tendency of an individual's existence is towards activity," in: *Spinoza: From Individuality to Transindividuality*, A lecture delivered in Rijnsburg on May 15, 1993; in: http://www.ciepfc.fr/spip.php?article236.
3. In the German language, the individual is neutral ("es"); in the English translation the personal pronoun used is "he" which of course brings an erroneous identification of the different individual processes with the male sex.
4. "It is subject, wherein is individuality just as much *qua* individual, or *qua* this, as *qua* all individuals: and it is the universal, which has an existence only as being this action of each and all, and gets an actual reality in that *this* consciousness knows it to be its own individual reality, and the reality of all." https://www.marxists.org/reference/archive/hegel/works/ph/phc1ca.htm

5. Karl Marx (Frederick Engels: Grundrisse, *Critique of Political Economy*, New York/Toronto, 1973; The production of social individuals is again declared dependent on the "appropriation of nature" (87), with Marx recognising various appropriation processes. Production as a "general law of nature" is joined by distribution, exchange and consumption, in which the conventional positions of subject and object are switched and various mediation processes are restored: "The person objectifies himself in production, the thing subjectifies itself in the person; in distribution, society mediates between production and consumption in the form of general, dominant determinants; in exchange the two are mediated by the chance characteristics of the individual" (89). He outlines a circulatory system of inseparable processes for disposal of the single entity and the return to the same, which results in new forms of production and consumption: "The individual produces an object and, by consuming it, returns to himself, but returns as a productive and self-reproducing individual. Consumption thus appears as a moment of production" (94). This also applies from the perspective of society: distribution produces relationships between single persons, with production instruments, working conditions and products, making it possible that "an individual who participates in production in the form of wage labour shares in the products, in the results of production, in the form of wages" (95); Marx/Engels, "Grundrisse der Kritik der politischen Ökonomie", in: complete edition (MEGA), II, 1.1, Berlin 1976.
6. "Or comme c'est du degré de la volonté que dépend l'usage de la force, et que la force absolue de Gouvernement ne varie point, il s'ensuit que le plus actif des Gouvernements est celui d'un seul" (401); Jean-Jacques Rousseau, Du contract social, p. 401.

References

Adorno, Theodor W.: "Erziehung – wozu?" in: *Erziehung zur Mündigkeit*, Frankfurt a.M., 1973, pp. 105–119.

Adorno, Theodor W.: "Individuum und Staat," in: Rolf Tiedemann (ed.), *Vermischte Schriften I* (Gesammelte Schriften, Vol. 20.1), Frankfurt a.M., 1986, pp. 287–292.

Adorno, Theodor W.: "Philosophische Elemente einer Theorie der Gesellschaft (1964)," in: Rolf Tiedemann (ed.), *Nachgelassene Schriften, Abteilung VI, Vorlesungen*, Vol. 12, Frankfurt a.M., 2008.

Adorno, Theodor W.: *Probleme der Moralphilosophie*, Frankfurt a.M., 1966, p. 261.

Adorno, Theodor W. trans. Jamie Owen Daniel: *Discourse*, Vol. 12, No. 1, A Special Issue on Music, Fall–Winter), 1989–1990, pp. 45–69. http://www.verlaine.pro.br/txt/adorno-on-jazz.pdf

Althusser, Louis: *Sur le contrat social*, Paris, 2009.

Aquinas, Thomas: *De Ente et Essentia*, Translated as Aquinas *On Being and Essence*, Translation and Interpretation, Adapted and html-edited by Joseph Kenny, O.P, 1965. http://dhspriory.org/thomas/DeEnte&Essentia.htm

Arendt, Hannah: *Origins of Totalitarianism*, San Diego, New York and London: A Harvest Book, 1958.

Aristotle: *Categories. On Interpretation, Prior Analytics*, Cambridge, 1962.

Aristotle: *The Metaphysics, Books I–IX*, London and Cambridge, MA, 1933.

Aristotle: *On the Soul/Parva Naturalia//On Breath*, London and Cambridge, MA, 1936.

Aristotle: *Peri psyches/De anima*, trans. J.A. Smith, Oxford: Clarendon Press, 1931. http://classics.mit.edu/Aristotle/soul.1.i.html

Bacon, Roger: *Three Treatments of Universals*, Binghamton and New York, 1989.

Baecker, Dirk: *Studien zur nächsten Gesellschaft*, Frankfurt a.M., 2007, p. 68.

Balibar, Etienne: *Spinoza: From Individuality To Transindividuality*, A lecture delivered in Rijnsburg on May 15, 1993; in: http://www.ciepfc.fr/spip.php?article236

Balibar, Etienne: *Gleichfreiheit*, Frankfurt a. M., 2013.

Beck, Ulrich: "The Cosmopolitan Perspective: Sociology of the Second Age of Modernity," *The British Journal of Sociology*, Vol. 51, No. 1, January/March 2000, pp. 79–105.

Beck, Ulrich (ed.): *Generation Global*, Frankfurt a.M., 2007.

Boulaga, Fabien Eboussi: *L'Affaire de la philosophie africaine*, Karthala, Editions Terroirs, 2011.

Brecht, Bertolt: *Brecht on Theatre: The Development of an Aesthetic*, Bloomsbury Publishing, 2014.

Canetti, Elias: *Crowds and Power*, New York: Continuum, 1960; Masse and Macht, Frankfurt a.M., 1980.

Cicero, Marcus Tullius: *De finibus bonorum et malorum*, Loeb Classical Library, 1931. http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Cicero/de_Finibus/1*.html

Darwin, Charles: *The Descent of Man, and Selection in Relation to Sex*, London, 1989.

Deleuze, Gilles: *The Fold: Leibniz and the Baroque*, trans. Tom Conley, first published by Athlone Press in Britain, 1993.

Deleuze, Gilles and Guattari, Félix: *A Thousand Plateaus. Capitalism and Schizophrenia*, Minneapolis and London: Univ. of Minnesota Press, 1987.
Diels, Hermann (ed.): *Die Fragmente der Vorsokratiker*, Vol. 2, Berlin, 1956.
Durkheim, Emile: *The Elementary Forms of Religious Life*, New York, 1912.
Durkheim, Emile: *Division of Labor in Society*, New York, 1965.
Durkheim, Emile: *The Rules of Sociological Methods*, New York, 1982.
Elias, Norbert: "The Society of Individuals" (1939), in: Norbert Elias (ed.), *The Society of Individuals*, Oxford, UK, 1991, pp. 3–65.
Fichte, J.G., trans. William Smith, John Chapman: *The Characteristics of the Present Age*, trans. London, 1847.
Fichte, J.G., trans. William Smith: *On the Nature of the Scholar and Its Manifestations*, 1845. https://books.google.com.np/books/about/On_the_Nature_of_the_Scholar_and_Its_Man.html?id=t_UDAAAAQAAJ
Fichte, J.G.: *On the Vocation of Man*, trans. W. Smith, 1848. https://archive.org/details/vocationmantrby00fichgoog
The Cambridge Companion to Fichte, David James and Günter Zöller, (eds.), Cambridge University Press, 2016. https://books.google.co.uk/books/about/The_Cambridge_Companion_to_Fichte.html?id=d-2SDQAAQBAJ&redir_esc=y
Foucault, Michel: *"Society Must Be Defended": Lectures at the College de France, 1975–1976*, trans. D. Macey, 2003. http://rebels-library.org/files/foucault_society_must_be_defended.pdf
Freeman, Kathleen (tr.): *Ancilla to the Pre-Socratic Philosophers: A Complete Translation of the Fragments in Diels,* Fragmente der Vorsokratiker, Harvard University Press, 1948.
Freud, Sigmund: "Introductory Lectures On Psycho-Analysis, Lecture XXIII," in: *Complete Works*, 2000, pp. 3417–3430.
Freud, Sigmund: "The Ego and the Id," in: Sigmund Freud (ed.), 1923, pp. 3946–3992.
Freud, Sigmund: "Group Psychology and the Analysis of the Ego," in: Sigmund Freud (ed.), 1921, 3765–3836.
Galen, trans. K. Freeman: *Ancilla to the Pre-Socratic Philosophers: A Complete Translation of the Fragments in Diels,* Fragmente der Vorsokratiker, Harvard University Press, 1948.
Gerhardt, Volker: *Individualität. Das Element der Welt*, Munich, 2000, p. 171.
Graeber, David: *Debt. The First 5000 Years*, New York, 2011.
Habermas, Juergen: "Individuierung durch Vergesellschaftung. Zu George Herbert Meads These der Subjektivitaet," in: Juergen Habermas (ed.), *Nachmetaphysisches Denken*, Frankfurt a.M.: Suhrkamp, 1988, pp. 187–241.

Habermas, Jürgen: Individuation through Socialization: On George Herbert Mead's Theory of Subjectivity, in: J. Habermans, *Postmetaphysical Thinking: Political Essays*, Cambridge: Polity Press, 1992.

Habermas, Jürgen: *Postmetaphysical Thinking: Between Metaphysics and the Critique of Reason*, John Wiley & Sons, 2015. https://books.google.co.uk/books?id=HmOzCgAAQBAJ&dq=%E2%80%9Cconstructivistic+concept+of+synthesis%22&source=gbs_navlinks_s

Hegel, G.W.F.: Lectures on the History of Philosophy, 1825–6, Vol. I, Robert F. Brown (ed.), Oxford and New York, 2009; Vol. II, Oxford and New York, 2006. https://monoskop.org/images/2/28/Hegel_GWF_Aesthetics_Lectures_on_Fine_Art_Vol_2_1975.pdf, p. 624.

Hegel, G.W.F.: *Phänomenologie des Geistes*, Frankfurt a.M., 1973.

Hegel, G.W.F.: *The Phenomenology of Mind*, Preface, § 28, trans. J.B. Baillie, 1910. https://www.marxists.org/reference/archive/hegel/works/ph/phprefac.htm

Hegel, G.W.F.: *Phenomenology of Spirit*, trans. Miller, A.V., Delhi 1998 kvk.bibliothek.kit.edu, 20.4.2017 https://www.marxists.org/reference/archive/hegel/works/ph/phc1ca.htm

Hegel, G.W.F.: "Vorlesungen über die Philosophie der Geschichte," in: *Sämtliche Werke*, Vol. 11, Stuttgart-Bad Canstatt 1971 https://monoskop.org/images/2/28/Hegel_GWF_Aesthetics_Lectures_on_Fine_Art_Vol_2_1975.pdf

Hegel, G.W.F.: *Lectures on Fine Art*, Vol. II, trans. T.M. Knox, Oxford: Oxford University Press, 1975.

Hobbes, Thomas: *Leviathan*, Cambridge, NY, 1991, p. 62.

"Individuum, Individualität," in: *Historisches Wörterbuch der Philosophie*, Darmstadt, 1976.

Kierkegaard, Soren: *Either/Or*, Translated by David F. Swenson and Lillian Marvin Swenson, Volume I, Princeton, 1959. https://archive.org/stream/SorenKierkegaardEitherOr1843Wiki/Soren%20Kierkegaard,%20Either-Or%201843%20Wiki_djvu.txt

Kracauer, Siegfried: "The Mass Ornament," in: ibid., *The Mass Ornament. Weimar Essays*, Thomas Y. Levin (ed.), Cambridge, MA, 1995, pp. 75–89.

Leibniz, Gottfried Wilhelm: *Discourse on Metaphysics and the Monadology* (trans. George R. Leibniz trans. Montgomery 1992), Prometheus Books, 1992 (first published by Open Court, 1902). http://www.anselm.edu/homepage/dbanach/Leibniz-Discourse.htm

Locke, John: *An Essay Concerning the True Original Extent and End of Civil Government*, Dublin, 1798

Lucretius: *De rerum natura (Latin-German), Book 2*, Düsseldorf and Zürich, 1991, Seneca, Nat. quaest. V 2 D.; quoted in Diehls, p. 168.

Luhmann, Niklas: *The Theory of Society, Volume 1*, trans. Rhodes Barrett, Stanford University Press, 2012.
Luhmann, Niklas: *Theory of Society, Volume 2*, trans. Rhodes Barrett, Stanford University Press, 2013.
Macpherson, C.B.: *The Political Theory of Possessive Individualism*, Oxford, 1962.
Marx, Karl: Capital, Vol. I, in: *Collected Works*, Vol. 35, New York, 1996; Das Kapital I, in: MEW, Vol. 23, Berlin 1986, p. 54.
Marx, Karl, Engels, Frederick and Grundrisse: *Critique of Political Economy*, New York and Toronto, 1973.
Marx, Karl and Frederick Engels: *Theses on Feuerbach*, trans. W. Lough, first published 1988, Moscow, USSR: Progress Publishers, 1969. https://www.marxists.org/archive/marx/works/1845/theses/theses.htm
Marx, Karl and Engels, Frederick: Die Deutsche Ideologie, in: Marx-Engels, Complete Edition, Section I, Vol. V, Glashütten i, Taunus, 1970b, pp. 7–67.
Marx, Karl and Engels, Frederick: The German Ideology, in: Collected Works, Vol. 5, 1845–47, Moscow, 1976, pp. 19–530.
Marx, Karl and Engels, Frederick: "Grundrisse der Kritik der politischen Ökonomie," in: Complete Edition (MEGA), II, 1.1, Berlin 1976 in: Critical Study Edition, Vol. 1, Colli and Montinari (eds.), Munich, 1967/77, pp. 9–156.
Marx, Karl and Engels, Frederick: *Capital: A Critique of Political Economy*, Vol. 1, New York, NY: International Publishers, (1887) 1967.
Mill, John Stuart: "M. de Tocqueville on Democracy in America," in: *On Politics and Society*, Hassocks, 1976.
Mill, John Stuart: "Of Individuality, as One of the Elements of Well-Being," in: J.S. Mill, 1859, pp. 248–272.
Mill, John Stuart: *On Liberty: A Translation into Modern English, Industrial Systems Research*, 2013. https://books.google.co.uk/books?id=89BJlclA6qUC&source=gbs_navlinks_s
Nietzsche, Friedrich: *The Birth of Tragedy/Die Geburt der Tragödie*, 1967/1977. http://cnqzu.com/library/Philosophy/neoreaction/Friedrich%20Nietzsche/Friedrich_Nietzsche%20-%20The_Birth_of_Tragedy_and_Other_Writings_(Clearscan_1999).pdf
Nietzsche, Friedrich: *The Genealogy of Morals*, Courier Corporation, 2012.
Nietzsche, Friedrich: *On Truth and Lying in a Non-Moral Sense*, 1999. http://cnqzu.com/library/Philosophy/neoreaction/Friedrich%20Nietzsche/Friedrich_Nietzsche%20-%20The_Birth_of_Tragedy_and_Other_Writings_(Clearscan_1999).pdf
Novalis: *Das Allgemeine Brouillon*, Hamburg, 1993, No. 952.

Novalis: *Notes for a Romantic Encyclopaedia*, SUNY Press, 2012.
Novalis: *Philosophical Writings*, SUNY Press, 1997.
Ockham, William of: *Probleme der Metaphysik*, German and Latin, Freiburg im Br., 2012, pp. 104–105.
Ott, Michaela: *Affizierung. Zu einer ästhetisch-epistemischen Figur*, Munich, 2010.
Pries, Ludger: "Transnationalisierung und soziale Ungleichheit," in: Peter A. Berger and Anja Weiss (eds.), *Transnationalisierung sozialer Ungleichheit*, Wiesbaden, 2008, pp. 41–64.
Röd, Wolfgang: *Die Philosophie der Antike 1. Von Thales bis Demokrit*, Munich, 1976, p. 195.
Rousseau, Jean-Jacques: *Discours sur l'inégalité/Über die Ungleichheit*, In: K. Weigand (ed.), Hamburg, 1995.
Rousseau, Jean-Jacques: Inquiry into the Nature of the Social Contract or Principles of Political Right, London, 1903; Du contract social ou principes du droit politique, in: Oeuvres complètes, III, Paris, 1964, pp. 351–470.
Schelling, F.W.J.: "Erster Entwurf eines Systems der Naturphilosophie" (1799), in: *Werke* 7, Stuttgart, 2001, p. 90f.
Schlegel, Friedrich: Transzendentalphilosophie (1800), in: *Kritische Friedrich-Schlegel-Ausgabe*, Munich, 1958ff, XII.
Schopenhauer, Arthur: *Die Welt als Wille und Vorstellung II*, Zürich, 1977.
Simmel, Georg: *The Sociology of Georg Simmel*, ed. and trans. Kurt H. Wolff, Simon and Schuster, 1950.
Simmel, Georg: *Das Individuum und die Freiheit*, Berlin, 1984.
Smith, Adam: *Theory of Moral Sentiments*, London, 1907.
Smith, Adam: *The Wealth of Nations*, The Glasgow Edition of the Works and Correspondence of Adam Smith, Vol. 2a, 1976.
Spinoza, Benedict de: *Ethics*, Thomas Deegan (ed.), trans. George Eliot, Salzburg, 1981.
Strickland, Lloyd (ed.): *Leibniz's Monadology. A New Translation and Guide*, Edinburgh: Univ. Press, 2014; The numbers in brackets refer to the paragraph in the text.
Tarde, Gabriel: *Monadology and Sociology*, Translated and edited by Theo Lorenc, Melbourne, 2012. http://re-press.org/book-files/9780980819724-Monadology_and_Sociology.pdf
Tarde, Gabriel: *The Laws of Imitation*, New York, 1903.
de Tocqueville, Alexis: *Democracy in America*, New York and London, 1947.
Urry, John: *Sociology Beyond Societies*, London, 2001.
Virno, Paolo: *A Grammar of the Multitude*, New York: Semiotext(e), 2004.

3

Dividuals/Dividuations

Today, new insights into individual persons' voluntary and involuntary participation in biotic masses and ecological ensembles, in world society's re-orientations and in technological practices all create a need to redefine human subjectivations. Today, we presume that we stand and have always stood (but increasingly in modernity) in relationships of interpenetration—generally unconscious, unreflected relationships with languages, images, sensory technologies, with animal, plant, climatic, and cosmic values—that question the understanding of human identity and its assumption of unmistakability, indivisibility, and autonomy, and also the differentiation of biological species, the demarcation of nations and cultures, and, ultimately, the defining of artworks as self-contained entities. Since we are ineluctably linked with bio- and socio(techno)logical processes insofar as we can logically distinguish these, and they are for the most part also taxonomically distinguished yet cannot be separated from us without endangering our further existence and our psycho-physical consistency, we find ourselves faced with the task of considering, affirming and moderating our possibly contradictory participations. The insight into epistemologically and qualitatively different participation that produces new subjectivations—participation that affects us and

M. Ott, *Dividuations*, DOI 10.1007/978-3-319-72014-2_3

directs us, co-constitutes us and sometimes involuntarily possesses us, but is also desired by us and frenetically pursued—force us to rethink our self-identity in terms of "the individual." The fact that—thanks to refined technologies and a greater alertness to ecological connections—we today recognise our origin in participation of a varied, material and immaterial type, imposing a multiple orientation and competencies development that empowers us to be what is known as human persons is something that we may judge either as a gain or an excessive burden. We recognise that our self-identity as "individual," as undivided entity, expresses a misleading negation of necessary, life-constituting participation and, as a Latin translation of the Greek "atom," is as unsatisfactory as the now discredited assumption that the atom is indivisible. Instead, we must learn to recognise that undividedness—or subdividedness—is a question of the scale of our observation modes, and that everything our eyes perceive as complete and undivided only reflects a mode of human perception, with limited validity.

Not least, we must recognise that the term "individual'—once used in the search for the universe's smallest physical building blocks—did not fuse with the single human person until the late seventeenth century, and thus is coupled with certain historical circumstances. From that point on, it was used for the theoretical/political development and promotion of the bourgeois single person—who increasingly had to represent the definitive model of humanity, as a socio-political actor, as owner of property and land, of one's own abilities, and as an independent person of business. The human individual's central position in the philosophy of the Enlightenment made it that liberal self-regent who, thanks to his various "capacities," orders the world according to his abilities and—in the art sphere—is even praised as that genius that prescribes laws for nature. Since today we can recognise that promoting this theoretical/political operator was in the interests not only of the bourgeois emancipation, but also the emergence of the nation-state, its non-interchangeable culture and imperialistic expansions, it appears urgently necessary to examine it under contemporary epistemic/political conditions. From a (post)colonial perspective, this understanding of the individual is criticised today owing to its universalised epistemic force and also from an ecological perspective owing to everything associated with the keyword

"anthropocene;" in response to human rights' codification in the UN charter, regional declarations of human rights reference different, more community-related understandings of the person.

The situation of those designated as "other" is now more acute; the attribution is relativised dependent on the defined considerations. The conventionally designated as different thus appear not to be different in every respect: for instance, we share a large percentage of our genetic information with non-human organisms, and non-human agents are active in the decoding of our genome. Technologically supported language and image communications and reproduction technologies co-model our self-image and language behaviour, our imaginations and our psycho-physical consistency. They take on search and orientation functions previously considered integral to *anthropos*, respond to interests by offering products to purchase, stimulate perception with sound and image information and aid orientation in space and time in the real, lived world. From digital communication, they extract indications of the opportunities and risks represented by the person; they assign humans to certain problem groups, forestall vulnerabilities by offering preventative measures, and thus may possibly influence longevity. Glad to be quit of the challenges of self-management, we allow ourselves to be helped, outsourcing our capacities, becoming more similar in the minimal activity of clicks, reducing our communicative competence to exchanging short messages, and integrating ourselves into virtual social assemblies. These practices alone should persuade us to understand ourselves as participation-obsessed and as virtuosos of self-division, as divided by/partaking in countless others and necessarily co-embedded in unknown ensembles.

The interwovenness of the human existence with countless others (some non-human) increases the difficulty of deciding where the boundary lies between single persons and others, between causation by others and self. It also makes it clear that it is not only human subjectivations for which the designation "individual" is inappropriate. Thanks to ever improving observational data on interdependencies between bio- and socio(techno)logical processes and the perception of inseparability, we also recognise that single organisms in general can only be investigated alone and "in themselves" through artificial isolation, and that the epistemological detaching of social ensembles and specific cultures serves specific epistemic power interests. Singling out, isolation, individuation reveal themselves to be in any case

part of strategies of privileging and hierarchisation, which, because they reduce complexity, show as invalid for diagnosing contemporary human subjectivations and changing relationships in a global society.

The epistemologically and ethically inadequate concept of the individual should thus be replaced by the term "dividuation:" dividuation is intended to put the focus on the processual, non-terminating and delimitable (self) division of the human individual both through voluntary participation and involuntary subdivisions and appropriations, and thus participations judged as positive and negative alike, concerning which our decision making is limited and whose necessity and selectability (or rejectability) it is our task to recognise. After all, thanks to improved micro-insights, we can today recognise our micro-structural dividuatedness, our fated dependence on non-human others, but also the lengthy genesis we share with them, gaining new insights into ourselves and the world from this inseparability. The same is true of our embedding in the socio-technological field.

Dividuation in this case describes a relationship to self that is expanded to include passive dimensions resulting from increased insight into the co-determinate nature of human ation by greatly differing others, which imposes a new task, not just of being aware of participation, compulsions and lures, but also of selecting, co-ordinating, and interrupting them. The advantage of the individual self-relationship in terms of insight and action consists in being able to research availabilities and modalities of participation, and to initiate, interrupt, or, where possible, to modify connections by consciously choosing or refusing participation. These multi-directional orientations and embeddings can be experienced as an increase in capabilities or a psychological strain and excessive distraction of attention; one must be aware of the challenges implicit in participation and moderate them ever more precisely. For dividual consciousness ultimately demands that we understand all these lateral ties as an opportunity for as yet unthought-of (eco)policies, and resisting unwanted appropriations through affirmed "condividuations."

Quasi-Ontology of Participation

In accordance with eco(techno)logical and epistemologically expanded perspectives, numerous philosophers today are saying that, rather than accepting as valid only the reality registered by human beings, we should

speculate on virtual dimensions of the real, admitting these speculations, in principle, in the spirit of de-anthropomorphising knowledge. For instance, Wolfgang Welsch (2012) criticises the narrowing of the real to the anthropomorphic perspective as epistemologically and ethically destructive because it underestimates the interwovenness of the human spirit with other spheres and significantly reduces our relationship to the world. In the epistemological central placement of humanity, he sees, *not* the Copernican shift attributed by Kant, but the reversal of what the Copernican shift from a geocentric to a heliocentric model initiated.

Contemporary biologists likewise see themselves obliged, from a biodiversity perspective, to argue less from single organisms than from vital interdependence-contexts and diversity-fostering courses of development, to expand the field of investigation and overview. In view of environmental problems, there is an urgent need for increased co-incorporating of non-human factors and granting them a not merely functional right to exist in human existence. Additionally, science theorists say we should take into account the epistemological consequences of technological changes to observation processes by acknowledging that different results are produced depending on optical focus, on time frame, and factors taken into account. Likewise, different "natural-cultural" interrelationships are opened up, causing Bruno Latour to call for a "physical sociology" (Latour 2010).

Gilles Deleuze's dual terminology of "virtual/actual" reality would appear to be the most suitable philosophical justification for this expanded reality relationship (Deleuze 1994, ch. 2). His achievement consists of making conceivable two sides or two modes of the real and thus its (self) change, its switching between a virtual and an actual mode not differing in reality, but with a different status of the real (latent or actual). They are in a repeating relationship to one another, so that neither can be considered to come first or to precede the other. Thus, each is the precondition for the other, each bringing forth the other in a circulation of ongoing reality-transitions. This double-sidedness includes the assumption that the virtual is on the one hand a given, and, on the other hand, revealed only in its actualisation. Ultimately, Deleuze equates this virtual/actual double-sidedness with the twofoldness of time and its (self) transformation, insofar as it affects itself in the non-terminable (self) repetition of its virtual endlessness, and actualises itself in a different temporal mode in

each case. If one does not assume any external causation of temporality, the virtual can only be realised out of itself and "in" itself, in already existing, actualised time. To allow actualised time to pass, however, it must virtualise itself, in order to then actualise itself in new time syntheses. Time thus becomes recognisable as the first figure of dividuation, insofar as it subdivides itself as endless future/past through repetition and new synthesis, participates in itself and, in doing so, differentiates itself with no possibility of conclusion. In its dividual shift with regard to itself, it becomes the quasi-justification and condition for the possibility of all further temporal participation. Deleuze then applies this epistemological model of (self)constitution and subdivision to other geneses: that of the organic in general and of humanity in particular. Since the virtual is endlessly differential, because time itself is, Deleuze emphatically insists that its actualising repetition always signifies the bringing-forth of difference, of the unknown and new. He explicitly makes use of the dual terminology of virtual differentiality and actual differentiation of the real, the Aristotelian schema of potentiality and act, of capacities and their actualisation, of primal and reproduced image (that foresees a becoming-identical with the self's faculties) to inject a necessary (because time-linked) transformation and to make conceivable the advent of that which has not hitherto been present.

Deleuze's paired terms "actual" and "virtual" are the foundation of a quasi-ontology, replacing conventional ontologies of being (that aim to found and identify all existing things in unchangeable being) with the assumption of ineluctable temporality and of modal twofoldness of all that exists. "Becoming-other" and time-linked transformation now shift into the centre of observation and evaluation. I call this attempt at a self-founding of the real and time "in" time a quasi-ontology, because, as time-shift, it can never, in itself, coalesce into a logic of being, an ontology in the classical sense. And yet it does offer a self-grounding—albeit a paradoxical one—to take into account the notion of a non-specifiable beginning. This founding of time in time does not necessarily produce something self-identical, but it does produce differential participations of processes in each other: "unfoldings through one another" (Latour). Every temporal beginning taken as such immediately invalidates itself, because it becomes recognisable as participation in an endless virtual

sequence and thus as a factor in a difference-forming basis. Deleuze repeatedly cites "becoming-green" as an example, since it returns seasonally and is visible to the extent to which plants realise their photosynthesis within time. Due to the assumed continuum between virtual and actual reality, participation presents as a passive/active process, as necessary (self)affection and repetition with a view to minimally different production. This complicates itself dependent on research penetration of the pre-existing and the actualisation of virtual potentiality.

What is significant about Deleuze's concept of reality—epistemologically, aesthetically and ethically—is that he situates becoming-world at the fracture point between quasi-ontological compulsory participation and participation modification. For, thanks to the necessary movement between differential outset facts (temporal infinity) and actualised participation (presentification), endless participation variants are in principle conceivable; these realise themselves in personal subjectivations, in new bio-social collective formations and in subdivided/undivided art practices. When the participation condition is affirmed and made productive through actualisations (each of which is different), it can result in multiplications and new creations in the social and biological realms alike, in ecological ensembles and artistic compositions.

The ongoing interplay between various conditions of the real in any case undermines the epistemological opposition of self and other; the dividuation heading foregrounds transitions, switches, reciprocal bringing-forths, or dependencies between hitherto distinct entities. Any possible talk of individuality also becomes invalid, because the values which are understood as being undivided are now presented with reference to others and in time-linked difference-from-self. Divisions of human abilities and participation forms are emphasised, as are absorptions and distributions of perception and attention potentials. In the biological realm, dividuation presents the participation of different species in one another—species divided in conventional taxonomy nonetheless constituting a "self and same" that cannot be divided and continue to live. In the socio(techno)logical realm, it delineates culturally composite packs, culture-transversal commonalities and new media co-operations, but, additionally, problematises fragmented and forced dividual identity formations. Dividuation, it can be stated at this point, simultaneously

emphasises the epistemological and ethical gains resulting from the insight into global interdependencies and the necessity of sacrificing outdated self-identities and the dangers resulting from political or economic participation compulsions or identity-oriented forced assignments.

Transindividuality and Condividuation

The concept of dividuation is thus also to be understood as the continuation and becoming more acute of that which Gilbert Simondon understood to be human "individuation" in 1964 (Simondon 1964). Back then, he shifted the accent from focusing on autonomous individuals to focusing on complex and problematic individuation processes of the single person and the associated necessary and precarious integration. Previously, Spinoza, in his *Ethics* (Spinoza 1999), thought of the human body as "composed of a great number of complex individual parts" (II, LS15), composed of solid, fluid, and gaseous individuals, which is in turn affected by external bodies. The human body appears here as a dynamic composite of multiply affected individuals which "stands in need for his preservation of a number of other bodies, by which it is continually, so to speak, regenerated" (II, Postulate 4). Similarly, Simondon criticises the "conclusive" and reductive concept of the individual as resting on false ontological premises, such as atomistic substantialism or Aristotelian hylomorphism. He views atomism as a conception unsuited to describing vital temporality processes and ontogeneses because it concerns itself only with fundamental physical units and their connection, and ties cohesive forces to elementary particles. Simondon, on the other hand, understands human individuation as the result of qualitatively diverse, overlapping, awkwardly spliced and high-tension processes, which, critically for our purposes, can only be synthesised into a single entity through elastic cohesion forces and permeable immunisations. This synthesising brings with it a merely "metastable" state in which the partial individuations progressively shift; they must balance their "incompatibility" relative to each other and recombine.

Even the process of inheritance is understood by Simondon not just as the actualisation of a specific genetic code, but as a problem-solving

strategy: the pairing of two pieces of genetic information, whose difference makes the reconfiguration possible, is not a "unification" or even "standardisation" that can be concluded. He explicitly distances this reconfiguration from Leibniz's understanding of the monads, as their substance already contains everything within itself and is supposed to develop it out of itself: "there is no singular essence of the individuised being/life form, as this is not substance, not monad: its whole development possibility is the result of its not being completely unified and systematised; a systematised being/life form […] could not develop itself."[1] In order to be able to develop itself in the first place, the single entity must bring together within itself qualitatively different operations and, to join them, most have in reserve the "addition operation" of the psyche. Simondon defines the individuation process as a multi-layered and non-concluding process, with physical and vital individuation said to provide a "pedestal" for psyche individuation. Through elastic binding, regeneration and reproduction forces, individual entities are lent a certain cohesion, duration, and possibility of reflexion back upon themselves, creating autopoietic capacities such as impulsiveness, affectability, and intellection. In their oblique and phase-dependent interconnection, these are said to take the single persons beyond themselves and into real associations with others. Simondon repeatedly emphasises that this unstable structure remains characterised by conflicting/incompatible forces, with only transitory reductions in tension: "The individuation must thus be understood as a partial and relative solution, which manifests itself in a system of hidden potentials and brings together a certain incompatibility with itself, and incompatibility of tension forces."[2] Every succeeding individuation is said to depend upon successful integration of new individuations: faced with this, why did Simondon not mention dividuation? After all, his further definitions also lead one to time-dependent dividual relationships. In fact he explicitly mentions the dangers of conclusion of the individual. Since the different individuations actualise themselves non-simultaneously, the single entity is never completely realised. Instead, it must continually battle to balance out its affective polarities and to harmonise its contrary needs for differentiation and integration. Simondon sees this conflictual constitution as the defining expression of viability, since an individual that responds exclusively to

itself and is closed to externals cannot reach beyond the boundaries of its fear—a statement possibly intended to distance himself from Freud and Heidegger's definition of fear as a basis affect or a mood fundamental to existential essentialising.

He sees the individuations that can shift in relation to each other as founded in processes he calls "pre-individual" that ontogenetically co-constitute the single person and are co-responsible for the person's inner unrest and mobility—possibly approximating to Freud's understanding of the unconscious. Owing to their genesis in these pre-individual multiplicities, single persons are forced to affirmatively repeat this at-outset differentiality for which purpose they must acquire a psychic dimension. Since others also participate in these pre-individual realities, they inevitably harmonise with others in a "trans-individual" problematics: "Entrance into psychic reality signifies entrance into a transitional stage, as solving the intra-individual psychic problematics […] takes one to the trans-individual level."[3] Human individuations find themselves bound to others in pre-individual participation, compelling intra-individual problem solutions and enabling their trans-individual orientation: just as psychic individuation stands in a "reciprocal" relationship to the collective, so do the "inner" individuations to the "external." Simondon accords single persons who transfer their transindividual orientation into real group formation "individuation in collective unity": "Individuation in the form of the collective makes the individual into a group individual tied to the group through the pre-individual reality that it carries within it; this reality, together with that of the other individuals, individuates as a collective unity."[4] Individuation is thus an event multiply shared with others, from a virtual starting point in the pre-individual to a potential transindividual actualisation as sociality. Owing to their genesis in and with heterogeneous and not merely "their own" material, the individual persons inevitably appear as non-divided entities, but as internally varied, torn this way and that and only precariously held together. Indeed, for this reason, they tend to orient themselves multi-directionally, engaging in diverse or even incompatible participations and coming together in collectives and condividuations. Their beginning in the pre-individual sphere actually enables their conscious stretching out into the transindividual. Thus, in my opinion, these mobile individuations would be better described as

dividuations, since their problematics are greater "than their own being," going beyond it and causing lateral connection with others. Today—with the addition of technological participation—they are lending themselves to inherently exceptionally mobile and still more precarious dividuations in the effort to join together their vital, physical, and psychic individuations as distinguished by Simondon.

In the continuation of Simondon's thinking, the concept of the transindividual appears to have experienced a certain meaning shift. In his *Individuation* text, he defines it as a form of bringing together capacities, claiming it attests to the systematic unity of the inner (psychic) individuation and the external (collective) individuation, but in *Du mode d'existence des objets techniques* (Simondon 1969) he explicitly distinguishes the thereby enabled "psycho-social world" from the "purely social" and the "inter-individual." The transindividual world is neither the social world composed by classes and processes of labour division nor the intra-individual world discussed in social psychology—what one might perhaps call a world resting upon processes of affection? Instead, in Simondon's more recent text, transindividuality proceeds from the technological connectivity aspect of individuations, from their invention and construction operations, and the use, regulation, and improvement of machines. Transindividuality:

> produces a connection between the invention and organisation capacities of multiple subjects. There is a reciprocal causality and occasioning relationship between the existence of the separated, non-alienated technical objects, which are deployed in a non-alienated modus, and the constitution of such a trans-individual relation.[5]

Under the trans-individual heading, he now sketches couplings of single entities via divided technical capacities and cultural techniques or—as one might extend it today—via technological communication that interconnects them. They lean upon one another, and, in the best case, come together in a higher capacity for information exchange, for generalised affect and intellect. Since the single persons are diverse in their participations, are thus co-constituted as diverse entities and never operate as undivided things, as individuals, instead interpassivising as divided things

and possibly complementing one another in their abilities or resolving the resulting tensions, I name them dividuations. Thus, I would say that they do not participate merely in a single trans(in)dividual, but are variously transdividually passivised and activated, and come together to form diverse condividuations that are, in the best case, self-reflexive and resilient.

The technological dispositives, however, set up their own transdividual group profiles, insofar as they filter out and compile specified types from the recorded data that are of interest because of their expressive or interconnective behaviour, their convictions, their consumer habits, or their communicated fears. Simondon reiterates that, because they must overcome their fears, single persons must resolve, as a tumultuous conflict within them, their inborn collective. Is this one of the reasons why so many today come together in "social" networks, thus turning their innermost emotions outward? Because, as "smart mobs" or "shit mobs," they can free themselves from isolation to participate in sharing the joys of others? Or does instant messaging and constant electronic connectivity in fact tell us that, in spite of continual confirmation through likes, the fear can never be lessened?

Again agreeing with Sigmund Freud's theory of the unconscious, Maurice Merleau-Ponty and Deleuze conceive of human genesis as a partial process of the quasi-ontology of time, and as a self-preceding and ever more complex synthesising process. In opposition to Kant and Husserl's assumptions of initially purely passive affect status relative to time, Merleau-Ponty states that, by constituting and repeating ourselves in unconscious time-syntheses, we are at once passive and active. Our intuition/perception as "primary" capacity does not result from a purely passive process of affection, as Kant suggests in the *Critique of Pure Reason*. Primary organic sensuality instead proceeds from pre-individual, not yet person-bound, energy and excitation differences, as Deleuze says in reference to Simondon in *Difference and Repetition*: from resultant tensions and dynamics and from contractions and increasing integrations in these initially non-co-ordinated processes. Deleuze outlines a process of mutual capture between organic sensation disposition and external and internal stimuli. In opposition to Kant, he sees the primary receptivity as coming with the formation of minimal "local egos" (97) and types of

"contemplations" (74) understood as minimally active. In the same way, the process of primary habit formation as configurations, bindings, and integrations of passive syntheses emerge in "a passive, partial, larval, contemplative and contracting ego. The Id is populated by local egos which constitute the time peculiar to the Id" (97). Analogous to time's immanent and transcendental genesis, he traces a process of increasing coherence formation, in which stimulation zones are stitched together thanks to the activity of the larva-like agents into ever larger areas and ultimately "transcend" themselves, creating a non-corporal surface of sense and sensuality, which, so to speak, reoccupies the primary pre-individual and impersonal elements "from above" and feeds on its continued actualisation.

Anthropogenesis is thus conceived as an expanding dynamic of contractions, integrations, reflexions, repetitions and difference formations. Deleuze believes that these in turn enable the memory synthesis linked to linguistic and pictorial symbolisations, and the subsequent more complex syntheses of reflexion in the active "I:" "The passive egos were already integrations […]; the active self is an attempt of global integration" (98). Thus, the formation of human capacities is shown as a non-concluding and tension-rich intensification and transformation process, which is always metastable and only conditionally coherent. Deleuze outlines an in-principle further modelling of capacities as the consequence of ongoing repetitions and re-affections, of intensification and of confrontation with a boundary at which the capacity experiences its own inability and is forced to transition into another. The *sentiendum* must make a kind of leap, transforming itself into the *percipiendum* and then into the *cogitandum*, into something that must be thought and at the same time cannot be thought. This assumption imposes a conception of single humans as non-concluded and in principle non-concludable subjectivations—all the more so when they reactualise their pre-individual primary multiplicities and draw fresh nourishment from them in order to extend the tumult of the many into, for instance, technological connections, and to combine with other articulations. The ever earlier age at which sensory formation processes are today coupled with socio-technologies poses the question of how far the necessary heightenings and higher-order complex integrations of partial dividuations can actually succeed, or how far old

capacities such as contemplation and memory can be made serviceable for other requirements today. We can be certain that the affective and perceptive capacities are today deployed to the disadvantage of concentration time, of reflexive processing and repetition in memory, thus initiating other dividuations.

As has been mentioned, the term "dividual" is used by Deleuze twice in different texts, once to characterise filmic processes, and once for contemporary human subjectivations, with a different affective value in each case. In *Postscript to Societies of Control*, (Deleuze 1992) he gives a historical date to dividual-becoming, equating its emergence with the media technology transition from analogue to digital, from the disciplinary system of territorial and systematically demarcated units to the control system of a technological and finance-capital-occasioned continuum of inseparable modulations and self-transformations: "controls are a modulation, like a self-transmuting molding continually changing from one moment to the next, or like a sieve whose mesh varies from one point to another" (178f.). The society of control imposes uninterrupted learning and unending self-modellings of single persons "in a state of constant metastability," (179) just as Simondon had previously characterised the constitution of human individuation. In the societies of control, metastability appears to become still more precarious, insofar as one is never finished with anything and reaches no conclusion: work becomes a permanent project, and anticipates the next such project. It appears almost as though Deleuze experiences his affirmation of temporality and transformation as a curse. After all, he complains that, in opposition to analogue systems that set up milieus largely independent of one another—even if they do seek to adapt to one another in line with an overarching norm—in the digital system, everything connects with, and is translatable into and computable with, everything else. Once again—but this time with a negative undertone—he sketches currents whose courses extend into one another, and curves whose courses depend upon one another and are representable on one another: the movement of finances is no longer separable from that of traffic and the circulation of goods, of communication and the pliability of the subjects. The rigid factory is replaced by the flexible company, with no location and no body. Instead it has a business idea; operated everywhere, divided into partialised production processes and carried out by

mobile migrant workforces. Employees are no longer paid by working grade, but by personal performance, so that every single person is in competition with every other and must focus on maximising performance. Continual incentives create a situation of continual probation, of constantly changing constellations and techniques. Thus, all in all, a shift is taking place towards the young: ready learners with no ties, who are entirely independent.

The fact that participation relationships of the single person are placed in a relationship to abstract and impersonal control powers and computing systems, are registered, directed, and intricately lent enhanced value by them, causes Deleuze to speak of new subjectivation modes: "We're no longer dealing with a duality of mass and individual. Individuals become '*dividuals*' and masses become samples, data, markets, or '*banks*'" (Deleuze 1992, p. 180). In this late text, he takes a gloomy view, sketching dividual-becoming as resulting from the registering of single persons and whole populations by privatised and economicised regimes of recording and allocation and the compulsion to be fluid and to fit, following the model of stock prices and currency devaluations. The single persons appear dividuated due to their reduction to statistical values, the imposition upon them of participation at all times and the modularising of their abilities and performance according to requirements, in a process of "distortion" of what an individual was previously supposed to be.

Brian Massumi (cf. Massumi 2015) takes Deleuze's sketch further by seeing the numerical controlling power itself developing varied procedures in order to generate new value creation processes. To achieve this, it even interferes in participation and affect processes, increasingly micro-capitalising them: the streaming or downloading of films, the reading of e-books, and electronic image processing are all on the account sheet. It responds to interest profiles with advertising and purchase suggestion strategies, which in turn awaken profitable desire potentials. Affect itself is intensified and diversified in order to add value. Ultimately, everyday movements and leisure activities also become forms of value creation, ever more micro-controlled, registered, processed, sold. The individual appears as a computable information potential, whose future development can be predicted and whose financial profitability can be estimated.

One objection to these analyses by Deleuze and Massumi is that dividuations did not first come into the world and become an expression of a non-autonomous constitution of single humans with digitalization. Spinoza's, Simondon's, Merleau-Ponty's and Deleuze's own statements indicate that, even under analogue conditions, human subjectivation is very much, in an epistemological-criticism sense, frequently understood as dividuation, even if not given that name. It was not technological changes and the opportunities offered by a capitalising of our lives in small steps that first taught us our interwovenness with and conditionality upon countless others. Single persons prove themselves to be dividual based on constitutive participation in percepts and affects shared with others, in languages, cultural techniques, ways of thinking, in symbolic and economic sociation processes, but also in biotic masses, ecological ensembles, global catastrophes, and countless non-human processes. It is true that technological settings reinforce our willingness to participate in our fated capture and make it more evident, adding to this new aspects and very plainly revealing that the single person has never been an individual. Since the single person's indissolubility from bio- and socio-technological structures and globalised processes has become still more striking thanks to refined examination instruments, the need to sacrifice the old characterisation as undivided and find a more adequate substitute has become inescapably pressing.

In his cinema books, (Deleuze 1986 and 1989) Deleuze outlines a positive understanding of the dividual. Speaking of what determines filmic framing, in particular of the "affection image," he says that the width and mobility of framings modifies the captured and framed aesthetic "ensemble" and thus, always, the expression of the image; the autonomous soundtrack also changes the atmosphere and affect value of single shots and the whole film, and they continually divide aesthetically in different ways. Thus, Deleuze reads the time-dependent filmic articulations as non-divided transition manifestations between actual and virtual image: they represent no measurable nor clearly determinate "divisible or indivisible, but 'dividual'"(14). Filmic unfolding in time—its constantly changing image and sound composition—cannot be called individual, as it never crystallises lastingly into an expression that can be established and characterised unambiguously, especially in its digital computation pro-

cess. But in its analogue form also, it is characterised as an audiovisual interchange between virtual and actual conditions and, all in all, as dividual articulation: "Here, it is by degrees of mixing that the parts become distinct or confused in a continual transformation of values. The set cannot divide into parts without qualitatively changing each time" (14). Like human subjectivation, it is held together by immanent repetition and affect processes, through their narrative symbolism and reflexion. As with human subjectivation, the dividual aspect in the artwork places the accent on inner variability, elasticity and continual reorganisation of the structure, on the necessary readjustment of participation, on time-dependent aesthetic re-divisions, on intensity differences and light and sound divergences, which elude any simple registration: "parts which do not have the same denominator of distance, relief or light. In all these senses the frame ensures a deterritorialisation of the image" (15). The filmic ensemble, like human subjectivation, offers itself as a dividual and particular assemblage of world-becoming, lending itself a special affective expression depending upon the affirmed and selected actualisation of the virtual.

Taking the various Deleuze expositions and evaluations further, I intend to emphasise here that the term "dividuation"—replacing the name "dividual"—today exhibits its contrariness and contradictoriness more strongly. After all, it must be conceived as a highly ambivalent processuality, resulting on the one hand from the participatory affirmations of the present day and the multi-directional interweavings of single persons into new collective formations with a metastable disposition and a precarious coherence, and on the other hand from involuntary co-optings and assignments through statistical recording strategies and otherwise occasioned participation constraints. Dividuation refers to the involuntary dividing of single personal entities by unknown co-habitants that co-constitute the psycho-physis, by understandings of culture, economic participation offers—or refusals. The flipside of voluntary and affirmed participation is summarised by Gerald Raunig as "dividualism"—a critical term that plays on neo-liberal individualisation constraints.[6] Dividualism thus describes the political endeavour to compute single persons, to oppose upon them "new forms of machine-based (self) subjugation" or to synch them with processes such as financial market events. For Raunig, the military-sounding and thus in my view unsuitable term

"division" describes, on the other hand, conscious initiatives by single persons to join their abilities with others beyond national and cultural boundaries, working laterally to the dominant power form to invent mobile action alliances, differential assemblies and subversive articulation forms. Raunig coins the expanded term "condivision" for this type of voluntary and non-identity-based associations: "In condivision the dividual components and the division signify, not a surrender, a reduction, a sacrifice, but the possibility of an addition, a plus. […]. The linking and the dividuality of the singularities are co-emergent, as a condividuality of condividuals."

To summarise: I understand dividuation to be the name for a coherence of heterogeneous participation, not primarily to be understood either positively or negatively, and not restricted to the human sphere. These dividuations are problematic, multidirectional, time-dependent and metastable unities of human subjectivations, bio- and socio(techno) logical ensembles, composite cultures and artistic practices that are neither undivided nor physically subdividable. Today, the constitution of virtually all the entities that previously claimed "individual" status for themselves appears dividual: living organisms, open societies, functional systems, limited ecosystems, specific cultures, artworks, and more. To achieve a more adequate recording of the relationship between solo and group actors and their intersection with comprehensive bio-technological/socio-technological/global economic processes, it appears indispensible to reveal their character as one of participation-occasioned (self)dividuation and multiple tensions. In the process, comings-together of single persons and groups in what Raunig calls self-reflexive condivisions may emerge, which I would call condividuations: resistant ensembles that set themselves against the dividualism of economically interested major companies and databanks and their strategies through types of appropriation interruption or other condividual attitudes. Thus, I also call dividual those artworks that translate their indispensible involvement in contemporary articulation options in aesthetically intensive heterogeneses and in cumbersome joinings and stage themselves as non-concluding configurations whose themes include participation inequalities.

The terminological valorisation of the dividual is not associated only with the matter of self-enlightenment and disillusionment with regard to

outlived self-understandings, but also with the socio-political endeavour to transfer our dependence upon and division by others into considered participation care, inclusive participation-granting and communicated participations and into forms of distancing and participation termination. It suggests the putting together of participation potentials in condividual ensembles that, as associations of divided intentions, abilities and ideas, endeavour to combat techno-strategic appropriations by control forces, and also by epistemological curtailments, political exclusions and eco(techno)logical over-exploitation. With the term "condividuation," lateral assumptions, transverse capacity connections, subversive knowledge communications and types of participation interruption—and, admittedly, unmonitorable gang formation and politically undesirable subdivisions of the social field—become thinkable. Dividuation is not a normative term, but one coined to more adequately define contemporary participation processes, and also intended to contribute to more complex political-theory understandings of self and world.

In spite of the associated—not unjustified—fear of difference loss, it seems to me one can still assert that every dividuation is different from every other owing to its own peculiar participation mode, and always represents a peculiar virtual cohesion. Certainly, I would reserve the term "singularity" for exceptional phenomena, as he otherwise denies that which this term denotes. It seems to me that all the various peculiar dividual cohesions can be recorded in a sufficiently differential way in the term "particular." Epistemologically, politically, and aesthetically, it remains desirable to accentuate differences between the dividuations, to work on differentiations and to note from which perspective, with what framing, under consideration of which participation, according to which omission and through which evaluation of single persons or groups any given structure or artwork can be recognised and acknowledged as specifically dividual and thus different. Thus, one must pay attention to degrees, shadings, indeterminate affections and peculiar participation mixes and expose those that are suited to a multifaceted, inclusive, and also significant participation in world-becoming.

Famously, Deleuze—and, following him, Giorgio Agamben—outline a very specialised participation economy in the character of Bartleby. Bartleby's formula "I would prefer not to" is said to express an affirmed

abstention and distancing, a preferred non-participation. If Bartleby refused, according to Deleuze, he could be fixed, identified and controlled based on individuation. In Bartleby's statement, "I would prefer not to," an interstice opens up between an articulation of desire and its retraction in "not"; in the preference for a "not" that expresses a wish, a particular dividuation is made concrete. The statement executes a positive negation, which Deleuze calls "becoming-stone"—making a point against Heidegger's thesis of the world and the lifelessness of stone, which despises the inorganic. In view of the lures offered for participation today, this affirmed refusal can be understood as a resisting participation model: a special passive/active mode articulates a desire for abstention from the obligation of participation. In the era of the participation imperative, whether and how deviating and resistant participations remain possible within an increasingly densely compressed system of immanence becomes a crucial question.

Notes

1. All Simondon quotations were translated by me from the French [German-English translation: A.K.]. "Il n'y a pas d'essence unique de l'être individué parce que l'être individué n'est pas substance, pas *monade*: toute sa possibilité de développement lui vient de ce qu'il n'est pas unifié complètement, pas systématisé; un être systématisé […]) ne pourrait se développer" (227).
2. "L'individuation doit alors être considerée comme résolution partielle et relative qui se manifeste dans un système recélant des potentiels et renfermant une certaine incompatibilité à lui-même, incompatibilité faite de forces de tension"(4).
3. "L'entrée dans la réalité psychique est une entrée dans une voie transitoire, car la résolution de la problématique psychique intra-individuelle […] amène au niveau du transindividuel" (154).
4. "L'individuation sous forme de collectif fait de l'individu un individu de groupe, associé au groupe par la réalité préindividuelle qu'il porte en lui et qui, réunie à celle d'autres individus, s'individue en unité collective" (12).
5. "Crée un couplage entre des capacités inventives et organisatrices de plusieurs sujets. Il y a relation de causalité et de conditionnement réciproque

entre l'existence d'objets techniques nets, non aliénés, utilisés selon un statut qui n'aliène pas, et la constitution d'une telle relation transindividuelle" (253).

6. Gerald Raunig uses "dividualism" as a variant of "individualism," which is rejected owing to its neo-liberal connotations. For "individualism" as opposed to the positively connoted terms "condividuality" and "condivision," cf. "Etwas mehr als das Commune. Dividuum und Condividualität," in: grundrisse 35, Zeitschrift für Linke Theorie, Vienna.

References

Deleuze, Gilles: *Difference and Repetition*, London and New York: Continuum, 1994, ch. 2.

Deleuze, Gilles: *Postscript on the Societies of Control*, Vol. 59, October 1992, pp. 3–7.

Deleuze, Gilles: *Cinema 1: The Movement-Image*, trans. H. Tomlinson and B. Habberjam, University of Minnesota Press, 1986.

Deleuze, Gilles: *Cinema 2: The Time-Image*, trans. H. Tomlinson and R. Galeta, University of Minnesota Press, 1989.

Latour, Bruno: *Das Parlament der Dinge*, Frankfurt a.M., 2010.

Massumi, Cf. Brian: *Ontopower. War, Powers, and the State of Perception*, Durham and London: Duke Univ. Press, 2015.

Raunig, Gerald: "Etwas mehr als das Commune. Dividuum und Condividualität," in: grundrisse 35, *Zeitschrift für Linke Theorie*, Vienna, n.d.

Simondon, Gilbert: *Du mode d'existence des objets techniques*, Paris, 1969.

Simondon, Gilbert: *L'individuation à la lumière des notions de forme et d'information*, Paris, 1964.

Spinoza, Baruch de: Ethik in geometrischer Ordnung dargestellt, Latin-German, W. Bartuschat (ed.), Hamburg, 1999.

Welsch, Wolfgang: *Mensch und Welt: Eine evolutionäre Perspektive der Philosophie*, Munich, 2012.

4

Bio(techno)logical Dividuations

Many disciplines in biology have for some time now distanced themselves from descriptive categories that presuppose the unchanging, indivisible individual as the key building block of the living world: epistemological research initiatives into the concepts of organism and form are in decline, replaced by microscopic observations and processual modes of description that profile partition and participation relationships, hybridisations, population formations, interdependencies and interactions in ever wider ecobiological contexts. The human body is likewise seen as a complex ecosystem and bio-social network with trillions of molecular co-residents (Ackerman 2012, pp. 27–33): a human body consisting of approximately 10 trillion cells is believed to contain approximately 10 times that number of bacteria. A person with average standards of hygiene has approximately 1 trillion bacteria living on the skin, unevenly distributed. These bacteria feed on the roughly 10 billion skin flakes we shed daily, plus the minerals and lipids we secrete from our pores. 99% of all bacteria living on or within the human body are located in the digestive tract, where they constitute the so-called intestinal flora. Recent research has isolated over 3.3 million different genes and over 1000 bacteria types—"150 times as many genes as we ourselves possess" (28). A new investigative method has recently identified 128 varieties of

M. Ott, *Dividuations*, DOI 10.1007/978-3-319-72014-2_4

bacteria living in the lungs—even in the lungs of healthy people. This is the first time that micro-biologists have been in a position to identify lung bacteria in the laboratory; it was previously believed that the lungs were sterile. And yet, in spite of this situation of close co-habitation and concrescence—one aspect of which is that we are unable to live without the majority of these bacteria—most of the living cells in our bodies are described as "aliens" (27). According to biological taxonomy, they are distinct life forms. Today, the bio-coenosis that exists between human beings and these micro-organisms—and their genes—is known as a "micro-biome."

Thanks to increased differentiation in investigation and surveying methods, and to optical instruments that are penetrating into ever smaller microscopic realms, these micro-biomes are being opened up to us in all their multifarious and highly mobile forms. The field of micro-biology itself speaks of no longer being able to operate within the traditional classifications and parameters of magnitude, and is increasingly confirming observations from evolutionary biology that shift the focus to evolutionary adaptation, thus requiring ongoing registering of new interconnections and milieu formations. The underlying thesis is revolutionary and highly relevant to our subject matter: that particular modes of behaviour in human beings may be more strongly determined by the genetic variations in our micro-biomes than by our own genes. It is true that bio-scientists will immediately object that, since thus far only a vanishingly small percentage of the micro-organisms inhabiting the human body are known to us, such statements cannot be backed up by hard empirical evidence. In any case, proponents of this thesis self-critically emphasise that "the conceptual clarification of the concept of life" is still based on those life phenomena with which we are most "familiar in our life world" (Martin 2011, p. 124)—and therefore not on those encountered in the microscopic realm. As Christian Martin has stated, critically, the concept of life continues to display a normative aspect: those entities it designates as living beings represent a very limited section of an incomprehensibly vast number. It privileges those that approximate to a "species" form that is treated as a definitive template. Today, contemporary bio-sciences and their representatives in epistemological criticism appear to more frequently reflect, along with other factors, the spatial and temporal setting

of their experiments, the perspective and the framing of the object of study—and therefore the relative character of all results and measurements. This causes "the research of objects to which the property of life is attributed" to emerge as "the purpose of biology" (Janich and Weingarten 1999, p. 105).

For Bruno Latour, self-reflexive research approaches of this kind are no longer subject to the progress-focused knowledge goals of modernism, which aimed to isolate the individual, with the intention of increased autonomisation. He argues that, by contrast, today's knowledge goal lies in gaining a greater insight into the interconnection inherent within the situation, into the spatio-temporal links and coalescences of the objects with the context-dependent experimentation set-up, and in the corresponding relativising of study results. Because of the "perplexity" (Latour 2004, p. 125) of participation and partition processes and their "unfolding through one another" as he has observed it, Latour examines biology processes from the perspective of an epistemic interest that has the potential to "multiply matters of concern" (26), and "to give it a different sorting principle" for objects of knowledge—and, in fact, for other objects also:

> Unlike their predecessors, they have no clear boundaries, no well-defined essences, no sharp separation between their own hard kernel and their environment. It is because of this feature that they take on the aspect of tangled beings, forming rhizomes and networks. In the second place, their producers are no longer invisible, out of sight; they appear in broad daylight, embarrassed, controversial, complicated, implicated, with all their instruments, laboratories, workshops, and factories. Scientific, technological, and industrial production has been an integral part of their definition from the beginning. […] They have numerous connections, tentacles, and pseudopods,[1] that link them in many different ways to beings as ill assured as themselves and that consequently *no longer* constitute *another universe, independent of the first*. (24)

This microscopic and at the same time field-focused form of investigative perspective, which pays attention to the reciprocal generation and mutual influencing of biological processes and underlines their conflicted one-within-the-other coexistence—thereby re-embedding the human observer in an intricate tangle of references that is not centred on the

observer—dividuates living things with a radical quality that has not hitherto been present. Latour's political ecology thinks of the world, not as a superstructure, but as a micrological interrelationship of dissimilar processes with differing properties of articulation that can barely be disentangled, and which, in principle, should be accorded the same spatio-temporal recognition and value status. He demands that there should be a place in the laboratory for all of those involved, whether they be human or non-human entities. Furthermore, he wishes to see the collective understood as an experiment. It is significant that he understands living matter in terms of "time-giving" processes of differing magnitudes, which mutually beget and interpenetrate one another, so that *anthropos* presents itself as inhabited by a vast number of micro-organisms and "commensals" (Latin: *commensalis*, "one who eats at the same table"). These make use of its body, and at the same time play a role in constructing it. They cannot be separated from it without risk to its and to their continued existence. Latour describes these particles that surround, permeate, and co-generate the human organism as minimal events, which "animate all actions" (88) and "give form to humans" (88). In epistemological respects, they belong to a non-human genus, and yet, through their different natures, they co-constitute the human genus. In their character of undivided subdividednesses, they co-generate the human being.

It is true that more traditionally focused biologists continue to draw a clear epistemological distinction between the inorganic and the organic—in spite of numerous objections. The first class, the inorganic, is said to be characterised by complete passivity, as opposed to the non-passive second class (Rosado 1995). The organic develops an "inner effective force" thanks to its autonomous activity in terms of the uptake and conversion of foreign substances, and is distinguished from "lifeless material" by a special capacity for penetration: "It is more intimate than that [relationship] that things of inorganic material may have to another thing" (18). Schwarz distinguishes the inorganic, with its purely "time-dependent processes" of chemical and energetic reaction, from "inner penetrations" of this kind: from the "rhythmic coordination of organs" and their complex adaptation and integration processes. Inorganic substances such as crystal, which increase solely through cell growth, do not demonstrate self-regulation. This categorical distinction is thus in contradiction to

Gilbert Simondon, who, like Stephen Jay Gould, sees a continuum between the physical and biological realms, between the passive and active, and discovers a high degree of organisation even in the inorganic material of crystal substances. He objects that the two traditionally separate areas are both characterised by processes of individuation, and that they are different only with regard to the transformation of their respective organisations, and in terms of individual phenomena—the same kind of differences that exist between different species and genus types. Representatives of the field of population genetics also accept transitions between these two realms, as they [place] the accent on the continually changing "atoms and molecules of which organisms consist"—in spite of the retention of "the forms of living organisms" (Janich and Weingarten 1999, p. 109). Additionally, in view of the usage of the technology necessary for observing such transitions, a dividing line can no longer be drawn between nature and technology. The term bio(techno)logy is therefore also intended to reflect a relationship of participation and penetration.

Today, differences in the drawing of boundaries in biology are the product of different focuses and values—relating, for instance, to the question of whether one focuses on the skin of an individual entity as a protection against intruders, as the organ that demarcates the individual organism, as a transmitter of environmental sense data and substances, as a temperature regulator between the outer and inner regions, as a detector of states and conditions; or as a habitat for countless multitudes of organisms. Gould emphasises that individuality, for the purposes of contemporary observation methods, can no longer be determined by outer boundaries and integration functions. Nor is the boundary of the individual represented by a membrane. The skin appears to demonstrate with particular aptness that organisms are not consistently active and self-organising entities, but are inset into a participatory fabric in which they are co-modelled by diverse factors and in which they, in turn, co-model those factors. Based on her own immunology work, Donna Haraway points to the epistemological difficulty of determining the boundaries of an organism from the perspective of immunology (Haraway 1991, p. 218). She actually goes so far as to question the theoretical possibility of defining an organic body, since such a body does not begin and end at its skin: "Besides the cellular compartment, the immune system comprises a vast array of circulating

acellular products, such as antibodies, lymphokines, and complement components." When observed under a scanning electron microscope, the "genetics of the immune system cells, with their high rates of somatic mutation and gene product splicings and rearrangings to make finished surface receptors and antibodies, makes a mockery of the notion of a constant genome even within 'one' body." With her repudiation of a "constant genome," Haraway contradicts the assumption of a combinatorial logic of fixed genetic units. She describes the late twentieth-century human body as a fully denaturalised cyborg, and speaks, in general, of organisms being made of biotic components rather than born:

> In relation to objects like biotic components, one must think not in terms of essential properties, but in terms of design. […] In a sense, organisms have ceased to exist as objects of knowledge, giving way to biotic components, i.e., special kinds of information-processing devices. (Haraway 1991, p. 164)

Species (In-)Dividuations

Today, significant arguments for changing our understanding of the single living being are presented by evolutionary biology, by micro-biology, by molecular biology, and by genetics. These disciplines teach us that the epistemological proximities and distances between the species must be rethought and re-evaluated, since we are presumably aware of only 1% of the life forms existing in the microscopic realm. Thus, the human organism "houses a complex micro-biome from an early age" and "acquires its own personal commensals […] from the environment" (Ackeman 2012, p. 26). It is true, as has been stated, that the micro-organisms are not everything. But without them, everything would come to nothing. In view of these commensal relationships, it could be questionable whether the symbiotic composite known as the human being can be defined and described. It is likewise questionable how, in view of these insights, one should treat the distinctions between species.

New microscopic-digital data recording techniques have led to the increasing replacement of phenotype-focused approaches to research by

the investigation of genotypes. Similarity-based criteria are replaced by criteria based on causality. Beneath the scanning electron microscope, the "typical morphological features" blur and dissolve into manifold commensalisms. As a result, species boundaries are no longer determined by form and appearance, but by temporal factors such as reproduction and sexual intercourse. This biological definition of a species aims to derive the species from its relationship to other species—which admittedly makes species determination more difficult. Thus, one "breeding population" (Sober 1993, p. 153) is distinguished from another based upon a shared "gene pool," thus isolating that population as an individual.

However, as sexual intercourse is carried on with varying intensities depending upon temporal or geographical intervals, the boundary with the individuised population, which interbreeds and generates offspring, become still more difficult to assign. Here, we see, once again, that the epistemological isolation of a population with respect to an individual is dependent upon the spatial scope of the field of observation and of the timing. After all, what is classified as a reproductive species may, in the long term, be temporally or geographically divided, with each division therefore specifying differently: at what point, then, does it lose its individuality? Some species develop separate morphs that hybridise afresh in specific geographical regions. This hybridisation may in turn give rise to a third population, which, if the gene flow continues to be interrupted, must then be referred to as a new species. Since it is additionally frequently impossible to give the moment in time at which speciation occurs, this is managed by means of construction of epistemological "transitional fields:" in a transitional field of this type, related populations of geographically separated "allospecies" (such as the American bison and the Eurasian wisent) or geographically in contact but non-mixing "semispecies" (such as hooded crows or carrion crows) can be compared in terms of their identical and deviating features. As the construction of transitional fields of this type offers a large number of indeterminate zones and disputed manifestations, genotype-oriented molecular biology identification processes try to make genetic structures and their quantifiable compositions visible, in order to thereby make it possible to more exactly determine the relationships. Genetic analysis, however, also simply makes the problem more complicated, as this method's depth of differentiating vision may

sometimes suggest species or population distinctions where gene flow and exchange still exist and hybrids occur.

Due to these various difficulties, it is today conceded that the concept of species refers to contingent constructions occasioned by technology, which are dependent upon the epistemological preferences of the research strategy and the investigation methods used by the biological sub-discipline. Depending upon the weighting of the observations, differences can be made out in the occurrence of new phenotypes forms, in the sustained interruption or displacement of the gene flow, or in genetic deviations from sub-populations: "Species are not hard-edged entities but exist on a spectrum, with some species distinct and others blurred by recent isolation, horizontal gene transfer and hybridization" (Agapow 2005, p. 67). Following an initial biological definition, new species arise through the formation of gaps in the two-sex "tocogenetic" parent–child relationship, resulting in qualitative leaps. One possible objection to this definition is that it fails to take into account forms of asexual parthenogenesis. This method of determining/defining a species is accordingly criticised elsewhere: "The species is neither a determinate material object nor in any case a material system. The term is used for clonal populations and for bisexual populations alike, whilst neither displays any natural boundaries along the time axis, if one discounts the dying out of a population" (Wägele 2000, p. 58).

It is argued that species classification in the plant kingdom is near impossible for this reason, because at least half of all plants are hybrids. But if hybrid populations are not species, then what are they? Can one recognise individuation patterns in asexually reproducing populations? The various ways of considering reproduction make it even more puzzling how populations and species can be described as individuals, especially as their history cannot consistently be separated from that of hierarchically higher groups, such as colonies (c.f. Gould 2002). As Stephen Jay Gould has demonstrated, colonies are very complex owing to the number of different reproductive modes that exist within them.

Drawing boundaries on the vertical axis representing time—and therefore relating to the line of descent—is also made problematic, since species represent evolution and selection units, and their identity or

differentiality may, once again, be interpreted very differently depending upon the observation weighting, even if they are intersubjectively verifiable. Because it takes into account evolutionary change, phylogenetic analysis often arrives at groups that are different and less inclusive than those produced by biological species definition.[2] The reconstruction of phylogenetic trees always causes more pronounced variations and deviations of the observed individuals—or of species from each other—to emerge than the biological concept of species would. In addition to this, a species that defines itself through the descent lines of populations, through evolutionary tendencies and a time-dependent identity is difficult to delineate, in temporal and in spatial terms (Wiesemüller et al. 2002, p. 49). Today, the phylogenetic system is accused of primarily basing its definition of a species on cladogenesis—the sequence of splitting, and therefore of differentiation—as opposed to anagenesis—the evolution of changes, and therefore those aspects that remain the same.

The current synthetic revolution theory presupposes a two-stage evolutionary process of living organisms, with the initial stage of replication followed by a stage of interacting with the environment. This may also be a stage of selection. Ecosystems may play a role in this process as interactors. There is some dissent as regards "genetic divergence:" up to what point can individual organisms whose respective complements of genes are developing in different directions and at varying speeds still be regarded as a single species? The answer to this is that the morphological differences within a population must remain smaller than those between individuals from different populations. But who determines how this should be measured? It appears that only irreversible divergence events enable clear distinctions between species, thus allowing them to be described as clearly demarcated sections of the phylogenetic tree. The phylogenetic definition of species relies upon such events.

The newer processual morphology, which focuses on the evolutionary morphological changes in an established species, is compelled to problematise its concept of homology: since the mutating organisms consist of varying percentages of morphological components that are changing in different ways, and therefore reveal interesting dividual developments, a concept of partial homology is required in order to describe them. Such a concept registers the features that remain the same

in evolutionary terms and the non-mutating features of a species, and therefore the constant aspect of that species. As certain organisms only remain up to 60% homologous, a transformational concept of homology is proposed for a "mosaic evolution" of this kind. Such an epistemological construction of "mosaic animals" whose pattern of distinguishing features can be traced back to features from a variety of taxa, is, in its turn, criticised for viewing the organism as simply an "agglomeration of unconnected features" (Janich and Weingarten 1999, p. 185) rather than a complex temporal dividuation process. After all, processual morphology is clearly most interested in rare examples that display new forms or new combinations of different patterns of characteristics, regardless of their intrinsic interplay.

Contemporary methods of molecular genetics that aim to determine species diversity have created, as previously mentioned, a new shift in the problem of species demarcations, and have made that problem still more acute. As is discussed by Agapow, it is not only that the molecular systematising approach assumes "a level of entity fundamentally different from that of other species concepts" (Agapow 2005, p. 60). These methods also incorporate other temporal, material and epistemological levels, "populations that are more finely grained, or a stage along the speciation trajectory different from that seen by previous methods. There is no privileged phylogenetic level that corresponds to a species and thus taxonomy is sensitive to sampling effort" (60). The question of time frame is of increased relevance in this kind of more fine-grained profile, as the findings may vary widely depending on this factor. Phylogeneticists like Willi Hennig criticise the fact that in molecular genetic study methods, the object of study is not the whole individual entity throughout its temporal and epigenetic development, but only its state as observed in the moment. It is not an individual as viewed over the duration of its life, but only the limited "semaphoront" (1982, p. 14) of an extremely small time span that provides the basis for the insights here. As a result, the individual living organisms must ultimately be reconstructed from separate states at different times.

On the other hand, molecular analysis now allows species affinities between geographically separated and polymorphous specimens to be identified, allowing a wealth of unsuspected dividuations to be ascertained.

It is true that molecular species identification frequently finds itself confronted with a wide spectrum of variations within a single species, and therefore with diversification into a multiple morphospecies. After all, some populations are composed of differing phylospecies, resulting in highly dividual formations, whilst recently separated species may forfeit their mutually shared polymorphism—meaning that, phenotypically, they are no longer recognisable as a shared species. Certain phylospecies succeed in breaking through the biological species barrier through genetic transfer; this does not destabilise the identity of a population. Agapow therefore comes to the conclusion that: "There are many different ways of being a species and many different ways of maintaining species identity. Every species concept is correct, for a given local value of correctness" (Agapow 2005, p. 67). Even when populations belong together in terms of their development history, they may under certain circumstances show a clear adaptive divergence, especially when they live in different eco(techno)logical settings. And researchers may arrive at different classifications of species, even if they impose the same defining criteria.

It is interesting to note the finding that rigorous molecular analysis increases the number of different species by an average of up to 48%. Bio(techno)logical dividuation grows exponentially with the more differential investigative methods, as genetic analysis makes it clear that a larger number of intersections, splittings, variations, and hybrid formations exist than can be seen in the phenotype. It reveals polymorphisms that are not visible morphologically. Agapow goes on to criticise both the construction of descent lines as visualised hypotheses and biology's bias towards species classification itself, on the grounds that they cause countless hybrid populations to be overlooked. Above all, however, they cause the complexity of ecological structures, with all their relationships of interdependence and interaction—and the dividual relationships—to receive insufficient exposure owing to the excessive emphasis on individual species. All in all, the preferred research approach is too static, and is oriented on fixed values.

Agapow therefore demands the putting in place of research criteria not geared towards the specification of individuals, economic advantage, or evolution information. His criticism is, at heart, directed toward a biologically understood philosophy of nature protection that fights for the

preservation of macroscopically visible species at the expense of others that are inaccessible to the human eye. Agapow's very justifiable criticism is that the important thing is not to save individual populations, or to preserve individuised species regardless of issues of ecological interplay and the promotion of bio-diversity. Agapow himself focuses attention on "superspecific" groups that co-exist and co-evolve, with many species. It appears to him that caring for areas with species diversity and with powers of reproducing this and of producing new dividuations is more important than the saving of an individual species. After all, regions of high biodiversity cause new species to arise. However, since most life is microstructural, both in biomass and in bio-diversity, and since macrostructural life shows low diversity by comparison, what is needed is a shift in the focus of attention in order to actually integrate micro-organisms and their dividual relationships into the discussion of bio-diversity.

The concept of adaptation as an evolutionary theory concept is fundamentally called into question by this shift in orientation. From the perspective of bio-diversity, the discussion should not be about the ability of a single species to survive in a given environment. The molecular perspective brings into view certain interrelationships that may also make it difficult to isolate individual processes of adaptation, whilst at the same time accentuating not readily comprehensible affect and penetration processes taking place between organisms of all orders of magnitude. Robert Brandon therefore applies "adaptation" and "fitness" not to individual organisms and their outstanding individual achievements, but to their fitness to engage in interplay: "Adaptedness is a property-in-an environment, not an environment-independent or intrinsic property" (Brandon 1990, p. 46). Drawing on his reflections on the homogeneities or heterogeneities of environments, he argues that they should be renamed "biotopes," since the real issue is not the "environs" of worlds, but the forms of interdevelopment of development processes within delimited areas of observation. The relevant processes are therefore those that affect different species and that initiate selection processes in differing species and on differing levels. Brandon considers a selective environment to be one whose elements make a differential contribution to the development of the next generation. Similarly, selections in the genotype cannot be decoupled from the environs. In fact, owing to the variable topographical

distribution and expression of the genes in the genome, one must actually speak of different environments for the same individual organism. These environments open themselves in a spatio-temporally discontinuous fashion; the definition of these is reminiscent of the outer and inner milieus of dividuation adopted by Simondon. Brandon also acknowledges that cultural information may be recorded in certain units of genetic information, and may act as amplifiers for them. Cultural transmission can cultivate new transmission patterns, or change the evolutionary dynamic of a species. For this reason, he joins with Stuart A. Kauffman in speaking of the co-evolution of organisms and the changing biotopic environs (cf. Kauffman 1993, p. 237).

Today, a final very significant aspect of this blurring of species boundaries is presented by the various possibilities offered by genetic manipulation technologies. Specifically, Jeremy Rifkin references experiments in which the gene responsible for human growth hormone production was permanently implanted into the genetic material of pigs and cattle, causing the animals to grow larger, to grow more quickly and to produce more than 20,000 kilos of milk products annually (Rifkin 1985). As is well known, there is also the desire to intervene in the human genetic code, modifying it for reasons of health or reproduction: and this is probably the most dangerous dividuation undertaken by *anthropos*.

Human Dividuations

Today, molecular and developmental biology also discuss the genus-specific characteristics of humans, since the decodable structure of the human genome provides us with evidence that the difference between chimpanzees and humans is 1.6% genetic disparity: less than exists between two different gibbon species (2%) (Diamond 1992, p. 23). Put concisely, 98.4% of our DNA is "normal ape DNA." In comparison with the orang-utan, which has, over the course of 16 million years, become significantly different from other ape species in genetic terms, human beings show only a brief division and distinction period in terms of genus differentiation. Species comparisons therefore establish that: "humans [are] a fairly homogenous species, which may be because they emerged at

a recent point in history. If one takes information on ranges of variation in proteins as an indicator, then the difference between members of different human groups is only one fifth as great as the difference between humans and chimpanzees" (Jones 1993, p. 277).

Admittedly, this still means that, as a rule, two people will differ by one letter of their DNA code per thousand, and there are approximately 3 million points in our genetic information that vary from person to person. Consequently, we are differentiated from our fellow human beings by one thousandth part of our genetic information. The weighting of this minimal differentiation, its interpretation as an (un)dividedness or a (non-)interchangeability, depends upon epistemological values.

In any case, the genetic differences within certain non-human species vary significantly more than two representatives of the human species that live far apart. This might be one of the reasons why race subdivisions on the basis of genetic features derived from the range of variation of the proteins are declared to be impossible. Certainly there is some reference to genetic "patterns" (278) that allow people of the South Sahara, for instance, to be distinguished from any other Earth population, since Europeans, for example, display only a small selection of the genes of their presumed continent of origin, and appear to be more closely related with each other than with those born in Africa. The problematic character of this distinction has led a number of clear-sighted genomicists to the conclusion that: "We should probably avoid thinking in categories of individual organisms at all, and instead focus our attention on the complex dependency of the immeasurably vast diversity of life forms […]. It is questionable whether any organism can survive on earth in isolation; only the whole network, with all its ramifications, is viable" (Davies and Gribbin 1993, p. 266).

Gould therefore applies a critically different distinguishing criterion: he replaces rigid morphological classifications with the observing of maturation processes and of different development speeds. He proceeds from the assumption that acceleration and retardation play a decisive role in selection, that the moment in time at which sexual maturity is reached is 'the' critical factor for human beings, acting as a "matrix of retardation" (Gould 2002, p. 9). Although humans and chimpanzees are virtually identical in terms of their structural genes, they are different in terms of

the speed of their ontogenesis: "Heterochronic changes are regulatory changes; they require only an alteration in the timing of features already present" (9). Because of the time-displaced actualisations of the genetic information, the accelerations and retardations of developmental stages can play a role in the emergence of differences, resulting in increasing renewals or in phylogenetic recapitulation. Everything does not come down to the information contained in the genome and its variability. There are also actualisation dynamics that must be considered: heterochrony, or asynchronicity, appears to be a constitutive criterion for speciation. Gould therefore regards maturation speed as the critical factor for the evolution of gene regulation. Not just the virtual genetic information, but, to a still greater extent, its time-shifted expression—e.g. the retarded activation of regulator genes—may lead to changed participation, to inversions, translocations, fusions and fragmentation processes within actualisation, and thus to new dividual relationships and specific differences.

For Gould, development speed is actually equal in importance to adaptation, which he sets up in opposition to Darwinian selection through fitness for an environment:

> The components of life history strategies—timing of reproduction, fecundity, and longevity, for example—are adaptations in themselves, not merely the consequences of evolving structure and function. Moreover, they are adaptations to components of the environment not considered in previous theories—among them, patchiness, grain, and the intensity, periodicity, and predictability of fluctuation. (290)

Adaptation is now presented as a variable derived from time rhythms and material composition, and as an actualization of virtual configurations; specific in each case, and not simply a compromise of structure and function. Thus, the crucial characteristic of anthropogenesis is late development as an essential quality. To support this thesis, Gould references Franz Weidenreich, who traced the increase in human brain volume to the retaining of embryonic growth development speeds: "[O]ur brain reached its impressive size through retention of foetal growth rates" (372). On the other hand, he casts doubt on the assertions made by Louis Bolk

in the 1920s that retardation acts to an equal degree and simultaneously on all parts of the life form: "that retardation affects all essential features to the same degree in a single coordinated event" (361). Instead, the individual organism is distinguished from its neighbouring organisms through the specific actualisation speed of its genetic information. Above all, however, the delay in the development process, "delayed development, particularly expressed in late maturation and extended childhood" (400), was the precondition for human brain formation, and for the subsequent socialisability of the genus form. Gould also attributes the emergence of consciousness to the "heterochronic extension of foetal growth rates and patterns of cell proliferation" (409). Louis Bolk's further assumption that different stages of development of the human species could be inferred from the anthropogenetic retarded maturation process has been proven incorrect, at least with regard to his intention of applying a hierarchy to the different human races: today, it is not the white race that appears as the most retarded, as Bolk would have wished, but, as Gould stated in his objection to Bolk's theory, the Mongolian people. The revelation that the formation of differences depends upon the specific and asynchronous forms of actualisation of the genetic material—as well as on the genetic material itself—must surely provide a further argument for "dividuations of living matter" as the more appropriate description?

In the realm of molecular biology, the decoding work of the Human Genome Project has played its role in making it clear that it is exceptionally difficult to link specific elements of genetic information to expected characteristics. It now appears proven that there is no simple causal relationship between the genotype and the effective characteristics. The expression of phenotypical features takes place via a differential process of interactions and feedback operations between the DNA, RNA, proteins, and cell plasma. Not just the DNA, but, above all, the complex structure of the cell machinery, with its constituent proteins, appears to have a crucial impact on the genetic coding and on the time-dependent constitution of the individual organism. The complex way in which they unfold means that one can also speak of bio-diversity at the genetic level. In this respect, Lewontin describes life as being a highly complex network structure that passes functional requirements on to the various elements via a

time-dependent switching system. Here, once again, it is emphasised that the manner in which the components relate to one another temporally plays a more significant role in the actualising of the gene code than their material composition. Another aspect of this is that DNA polymerases and the various enzyme systems for the repair of DNA, plus the enzyme transposition system, are themselves the product of an evolutionary process, and may undergo fresh changes over the long term. According to Jan T. Kim, even the temporal frequency of mutation processes is a product of evolution, and may vary.

Since genetic coding represents a heterochronous repetition and differentiation process, it is, as Kim states, defined as a bio-diversification process. So-called "transposons," also known as genetic parasites, promote genetic dividuation; as mobile elements within a genome, they change position, cut out certain sections, and pave the way for recombinations. They initiate dramatic changes in the genetic information. These changes, in turn, show a range of variations: in "conservative transposition," the moveable information is cut out of the DNA and reintegrated in a different position (cut-and-paste), whilst in "replicative transposition" a copy is merely produced and reinstalled in a different position (copy-and-paste), leading to an increase in the number of transposons. In this manner, transposons engage in "flexibilising [of] the configuration of the genome" (193) in various different ways. Copies of a single transposon in different places in the genome enable asymmetrical homologous recombinations, leading to duplication or loss of sections of the chromosome: "Depending upon the orientation of the transposons in relation to each other, this may lead to translocations and inversions." (194) Parasite genes also enable wild and unpredictable rearrangements and recombinations of the human genome beyond our understanding: "DNA copies can also be synthesised from other RNAs via the reverse transcriptase coded by retrotransposons. These can be integrated into the genome as intron-free pseudogenes, which in turn can become the starting point for the evolution of new functionality" (194).

These actualisations of the human genome to anarchic effect carried out by "parasites"—by co-residents with a non-anthropomorphic classification—inevitably open up epistemological questions concerning "self" and "other," and the (non)differentiated status of the human genus and

of the individual. Since, in this area, no clear boundaries can be drawn—one can only recognise differential participation conjunctions and disjunctions—we once again see human subjectivation surfacing in the form of dividuation.

In the wealth of varieties that they describe, Kim and his co-researchers do not only emphasise the innumerable actualisation possibilities of the genome. They also point towards possible evolutionary renewals: transposons can arise in non-coded gene regions and divide the genome into segments that code the biological functionality. Through the integration of a transposon, the amino acid sequences of a gene can be changed, blocks of amino acids incorporated into a protein or removed. Non-functional forms of proteins can be brought into expression, thereby causing organismic disruptions; however, the phenotype as a whole can also be altered through variation of the expression pattern. Ultimately, through the power of their dividuation potential, transposons may work towards the emergence of entirely new genome structures: "The evolution of hybrid proteins is strongly favoured by homologous recombination between non-allele, repetitive sequences. The integration of transposons with donor and acceptor sites for *splicing* also supports the modular evolution of proteins"(196f.).

As explained by Derek E.G. Briggs and Peter R. Crowther in *Palaeobiology II*, it is also highly significant to our observations on dividuation that the so-called regulator genes responsible for the development of forms are exceptionally widely distributed in phylogenetic terms, and are not necessarily species-specific: "Genes encoding transcription factors are particularly widespread: homeobox, MAD-box, and zinc-finger families are present in plants, animals, fungi, and protists" (Briggs and Crowther 2001, p. 147). Regulator genes control related development processes in taxonomically different species, also taking over development functions in arthropods and invertebrates alike. Numerous examples exist to support the theory that regulator genes have been active in distantly related taxa for millions of years; they can therefore tell us about homologous developments of morphological structures. Thanks to these regulator genes, homologies can be observed in the development of vertebrate and invertebrate brains, once again raising questions about possible different relationships between taxonomically disparate species. The

age of many regulator gene families additionally gives weight to the suggestion that many—perhaps even all—of their development functions do not correspond to their original roles, and that evolution-occasioned displacements have therefore taken place between transcription factors and gene codes. It appears to have been recognised for some time now that regulator genes initiate mutations and change morphologies in a substantial and functionally integrated manner. In view of the exceptionally variable interactions and intra-actions of the regulator genes, which can also control different development processes within the same species, it can be assumed that the bio-diversity that we encounter today is partly owing to their sophisticated dividuation action.

Recently, synthetic biology has made efforts to take up or to entirely replace this form of dividuation. And it is not only that biological systems have been analysed and reproduced, in line with this discipline's explicit goal of emancipating research from its natural constraints (Walz 2011). In contrast to the copy-and-paste process of gene articulation, synthetic biology endeavours to develop new biological systems from scratch. Ever since the success of Craig Venter's experiments, synthetic biology has been able to claim to construct molecular structures and to chemically synthesise complete genome sequences, "which we combine with 'natural' forms or establish as *de novo* organisms, thereby technologically producing life from scratch" (Dabrock et al. 2011, p. 11). Individual genes or small gene clusters are transferred from one organism to another—existing—organism, or, alternatively, individual mutations are prompted in individual genes. Synthetic biologists continue to endeavour to develop entirely new systems "through the *re-engineering*, to varying degrees, of existing life forms, or through the radical from-scratch construction *(redesign)* of artificial cells (Bölker 2011, p. 27). The genome created in the laboratory is introduced into the cells of a related real bacterium whose own DNA has been removed. "The cells transformed in this manner are viable and capable of dividing and behave exactly like the bacterium 'mycoplasma mycoides', whose DNA sequence serves as a template for the chemically synthesised genome" (31). Hitherto unknown forms of dividuation are being conjured up that result from the fusion of artificially generated genome sequences with "emptied" bacteria cells, and their autopoietic combined action. As the biologists themselves say,

what one has here is something entirely new, an unknown bio-technological entity: "The most remarkable thing about this attempt [is] that the cells produced in this way have no connection, physical or historical, to other individuals of the same species" (31). This is an assertion of a radical difference, the production of something entirely new on the basis of dividuation.

The dividuation fantasies, however, go even further than this. Once "biological function elements [have been] catalogued" (35), these elements are combined in various ways and, with the aid of synthetic short DNA sequences to serve as intermediate adaptors, are "combined with one another in a standardised fashion." These simple, composed biological "function module" function as parts of a constantly enlarging system of building blocks that, because they are standardised and modular, are described as "biobricks." Through its dividual methods, which are similar to the processes of the regulator gene and transcription factors, the synthetic biology of today can, according to its own claims, produce biological structures that do not exist in nature, with precisely the desired characteristics.

Synthetic biology does, however, acknowledge that researchers have not yet become "homo creator;" they are, at best, "homo plagiator" (Walz 2011, p. 267). Norbert Walz sees this plagiarism as very much in the spirit of the biblical injunction of "cooperation (cooperatio) of human beings in the work of creation," and as "creatio continua" (268), as active participation in the continuing creation of the becoming-world. From his broad perspective, he explicitly rejects the "claims of individual life" in favour of the "collective preservation structures of biological reproduction" (270). On the other hand, synthetic biology is seeking precisely that fate that "every individual from the very beginning to death is dedicated to," seeking to encounter "the transcending of the natural sphere" through technologies. In fact, this plagiarism is moving in the direction of a true *creation*, insofar as its intention is "to create a new form of existence founded upon a digital basis through the replacement of carbon-bond-based biological life, [an existence] that might overcome the death that is pre-programmed into the natural matrix of every individual" (273). This goal of synthetic biology surely makes it clear in the most dramatic way possible that contemporary bio-sciences are no longer concerned with

the individual as a finite conjunction of natural processes. Instead, they are concerned with the defining of what can be defined as living and can, in the best-case scenario, be artificially produced.

Ecologies and Bio-diversity

The new extended view of biological systems, which extends from the cell to ecosystems and represents "organisations composed of numerous subunits" (Kim et al. 2001, p. 207), has brought with it a shift in biology's focus; an increased interest in interdependencies and interactions in the organic realm, and also in inorganic conditions. It is interesting to note that system-oriented biology considers "interactionist systems" to include not only "permitting systems," but also "dependency systems" and "one-sided enabling systems and cooperative systems" (Kirchhoff 2007, p. 98). In the localised context, the most relevant theories are those that place "bio-coenoses" in the foreground: "organisms of different species that are socialised at a specific site within the habitat." These living communities are not simply "an aggregate, a sum of organisms found *alongside* each other in the same habitat due to similar exogenous life requirements. Instead, they are a (super-individual) totality, organisms existing *with* and *for* one another." Bio-coenology therefore analyses the relationships of life forms to their spatial distribution, the progressing of the function patterns and function types of organisms, the transmission of energy and substances, and the distinguishing of different grades of integration. The science of synecology takes this approach even further by making it a part of its key programme to concern itself with "organic communities," and to emphasise their "mutualistic" processes (Trepl 2005, p. 20). Interestingly, synecologists observe an increase in "reciprocally positive relationships" as ecosystems progress, develop and thrive; the state of maturation of an ecosystem can be determined relative to a younger ecosystem "by the development of more internal symbioses" (Kirchhoff 2007, p. 221).

Ludwig Trepl discusses the question of the relationship of isolated single persons and ecosystems, and, interestingly, states that where there are changes in an ecosystem, no objective assessment of whether the ecosystem's participants change significantly or not is possible:

> There is no possibility of objectively determining the magnitude of subtraction that must not be exceeded for one to be able to say that one is dealing with the same individual thing and that a change has taken place "in" this thing, or whether one must say that it is no longer that thing. The individual exists, as it were, only as a momentary image, and not "really", because a moment is an infinitely short space of time. The "concrete" individual stone is, as one can see, an abstraction: it does not "exist" (96).

He likewise emphasises that the defining of an individual is dependent upon brief sections of time, and that this definition is difficult to uphold in view of the individual's ongoing development. The concept of the ecological environment being founded upon cause-and-effect relationships—as opposed to surroundings defined by spatial proximity—is also shown to be problematic here. It is not only that an individual being may have several different environments—as was recognised by Jakob Johann von Uexküll—but that the environment of a migratory bird may include a wintering ground thousands of kilometres away, climatic conditions, and the socially co-occasioned provision of feed. The ecological environment eludes any complete definition, just as the individual entity does. It "cannot be constructed: the minimum environment is an abstraction, and can therefore be fully described by listing a series of terms such as, for instance, light and calcium, each in its specific quantities" (115). However, since "indirect," unintentional, and, possibly, invisible relationships are also a part of the ecological environment, such an environment cannot be artificially produced: it "results."

Going further, Frank B. Golley defines the ecosystem as a co-evolution of organism groups, with key species that provide specialised surroundings for many groups (Golley 1993). He sketches the relationship of organisms and environments as a reciprocal production process; it is not only the environment that exerts an influence. Instead, the environment is, in its turn, continuously changed by the organisms. His highly provocative theory is that bio-systems are more complex and allow for more diverse forms of interaction than digital networks. For this reason, certain researchers call for a "theory of relativity" (Levit et al. 2007, p. 55) of individuality for open bio-systems, thereby implicitly putting the case for the effort made here to redesignate the individual. In the same spirit,

Robert Brandon proposes that the individual should be divided into its "subparts" (Brandon 1996, p. 107), as a large number of non-individual processes are observable in ecosystems: geological and climatic change, breeding relationships, development channelling, competition and many others. Organisms may simultaneously be behaving differently in relation to different processes, showing multi-directionally differing "agency."

Agapow also strongly advocates for the inclusion of micro-organisms, bacteria, archaea and lower eukaryotes in the discussion of bio-diversity. Such a level of observation inevitably leads to the adoption of minimal dividuations in the realm of living things, as observation shows that the majority of plants and animals "[live] in obligate symbiotic contact with one or with several bacteria species. Frequently, one finds the phenomenon of co-speciation, which, as a first approximation, would mean that there are at least as many species of microorganisms as there are plants and animals, that is, over a million" (Amann and Roselló-Mora 2001, p. 173). More than half a million species are found in 30 grams of woodland soil. Since micro-organisms, in their capacity as symbionts, are co-responsible for the lives of higher organisms and, at the same time, develop continuously in tandem with them, the question of whether we should be speaking of co-evolution or of co-speciation should be discussed. One relevant finding is that both the morphological diversity of bacillus, coccus, and spirillus bacteria and the "polymorphism of many species" (165) demonstrate the impossibility of isolating them from the ecological context: given their participation in their hosts, their hard-to-define participatory relationship and, above all, the inextricable quality, in epistemological terms, of the bio-sphere. Because of their constitutive functions for the bio-sphere, micro-organisms offer us insights into ecosystem-forming strategies. On the other hand, they definitively test the limits of biological taxonomy: as sexual reproduction is largely absent, it is difficult to apply classifications based upon the biological concept of type or species. Notwithstanding this, taxonomies are established in the microscopic realm—for prokaryotes, for instance. Isolationist interventions are required, as one cannot make reliable distinctions using an optical microscope. Chemotaxonomic building blocks such as pigments, lipids and polyamines are analysed, cell wall compositions are identified, and groups of closely related isolates that are distinguished from other

tribes by a number of features are then classed as belonging to the same species. Micro-biology research acknowledges that this species concept is "a pragmatic polythetic concept that is distinguished by the minimal presence or virtually total absence of biological theory" (167).

Investigating the level of bio-diversity equally represents a challenge. Today, it is examined on at least three levels existing between the micro-structure and macro-structure with a bearing on "totality of genes, species and ecosystems in a region". Polymorphism is measured in "degrees of distance:" measurements or estimates of this kind, however, still relate to the former biological classification of species, and to "species richness." As one might expect, the diversity found in such studies depends upon the recording method used, and the extent to which it focuses on the distribution of populations, the degree of endemism, genetic variability, or the functioning of the ecosystem.

It is emphasised that bio-diversity, looked at over a long time scale, can be seen to be growing. Fossil remains from over 450 million years ago show comparatively low diversity: beginning with five species, they differentiated to produce the 50 million species that we see today. Today, human intervention in the biome in order to clear land for agrarian/organic purposes—human intervention in the form of habitat destruction, the exploitation of plants and animals, and the introduction of alien species, causing decimation and general disruption—is considered to be the major factor adversely affecting bio-diversity. "We have changed the atmosphere, and that will change the weather. The temperature and rainfall are no longer to be entirely the work of some separate, uncivilized force, but instead in part a product of our habits, our economies, our ways of life" (45). However, wind, fire, and vulcanism, among many other factors, may also function as modifiers of bio-diversity.[3]

A call has been made for diversified habitats to be preserved in order to promote species and microbe diversity, which may also include artificial habitats, as bacteria that have adapted to the application of specific chemicals contribute to increasing bio-diversity. The constructing or supporting of "corridors" (Anderson and Jenkins 2006) to restore or increase the flow of food sources and of genes between populations and

to enable biological groups to better adapt to their changed habitat or to climate change is a known way of helping damaged areas to regenerate. In general, one endeavours to create multi-directional connections between a mosaic of ecosystems, thus creating wide-area dividual bio-systems: the idea is that interaction and intra-action areas for mixed populations ensure a "connectivity of component populations for a meta-population strategy" (Boyle and Boyle 1994, p. 154). In order to achieve this purpose, Edward O. Wilson calls for knowledge to be combined in unconventional ways:

> The solution will require cooperation among professions long separated by academic and practical tradition. Biology, anthropology, economics, agriculture, government and law will have to find a common voice. Their conjunction has already risen to a new discipline, bio-diversity studies, defined as a systemic study of the full array of organic diversity. (Wilson 1992, p. 312)

Thus, we see the inception of a dividual relationship of scientific disciplines, under the label "Bio-diversity Studies."

Recently, there have been attempts to go still further and to bring together bio-ecology and socio-ecology through the concept of a global ecosystem. Bruno Latour regards this as dangerous, both in epistemological and in political terms: "The ecosystem integrated everything, but too quickly and too cheaply. The science of ecosystems allowed us to dispense with the requirements of discussion and due process in building the common world: obviously a capital failing in a democracy" (Latour 2010, p. 131). An epistemological recognition of ecological participatory equality, however, would also include, first and foremost, a "*revolt of the means*: no entity […] agrees any longer to be treated 'simply as a means', but insists on being treated 'always also as an end.' […] There is no longer any space set aside where we can unload simple means in view of ends that have been defined once and for all without proper procedure" (156). As Latour remarks in his conclusion, this recognition of the collectedness of a dividual multitude, of humans and non-humans, all of equal rank, also puts paid to the category of "non-living."

Bio-technological and Bio-political Dividuations

In her text *Was ist Biomacht?*, Petra Gehring looks at contemporary biotechnologies, including organ transplants, stem cell research, and nanotechnology, which have for some time now made the idea of an indivisible life substance obsolete. She clearly demonstrates that these technologies make the former boundaries of the body designated as an individual permeable to "life," taking possession of the body, using it as a source of raw materials and radically subdividing it through organ transplantation: "Blood, organs, cells of all kinds, tissue—and also data—are extracted, stored, and utilised, and can be traded" (Gehring 2006, p. 17). Thus, when it endeavours to produce human replacement organs and tissues from human cells and to use them to replace old organs or tissues, regenerative medicine and "tissue engineering, also known as tissue construction or tissue growing" (Kasper 2010), engages in practices of dividual processes, both problematic and therapeutic. For instance, work is currently in progress on the growing of a replacement pancreas to help diabetes patients. Efforts are also being made to grow the various different cells of the nervous system in hopes of alleviating or curing neurogenerative illnesses. Through these processes, however, bio-technologies are not just impacting upon the whole organism. They also utilise and economically exploit it. In an extreme case, they may use it as a repository of spare parts. They make something in what Gehring continues to call the "individual" body "capable of circulation," so that ultimately a deindividuised life material is obtained from it, "a peculiar, *technogenous* substance" (18) that, under the name of life, circulates "between" different bodies. Gehring herself emphasises the undermining of the individual that this implies. For life, technologically understood, will be seen only as the reproduction substance of organic material, divided up, quite independently of its donor, among various different knowledge-based and utilitarian interests, and interested parties. The organs and the blood—once understood to be an entirely individual vital fluid—have become transferable and interchangeable. Today, it is the immune boundary, which

can be medically regulated through immuno-suppression, that defines what belongs to which body at any particular point in time.

Like other researchers, Gehring cites bio-nano-technology as one of the youngest bio-technologies that, equally, disturbs a single person's self-understanding as an individual. Its goal, according to Gehring, is to observe the behaviour of individual molecules within biological systems with the aid of nano-chips, and to manipulate them—usually to effect a cure or improvement. By means of prostheses implanted into the body, therapeutic proteins could be brought into action within 24 hours of the presence of a pathogen being recognised. Nano-capsules made from colloidal gold could attach themselves to tumour DNA, performing diagnostic and therapeutic functions.

> They act like lenses, absorbing the waves of the close infrared radiation, which penetrates the skin and produces a very exact image of the tumour. To heal, or rather to destroy the tumour, one would only need to increase the dose of radiation. (Cueva 2010, p. 95)

There are now dressings of silver nano-particles on the market that can render harmless more than 150 pathogens, including antibiotic-resistant bacteria. It is also true that nano-technology has developed machine-insect interfaces that have a number of applications, some military: chips are inserted into moths in order to transform them into living, remote-controlled drones.

Gehring pays particular attention to stem cell research, which she sees as the attainment of a definitive stage in deindividuation. For with the obtaining of embryonic stem cells from every kind of cell, the stem cell has in a sense attained the status of an excelling discipline in terms of bio-technological dividuation. Stem cells have now been put in a position to provide a kind of "pure culture" (25) of dividual materiality that "corresponds to the ideal of a universal circulatory human raw material: a deindividuised life substance that runs through the single person more like a current, rather than making up its body or being substantially identical with that body, or even with its age" (25). Gehring's analysis has a warning note: this technologically enabled "continuum of life" not only

undermines the bodily boundary between myself and my fellow man, but also the boundary between myself and my biological species. The status of the individual body is no longer clearly distinguishable from the physiology of the population:

> The old fundamental idea of the intact individual […] appears to be on the wane. Instead, an economy of circulating bio-materials is becoming established; these are not only administered to human beings, but also obtained from the human body or produced in human bodies. New "general" substances with a bio-chemical, immunological or genetic profile—the blood serum, the antibody, the T-cell, the DNA, the cell nucleus—are given a value in the process. (25)

Gehring sees a tendency toward individuation in the bio-technological methods used to alter the gamete cell cycle, and in the use of cultured tissue as a substitute for diseased tissues and organs, and in the manipulation of the genetic code: all of these, she believes, represent an endeavour to abolish individual death. She singles out the exceptionally problematic aspect of the research and manufacturing process of a "liberal" eugenics: "The politics of culturing no longer applies to 'someone.' The person is removed" (175). Advocating caution, she relates this to the ethical argument of Jürgen Habermas, who, with the aim of preventing eugenic processes of this kind, calls for a species-oriented ethic, explicitly in order to maintain the undividedness and autonomy of the person.

Reproductive medicine allows certain aspects of this body material dividuation praxis to become public, and for it to profit from it economically, epistemologically, and possibly politically and ethically as well. As Ute Kalender emphasises in affirmative understanding, the use of reproductive technologies fragments the "normal" reproduction process (c.f. Kalender 2012). The anonymised sperm donation of a single subject can be used by a large number of women; the current situation in Germany is that up to 12 children may be produced from the same sperm bank. A woman's egg cell, formerly part of her bodily indivisible totality, can now also become "a raw material deployed flexibly for the pregnancy of another" (Gehring 2006, p. 25). Thanks to the in vitro fertilisation (IVF) process, egg cells can be stored outside the body and fertilised with sperm

cells from sperm banks; embryos can be taken from bodies, frozen or implanted into other bodies. In an extreme case, anonymous egg cells are fused with anonymous sperm cells previously transferred via centrifuges and freezers in the test tube, making this new life doubly unknown in terms of its origin, and additionally causing it to be partially related to others that are unknown to it. Aside from other issues such as surrogate motherhood, one fact is of particular relevance in this context: the fact that the reproductive material comes from unknown subjects. Their origins cannot simply be reconstructed, as was revealed in a trial in Germany in February 2013. Contrary to the judgement of the 1989 UN Convention on the Rights of the Child, which enshrines the right of children to know their "parents," the anonymity of sperm donors continues to be protected in Germany. In certain countries, women are recruited for "egg cell production" through adverts, and offered financial inducements to undertake this "raw materials work." These women may be flown to other countries for the egg cell harvesting process, which involves extracting the egg cells by means of suction, under clinical anaesthetic. The egg cells are then fertilised using sperm cell from another source. In order to bring IVF's major player—the embryo—onto the scene, the egg cell is transferred not only to other countries and cultures, but, once it has been fertilised, into other bodies and other social classes. Thus, IVF makes it dramatically clear that reproduction today is a dividuation process that is carried still further by being anonymised, and can also be a sophisticated bio-socio-technological process which affirmatively leaves behind any understanding of the individual.

From the queer perspective, artificial fertilisation processes are, in principle, affirmed, precisely because IVF displaces the earliest stage of life from the gendered, sexual body to the laboratory. Thus, heterosexual coitus is no longer interpreted as the beginning of the human being. Likewise, the status of a pregnant woman's body as the primary signifier of the event of reproduction is placed in question. The embryo can even be implanted in a person who does not unambiguously feel themselves to belong to the female gender—such as a man with a uterus, as in the case of Thomas Beatie. Thus, IVF can circumvent heteronormative arrangements and individual-centred notions of identity, and lay the foundations for queer/feminist understandings.

Rosi Braidotti emphasises that all of this goes hand in hand with a new non-linear way of managing time. In artificial fertilisation, the whole process is dismantled into discontinuous stages: aside from preparation through the administering of hormones, the removal of substances, and artificial fertilisation and cell division in vitro, the freezing of sperm and egg cells in particular removes the normal time parameters of reproduction, allowing for revival, discontinuous removals, crossing with others, and, thus, a not readily comprehensible politics of dividuations. Braidotti sees this desire to supersede generational time and the line of descent as indicative of a fascination with parthenogenesis and a denial of the origins of human life within the female body: "The merry-go-round of bodily parts, or cells, or tissues, that do not belong anywhere lays the preconditions for the fantasy that one does not really come from anywhere specific, from any bodily point" (Braidotti 1994, p. 65).

As if these technological dividuation practices were not enough, the single person's body is also subject to informational access, further blurring its boundaries and denying its coherence: "Two corporealities slide into one another, one of which—the ever more important data body—blurs with the quasi-body of the data mass of the whole population" (72). Through its union with data archives, the bio-technological body schema produces a new bio-socio-technological schema that can no longer be attributed to exceptional single subjects: "The definitive boundaries previously accepted as natural—between individuals, between individual and species, between inside and outside—must be transformed into relative boundaries. To be more precise: they become relativised in favour of the possibility of operative manipulation" (Gehring 2006, p. 32). Body tissue donations, samples and bio-banks tell of a body schema that is based upon epistemological and real subdivisions and partitions, and extends into practices such as organ trafficking, and the exploitation of specific genetic material for medical purposes. The interchangeability of bodily substances (through transfusion and transplantation) and the interconnection of donor and recipient's data transform single persons into objects of heightened scientific and economic interest. All in all, the data materiality of human beings is being made productive and capitalised, and the biological body is being transformed into a medium and into a valuable piece of property. Some people try to add still more value

to this property through cosmetic surgery, by having old organs or cell conglomerates replaced with new ones, thus heightening their dividuations in the process. Thanks to these wilful self-subdivisions, the body appears to us today as a multiply dividuated and further dividual entity, as a resource, a process, an achievement, a tool and a commodity.

Gehring believes that, in view of these differing bio-technological practices, including those of neurobiology and brain research, the body has been reduced to a "piece of tissue of the collective" (200), and to a manifestation of a "global material." Brain researchers, who, like cosmologists, believe that they can hold the whole world in their hands in the form of the brain, that complex non-linear world of multiply interconnected nerve cells, are already envisaging the possibility of culturing artificial neural networks, which could then be used to replace ageing brain regions, interacting with those brain regions still in place. The fantasy of replacing brain parts, however, also undermines our understanding of ourselves as individuals as nothing else could, even though brain researchers might object that the conscious identity remains.

Notwithstanding this, this bio-socio-technological dividuation process is evaluated in highly different ways. Mateo Cueva cites a UNESCO report that issues an explicit warning concerning the alteration of the human system: "that, in the long term, nano-medicine could allow people to modify themselves so much it would no longer be possible to talk about 'human beings'" (Cueva 2010, p. 94ff.). The danger warned of here is that these technological manipulations of the organic will, in the long term, produce a post-human being who, partly thanks to financial means, has artificially heightened physical and intellectual capabilities—thereby adding a further and more acute aspect to the unequal distribution of wealth.

In conclusion, Gehring emphasises that the vanishing of the sensory/unambiguous boundary of the body and the increasing utilising of bodily substances brings with it the vanishing of a legal threshold, as the owners of the biological resource are entitled to make the decisions on its use and utilisation: "The living body is usurped by civil law categories. Secondly, technologically defined boundaries are replacing the sensory gap that was formerly decisive for the law" (52). She calls for new legal categories for these changed conditions, as traditional legal statutes are unsuitable.

Bartha M. Knoppers and Ma'n H. Zawati, on the other hand, express the hope that the emergence of new bio-technologies and their application—notably genetic tests and bio-banks—will cause bio-ethics to abandon its individual-oriented principles and to orient itself more strongly on shared, common factors. In fact, they welcome signs of a communitarian change in bio-ethics that suggest that in future bio-ethics will evaluate participation in "biological material" or "human matter" (Knoppers 2012) and consider which dividuations are desirable. Rosi Braidotti similarly recognises positive epistemological/ethical effects in the bio-technologies, precisely because these technologies are no longer solely attuned to single persons, or even solely to humans. Instead, she says, they bring to light the interferences "of material, bio-cultural and symbolic forces in the making of social and political practices" (Braidotti in Weiss 2009). She believes that such a politics of "life itself" (113)—what she calls "Zoë or post-human force"—has the benefit of questioning the power of the single person, and the epistemological-political orientation on selves and the indivisible. She believes that the "mutual interdependence of material, bio-cultural, and symbolic forces" (114) will produce new subjectivations that, as Braidotti herself hopes, will pave the way for a new life-centred egalitarianism. In "Zoë," her post-human force, she sees the opportunity for the epistemological change that she believes to be essential. One part of this change is the relativising of anthropocentrism, and the perceiving of human existence as embedded in zoobiological issues. The understanding of human identity as being enduringly the same is replaced by a view based upon "the recognition of a difference that cannot be reconciled" (112). One might object to Braidotti's views by saying that such recognitions do not preclude the formation of new hierarchies based precisely on the differences of vital potentiality and wealth spectra.

As a result of this, we finally come to the issue of "genetic governmentality," which poses a question concerning the extent to which, as a result of their "geneticising" (Lemke 2000, p. 49) and the decoding of their personal genome, single persons find themselves oriented more towards structural commonalities, or towards their own distinctiveness—and their own personal risk factors. Martin Weiss, for his part, associates this geneticising event with subject-related socio-political hopes: "In the

moment in which the biotechnologies begin to dissolve the autonomous subject into a material/immaterial body composed of biological molecules and statistical probabilities, a move away from the person-centred autonomy principle and toward community and the principle of solidarity takes place within bioethics" (Weiss 2009, p. 52). He is not prognosticating a form of condividuation of self-transparent single persons; instead, he is prognosticating the advent of new discourses and norms, in which heteronomy and self-regulation are not sharply distinguished, and are not regarded as contradictory. It is not only that the Icelandic Health Sector Database has proved that, due to the high level of genetic homogeneity among the Icelandic population, it is not possible to establish which individual any data record might belong to—an unparalleled argument for the dividuation theory. The Icelandic database project additionally made it clear "that, in an age of genetic technologies and biobanks, the boundaries between the individual and the population, between the person, the family, the population, and the species are becoming ever more permeable" (45). Hawaii is often mentioned as an example of this; in Hawaii, those persons who show a combination of Asiatic, African, European, Australian and American genetic material are considered to be the most "contemporary", and to show the way for the future.

One significant area in which we are confronted with the problem of the boundaries of the "individual" today is the scientific and legal definition of death, and how, correspondingly, we should act in relation to it. In Germany, brain death is treated as the boundary at which, in the context of advanced intensive and resuscitation medicine, a phenomenon of disassociation is diagnosed, indicating the end of individuation and the beginning of the disintegration of the organism. However, as resuscitation measures can maintain the circulation, heart and lungs in a living state for a certain space of time, "disassociative brain death" describes the disassociation between the no-longer-functioning brain and the body's other organs, which are still functioning with the aid of life support machinery (c.f. Bonelli in Weiss 2009). Without the ability to self-regulate, the semi-dead body is regarded as alive only in a purely vegetative state, and is described as an "organ biotope" (104). Controversy nonetheless persists as to whether the brain-dead person should be regarded as purely the sum of the parts, having lost the higher-order

totality, the capacity for self-integration and a "terminal organ," or as an "organism in its totality minus the brain" (Pöltner in Weiss 2009, p. 140), or whether a brain-dead person can actually still be understood as a "living human organism." The discussion concerning brain death as the end of the individual life shows once again, in a different way, that the definition of "individual" is anything but unambiguous, and that the single person who has lost integrative brain function, so that only their heart and lungs continue to live, can be understood as the "lowest" and poorest manifestation of dividuation. However, even this intermediate state between life and death now has a political and economic relevance, insofar as brain-dead persons are not permitted to die owing to the need for organ donation.

Notes

1. Cell plasma extrusions.
2. As Wägele writes, the phylogenetic concept of species states that species are reproductively isolated groups of natural populations: "They arise through a speciation event and are superseded by subsequent speciation or removed by extinction" (Wägele 2000, p. 57).
3. Following a fire, new species that behave in a different way move into an area, producing diverse "assemblages and mosaic of forest types" (204) that may be more resistant to damage. Wind plays a major role in the renewal of forests: "Wind affects vegetation in several ways, from cooling foliage to boundary layer effects and mechanical damage" (206). Vulcanism may also destroy vegetation across large tracts of land (cf. Boyle and Boyle 1994).

References

Ackerman, Jennifer: "Titelthema Mikroben. Tausend Billionen Freunde," in: Spektrum der Wissenschaft, Heidelberg, November 2012, pp. 27–33.

Agapow, Paul-Michael: Species. Demarcation and Diversity, in: Andy Purvis and John L. Gittlema (eds.), *Phylogeny and Conservation*, Cambridge: Thomas Brooks, 2005, pp. 57–75.

Amann, Rudolf and Roselló-Mora, Ramón: "Mikrobiologische Aspekte der Biodiversität," in: Janich, 2001, pp. 161–180.
Anderson, Anthony B. and Jenkins, Clinton N.: *Applying Nature's Design*, New York, 2006.
Bölker, Michael: "Revolution der Biologie?," in: Dabrock, 2011, pp. 27–42.
Bonelli, Johannes: "Leben – Sterben – Tod," in: Weiss, 2009, pp. 83–112.
Boyle, Timothy J.B. and Boyle, Christopher E.B. (eds.): *Biodiversity. Temperate Ecosystems and Global Change*, Berlin, 1994, p. 3.
Braidotti, Rosi: *Nomadic Subjects. Embodiment and Sexual Difference in Contemporary Feminist Theory*, New York, 1994, p. 65.
Braidotti, Rosi: "Zur Transposition des Lebens im Zeitalter des genetischen Biokapitalismus," in: Weiss, 2009, pp. 108–135.
Brandon, Robert N.: *Adaptation and Environment*, Princeton, 1990.
Brandon, Robert N.: *Concepts and Methods in Evolutionary Biology*, Cambridge, 1996.
Briggs, Derek E.G. and Crowther, Peter R.: *Palaeobiology II*, London, 2001.
Cueva, Mateo: "Die Magie der kleinen Teilchen," in: Nano. Gen. Tech, Edition Le Monde diplomatique, No. 8, Berlin, 2010.
Dabrock, Peter et al.: Einleitung, in: Peter Dabrock, Michael Bölker, Matthias Braun and Jens Ried (eds.), *Was ist Leben – im Zeitalter seiner technischen Machbarkeit?*, Freiburg and Munich, 2011, pp. 11–24.
Davies, Paul and Gribbin, John: *Auf dem Weg zur Weltformel*. Superstrings, Chaos, Komplexität, Berlin, 1993.
Diamond, Jared: *The Third Chimpanzee*, New York, 1992.
Gehring, Petra: *Was ist Biomacht? Vom zweifelhaften Mehrwert des Lebens*, Frankfurt a.M and New York, 2006.
Golley, Frank Benjamin: *A History of the Ecosystem Concept in Ecology*, New Haven and London, 1993.
Gould, Stephen Jay: *The Structure of Evolutionary Theory*, Cambridge, 2002.
Haraway, Donna: *Simians, Cyborgs, and Women. The Reinvention of Nature*, London, 1991.
Hennig, Willi: *Phylogenetische Systematik*, Berlin and Hamburg, 1982.
Janich, Peter and Weingarten, Michael: *Wissenschaftstheorie der Biologie. Methodische Wissenschaftstheorie und die Begründung der Wissenschaften*, Munich, 1999.
Jones, Steve: *The Language of the Genes*, London, 1993.
Kalender, Ute: "In vitro," in: Nadine Marquardt and Verena Schreiber (eds.), *Ortsregister*. Ein Glossar zu Räumen der Gegenwart, Bielefeld, 2012, pp. 138–144.

Kasper, Cornelia: "Von der Zelle zum funktionalen Gewebe," 2010. http://www.uni-hannover.de/imperia/md/content/alumni/unimagazin/2010/08-11__kasper_internet.pdf

Kauffman, Stuart A.: *The Origins of Order. Self-Organization and Selection in Evolution*, New York and Oxford, 1993, p. 237.

Kim, Jan T. et al.: "Biodiversitätsmessung bei Pflanzen anhand molekularer Daten," in: Peter Janich, Mathias Gutmann and Kathrin Priess (eds.), *Biodiversität*. Wissenschaftliche Grundlagen und gesellschaftliche Relevanz, Berlin, Heidelberg, 2001, pp. 181–234.

Kirchhoff, Thomas: *Systemauffassungen und biologische Theorien. Zur Herkunft von Individualitätskonzeptionen und ihrer Bedeutung für die Theorie ökologischer Einheiten*, Freising, 2007.

Knoppers, Bartha M.: Ma'n H. Zawati, "Biobanks," in: Ruth Chadwick (ed.), *Encyclopedia of Applied Ethics, Volume 1*, Amsterdam, Heidelberg and London, 2012, pp. 246–250.

Latour, Bruno: *Das Parlament der Dinge*, Frankfurt a.M., 2010.

Latour, Bruno: *Politics of Nature. How to Bring the Sciences into Democracy*, London, 2004, p. 125.

Lemke, Thomas: "Die Regierung der Risiken. Von der Eugenik zur genetischen Gouvernementalität," in: Thomas Lemke, Ulrich Bröckling and Susanne Krasmann (eds.), *Gouvernementalität der Gegenwart*. Studien zur Ökonomisierung des Sozialen, Frankfurt a.M., 2000, pp. 227–265.

Levit, Georgy S. et al.: "Von den offenen Grenzen lebender Systeme: Individualität in biologischer Sicht," in: Gerhard Aubrecht et al. (ed.), *Evolution – Phänomen Leben*, Linz, 2007.

Martin, Christian: "Zur Logik des Lebensbegriffs," in: Peter Dabrock et al. (ed.), *Was ist Leben – im Zeitalter seiner technischen Machbarkeit? Beiträge zur Ethik der Synthetischen Biologie*, Freiburg and Munich, 2011, pp. 117–146.

Pöltner, Günther: "Die theoretische Grundlage der Hirntodthese," in: Weiss, 2009, pp. 125–146.

Rifkin, Jeremy: *Declaration of a Heretic*, Routledge & Kegan Paul, 1985.

Rosado, Johannes: "Ontologische Unterscheidungsmerkmale des menschlichen Lebens," in: Martin Schwarz and Johannes Bonelli (eds.), *Der Status des Hirntoten. Eine interdisziplinäre Analyse der Grenzen des Lebens*, Vienna and New York, 1995.

Sober, Eliott: *Philosophy of Biology*, Oxford, 1993.

Trepl, Ludwig: *Allgemeine Ökologie, Volume 1*, Frankfurt a.M., 2005.

Wägele, Johann-Wolfgang: *Grundlagen der Phylogenetischen Systematik*, Munich, 2000.

Walz, Norbert: "Die leidende Natur," in: Dabrock, 2011, pp. 251–276.
Weiss, Martin G.: "Die Auflösung der menschlichen Natur," in: Martin G. Weiss (ed.), *Bios und Zoe. Die menschliche Natur im Zeitalter ihrer technischen Reproduzierbarkeit*, Frankfurt a.M., 2009, pp. 34–54.
Wiesemüller, Bernhard, Rothe, Hartmut and Henle, Winfried: *Phylogenetische Systematik*, Berlin, 2002.
Wilson, Edward O.: *The Diversity of Life*, Cambridge, 1992.

5

Socio(techno)logical Dividuations

World Society (or Societies)

Described as "cosmopolitical," Ulrich Beck's sociology aims to distinguish itself from any universalist sociology in that its chosen object is not abstracta such as "the world system" or the "autonomous individual." Instead, its methodology aims to "[place] in the centre […] key terms such as contingency, variability, interwovenness and the methodological questions that they pose" (Beck 2010, p. 19). Extending the assumptions of the French poststructuralists who see the collapse of biographical and nation-state "totalities"[1] taking place at the end of the Second World War and place world-becoming in an epistemological relationship to any selected way of description, Beck states the impossibility—as a consequence of increasing globalisation—of giving an indisputable and non-particularised observer standpoint:

> A cosmopolitical sociology cannot understand the globe as a territory in which the "rules," "system premises," and "values" of western modernism are enforced in processes of evolutionary modernising. A fixed point no longer exists from which changes, including local and national processes,

M. Ott, *Dividuations*, DOI 10.1007/978-3-319-72014-2_5

> can be appropriately analysed and understood. […] There is […] no longer a legitimate key point or vantage point from which a perspective for everyone can be declared. (Beck 2010, p. 19)

Beck thus outlines an inescapable epistemological relativism that, specifically in the context of globalisation, leads to sociological statements being made only for given frameworks and selection of phenomena, plus the time factor and the manner of perspectivation. At the same time, his analyses speak of a non-explicit Eurocentric perspective: to allow his theory to address global displacement and the associated lack of an overview, he heavily emphasises the "structural fact content" (20) of "institutionalised individualisation," which he understands to mean the binding character of the basic rights, the choice of life path, and the risks for the (Western) single persons and the differentiation of social and legal structures that goes hand in hand with their individualisation:

> Central institutions such as civil, political, and social basic rights are today addressed to the individual, and definitely not to collectives and groups. The education system, the labour market dynamic, career patterns, and, indeed, mobility and markets have individualising consequences. […] Individualising means […] a structural change that shows itself not only e.g. in familial pluralisation tendencies but is also empirically evidenced in institutionalised change tendencies, for instance in law. (20f.)

Aside from the fact that basic rights can, in principle, be demanded by everyone worldwide, Beck's society description has its eye on the highly differentiated Western education and labour market systems—addressed to each state citizen as a single person. He fails to consider that mobility and markets do not inevitably operate in an individualising way, at least not in a substantial or at any rate in a statistical sense. Beck makes no mention here of neo-liberalism's promotion of structural change, which in fact drives the tendency towards "in-sourcing," towards the transference of certain functions and responsibilities to the single persons, e.g. financial security in old age, which was previously borne by the nation-state: "The institutionalised individual is paradoxically stylised to *the* compensation agency for all that no longer functions in society" (21).

Tellingly, Beck calls this theory of forced (Western) individualisation a "crisis theory" that seeks to make visible the "transformation process of grammar of social inequalities" resulting from the social transference of burdens to the individuals, but also raises questions relating to the destructuring and restructuring of the social dimension globally.

The diagnoses of contemporary subjectivation processes by other sociologists, philosophers and psychoanalysts are likewise sceptical regarding global development, with non-explicit assumptions of loss: whilst Deleuze sees the "transition to the digital" increasingly causing changes in temporal and spatial orders in human subjectivations:

> In the disciplinary societies one was always starting again (from school to barracks, from the barrack to the factory), while in the societies of control one is never finished with anything—the corporation, the educational system, the armed services being metastable states coexisting in one and the same modulation, like a universal system of deformation. (Deleuze 1992, p. 5)

In the societies of control, we find ourselves no longer dealing, as Deleuze states, with the mass/individual pair. "Individuals have become '*dividuals*' and masses, samples, data, markets, or *banks*" (5); Or, to use the animal metaphor: "The old monetary mole is the animal of the spaces of enclosure, but the serpent is that of the societies of control" (5).

Richard Sennett (Sennett 1998) likewise emphasises the permanent flexibilising of single persons. Jean Clam, (Clam 2012) speaking from a psychoanalytical perspective, diagnoses an isolation and hardening of the contemporary single existence of the Western world: because it no longer knows and no longer desires the bodily/affective penetration relationships of previous or other-culture ways of living, it imprisons itself by shutting itself into its purely psychophysical existence and its privatised desires, and separates itself in imaginary-real terms from the social field and from the relationships it offers: "The de-corporealising of the bodies is like a releasing of individual bodies in a vital-functional space of non-relationship" (439).[2] Clam claims to recognise the basic feature of today's enforced individualisation in this imaginary-real separation from the social dimension and the public concerns that he considers to be more

fundamental than the displacement and connection processes induced by world society.

Niklas Luhmann (Luhmann trans. Barrett 2012) also observes the late twentieth century bringing decisive changes in social system formation that extend to human subjectivation. As previously mentioned, Luhmann historicises the individualisation process, and criticises the theoretical autonomising of the single person in the nineteenth century as self-delusory. After all, human subjectivation is produced only through the language sphere's "operational couplings" (126) (in this he echoes psychoanalytical assumptions): it is in the "autopoietic system of linguistic communication" (126) that single human persons become participants in a form of the "co-evolution between individuals and society" that may "overdetermine any co-evolutive relationships" such as that of the mother–child relationship. (126) With this emphasis on co-evolutions, Luhmann indicates how little individuality he attributes to human individuals, even if he does call them individuals to the last, in spite of a certain divided and medially occasioned "similarity of purpose" (184) with innumerable others.

Because of worldwide communicative intermeshing, with the majority of humans participating in the socio-technologies of mobile telephony and the Internet, he sees Western society as outlined by him inevitably growing together with other societies, including non-Western societies, to become a "world society."[3] Thus, he does not distinguish between single human and institutional communicators, between the exchange of private concerns and inter-state accords, between communication-reflexive users and economically interested data administrators. Since he sees society primarily as defined in a purely formal way, via the praxis of communicative and micro-structural participation of various speakers and their growing interconnection, there can be only "a single social system for all communication capable of connection" (145): an abstract and finely meshed construct that remains established and functional according to the "interactivity" of participants, independent from their content, agreements and coherence-fostering factors. He lists the following as necessary criteria for the growth of world society: worldwide interaction, number of participants, the desirability of interaction, its multiplication and temporal duration, and the permeability of social boundaries

(Luhmann 2005, p. 66). In outlining this network structure, he says nothing about factors that might hinder free communication and the formation of the world society: nothing about technology-based information pre-structuring and knowledge hierarchising on the World Wide Web, on economic interests' surveillance and recording strategies, on unequal worldwide distribution of the corresponding technology and infrastructure, on politically and religiously motivated hindrances to participation, all of which gain relevance from the perspective of a world society that can be maintained only through communication. No further socially constitutive parameters, culture-technical abilities and memories, society-related affects, imaginary and symbolic readinesses or (contrary) power and domination strategies are taken into account.

World society—a term that Beck demarcates from the universalist concept of "world system" and that Luhmann, because of its purely formal, micro-structural, and self-sustaining character, holds up as an expandable, self-complicating, primarily jointly generated and difference-forming structure—appears as an affirmable and future-oriented, because duplicatable and self-duplicated, complex of linguistically conveyed exchange and negotiation events, in principle open to all, growing out of equal voluntary participation and spanning nations and cultures. In this profile of a form of sociality that is egalitarian and dependent on the sum and quality of the participation, no account is initially taken of the extent to which it is subject to extra-communicative conditions, technological dictates, private economic controls, the influences of state power, and other factors besides.

Luhmann's optimistic description shows itself to be inspired by Leibniz's monadic duplication model, insofar as—similar to the Leibniz assumption of the potential unfolding of the universe from any atom, any point in the universe—it sees the world society as arising from every particular society and out of its multiple messages, sent around the world and feeding back. Specifically, if the majority of a society's inhabitants have worldwide communication links, then we might say, as Luhmann does, that the particular society, of itself, "construct[s] a world, thus resolving the paradox of the world observer. […]The semantics of the world varies with the structural evolution of the societal system; but seeing and saying this belongs to the world of our society, is its theory and

its construction of history" (Luhmann 2012, p. 90). Interestingly, Luhmann outlines an image of world society as numerous interlocked particular world societies and their particular/world society-related observers. As an epistemological model, this oblique interlocking of world societies and their unfolding through each other is reminiscent of the discursive plateaux outlined by Deleuze and Guattari (Deleuze and Guattari, trans. Massumi 1987) that intercross transversally, fertilise at certain points and do not resolve into any all-encompassing level—thus, dividuation processes on a global level. Bettina Heintz also sees a world-becoming arising regionally when "persons from far-removed regions" (Heintz 2007, p. 348) are not only brought together internationally, but also "observe [themselves from the] perspective of a global audience" and deal with "global problems." Since communicative processes frequently develop an autopoietic movement beyond the communication intention, the "unforeseen" (345) also arises within functional systems, which may be of significance even for those not participating actively in world-becoming. According to Heintz, meaning-bestowing processes always take place in a regional-global way when communicators imagine themselves as participating in world society, engage with questions of world-becoming, and commentate as part of world society.

Luhmann and Heintz understand world society as a plurality of unequally paced, partially reinforcing world societies that articulate through each other, that can unfold from any point on the globe and that sacrifice their nation-state/individual profile in favour of participating in communication that is not fixed in space-time. At the same time, the way Luhmann emphasises the exclusive restriction of the term "world society" to "connection-capable communication" suggests that we must presume the existence of further societies parallel to or within it—excluded inclusions, as it were. Luhmann himself does admit the existence of "particular" societies parallel to world society, insofar as they are not communicatively connected with it, or their communication has no consequences on a global level. One objection to this is that the particularising of societies does not solely result from their connected status being limited or consequence-less. After all, the differences between nation-states' societies do not vanish even when they are connection-capable and connected—and this is because they communicate internally and with other societies with

differing intensities. Since they additionally maintain privileged economic/political cultural relationships with other particular societies and in turn integrate these into expanded interest and communication associations—such as in the European Union context—they do produce transnational but nonetheless territorial, culturally or religiously specific, sharply politically demarcated world societies. In the globalised era, we also observe that regions in particular are conscious of their indigenous culture and seek to bring forth world societies as 'glocal' entities. Luhmann speaks in a sense that is again different—and opposed to his initial definition—of "regional" differentiations of world society in "nation-state" forms and traces this back to the different political/juridical systems and the functional systems associated with them. Additionally, he makes distinctions among production and sales, working and credit systems, in terms of factors such as industrialisation, urbanisation, and social and symbolic differentiation, but offers no thoughts on the transnational distribution and domination-oriented structuring of the globe through such once regional systems. If, however, he wishes to explain the regional differences based on "differences in the involvement in and reaction to the dominant structures of the world system of society" (Luhmann 2012, p. 96), an entirely different understanding of world society emerges. For "the dominant structures of the world system of society" are no longer the result of the free microstructural synchings of single persons to an internally mobile world-communication, but of macro-structural and historically established conditions of a successively formed political/transnational function distribution on a global level, which striate and co-organise communication.

Thus, multi-scalar processes of world-becoming can be made out within the world-spanning and continuously growing linguistic world society that nourish, influence, disrupt, hinder and forcibly appropriate that world society, making it evident that the desired multi-lingual world society is not an equally accessible, not pre-structured and uncontrolled structure that grows purely out of voluntary participation and is accessible to all in equal measure. The world-society-becoming, which is most certainly not a participation action distributed evenly over the globe, is concentrated according to historically developed nation-state hierarchies and global centre periphery gradients, and it differentiates itself through

transnational political alliances and conventions, through regionally organised economic communities and their trade and mobility restrictions, through institutions that are assignable to nation-states but operate worldwide, such as news agencies and their omnipotent recording strategies, through transcontinentally active economic corporations that reinforce unequal participation, but also through environmental catastrophes, quasi-autonomous financial developments and so forth. These hard structurings of world society-becoming, in principle, affect and co-opt everyone, albeit to different degrees; thus, I would speak of world society-becoming increasing the dividuation of the single person precisely because of the simultaneity of participation offers and enforced participations. Today, admittedly, it is additionally clear that it is not only our single selves but societies as a whole that are co-opted into manmade and non-manmade processes, interwoven with other and other-cultured societies and compelled to negotiate over resources, political responsibilities, population quanta, climate goals and so on, for which reason we must also speak of dividuation processes on the level of societies.

The "world society system" that thus emerges within and in contradiction to free communication society appears as a very rigid structure composed of state and transnational alliances, from their agreements and global function distributions. Luhmann places too little emphasis on the functional differentiation of this growing world society system, which is detrimental to egalitarian participation processes—in the economic realm, for instance, through fixed production locations and quotas, protected by import duties, which hinder the development of more independent and more differentiated regional markets. He does outline certain symbolic consequences of this unequal distribution that are more clearly detectable today:

> Differences in involvement in and dependence on the modernization of world society give impetus to seemingly anachronistic tendencies, especially in religion and the ethnic movements developing within nation-states. The *universalism* of functional systems operating in world society does not exclude a wide range of *particularisms*, indeed, it tends to encourage them. The ease with which world society changes structures is thus compensated for by longer-established and at any rate strongly demarcatory ties. (98)

The strengthening regional particularisms, primarily of a religious/political type, may exceptionally inhibit the desired participation of single persons in world society-becoming. Admittedly, recent political revolts have made it plain that communication participation can very much succeed—briefly—in overcoming political or religious hindrances and allowing people to participate, including those formerly politically excluded.

The fact that a social model derived solely from the active exchange of linguistic/technological communication is inadequate to describe diverse social processes, because it fails to take into account other socially constitutive processes, is today emphasised by sociologists oriented on actors, actions, affect and environment.[4] Their justifiable objection to Luhmann's theory is that, whilst the world society may provide a horizon and orientation framework, it is not a society, as societies are founded in culture and constitution, in history and collective agreement, in belief convictions, in the lending of meaning and medial problem-solving strategies: these qualities are required to explain their form of participation in world-becoming, their world sociation mode, and also their type of distancing and particularising. As Jean Clam clearly demonstrates, the social space, even in times of globalisation, is:

> inwardly substantiated through emphatic affirmation of the nomic, outwardly cordoned off through rejection of the anomic as abhorrent. *Sociation is affectively nourished and reinforced*. It draws its being *from the affection of world access* and the fostering of the accessed through exceptionally powerful, affectual crystallisations of non-conditional apotrophy. (Clam 2002, p. 90, trans. A.K., emphasis in original)

Thus, it is not enough to attribute the world society's horizon of meaning solely to "intersubjective expectation formation" (Luhmann 2005, p. 67), to "worldwide traffic" (68) or to "those interaction fields of science and technology, economy, that have become universal." Even the "sense for heterogeneity"[5] that is indispensible for world societies can only conditionally be utilised for their necessarily non-identical and reflexive self-understanding. Clam's objection is that meaning does not result predominantly from cognitive insights and media interactions, but proceeds

from passive geneses, unconscious affect transferences, divided traditions and contested narratives. It must be assumed that, likewise, the exchanges of the communicative world society—which cannot be anchored in binding and clearly unambiguous affective and value-setting foundations for fear of ideological totalising—are nourished by affection processes and become concentrated according to their repeatability. These are required for the maintaining over time of participation, the continued sharing of interests, and the socially constitutive intensifying of communication.

Luhmann himself admits that an "etcetera" is implicit in communicative interaction, representing hopes of the continuation, acceleration and concentration of the exchange. Even so, he denaturalises the "infra-societal" relationships in order to make visible a micro-structural world society which he believes he can state actually feeds back into itself precisely *because* of the lack of affective/idea-related disambiguation as a self-reflection and increased communication, gaining a greater range of communication and relevance thanks to its non-determinate nature. He associates the propagation and spread of communication with not inconsiderable hopes for civil society: above all, with hopes linked to expanded knowledge distribution through the opening-up of new access possibilities for knowledge for all, the neutralising of "exceptional social links to the sources of knowledge," and the establishing of a "worldwide public opinion." Presumably to distance himself from Habermas's claims of communicative rationality, he understands this not as a promoter of consensus building, but of increased reflection on self: "Its function lies not in social integration, but in enabling an observing of observers" (Luhmann 2013, p. 116). In this potentiation and self-reflection of observation, society converts its "expectations and disappointments into communication and produces a self-illusioning symbolism targeted precisely upon this, above all in the political system" (765f.).

As Luhmann's sociology is devoted to environment as well as society, he repeatedly specifies how he wishes environment to be understood. Initially, he rejects the equating of environment and nature and rules out a direct transfer of environmental irritations/stimulations into the communication system. However, he then admits that owing to "environmental impacts" (Luhmann 2012; p. 116), the system can develop

"self-irritations" and transfer these into communicative difference formation. Communication can take place within the system on the scarcity of resources or changes in environmental conditions, with decisions made on corresponding measures. Admittedly, he believes he can observe environmental causalities changing the conditions for the selection of system operations only marginally, even if interactions, mediated via "structural couplings" (130) are possible: in this way, system operations may be restricted or promoted by environmental conditions. Of relevance in this context is the fact that he describes the system–environment relationship as modified by societies' contemporary increase in complexity: "the causal contact surfaces between communication and noncommunication, and thus between the society system and its environment, change, and thus the observation and thematising of causalities also change through communication" (132). As complexity increases, an increase in "degrees of freedom" can be observed, which we "can exhaust for as long as it is possible, that is, for as long as the environment will tolerate it. […] The overall effect, however, is, according to everything that one sees, not adaptation, but reinforcement of deviation" (133).

With regard to the methodical emphasising of reinforcement of deviation in world society, the environment concept is multiplied, now to be utilised for the determination of world society's continued differentiation. It is not only that the single person continues to be understood as the environment of the differentiating function systems—as the single person already is in particular societies—since the person, although principally included in all, is at the same time excluded through non-participation in certain isolated function systems. Above all, functional systems, because they are autopoietically closed, form, in their turn, environments for one another. Today, this applies on a grander scale, as they no longer represent partial systems in a particular society, as can be seen from the globalised art and economic system. Luhmann therefore refers to them as "world function systems." Contingency exclusion and complexity reduction mean that a world function system, such as that of art, can function as the environment of another world function system, such as that of economy. In more recent times, however, it has also been indicated that function systems, owing to their communicative interconnection with each other and general dependence upon the economy, maintain in their turn dividual

relationships to each other, thus tending to forfeit their environment status relative to each other. Luhmann ultimately calls everything not part of interpersonal communication 'environment,' even the artefacts and symbol systems, such as artworks, regarded by other sociologists as primarily socially constitutive. As is evident, Luhmann's understanding of environment is problematic from the point of view of world society, since 'environment' has to describe a diverse inner outside space of communication systems and yet at the same time is inseparable from them. The communication processes are not just connected to the specific function systems; they interpenetrate and constitute them, maintaining a relationship of different indistinguishabilities with them. Without communication, no function system can arise; additionally, their communication always extends beyond their special area of rationality, connecting it with multiple factors that are defined as its environment. Thus, tendencies toward dissolution become evident in the differentiated function systems and communication-occasioned dividuations.

In particular, Luhmann's treatment of society and environment as opposites is criticised by the theoretical approach that aims to expand the object of sociology beyond communication and incorporate "socially relevant non-communicative factual content and events:"

> because the whole globe is in principle of sociological interest as a "culture landscape" formed by human interventions. If one incorporates all artefacts and symbol systems produced by human beings in social contexts into the social [sphere], then the whole globe—including the rivers and rail lines traversed by humans, the […] air pollution, the buildings and telecommunication signals etc.—is society. Conversely, if one excludes artefacts (e.g. buildings and tools), part of the social praxis (e.g. humanity's involvement with their natural environment, such as through work) and parts of symbolic systems (e.g. clothing and cars) from the concept of communication, the result is a very strange "intellectualised" society with no reference to surface area extensions. (Pries 2008, p. 46)

In view of such a propagated way of taking factors into account, world society appears as a hard-to-comprehend fabric of socially relevant processes that can only be described by selecting a particular segment, a special type of world society-becoming. Thus, an explicitly environmentally

oriented sociology (Mol 2008), which is discussed in depth in the next chapter, shifts the attention to the mutual dependence of social and ecological concerns and conceives of the social, echoing Bruno Latour's conception of a "physical sociology," as fundamentally interwoven with "the natural." It calls for recognition of "hybrid systems as systems in which material and social entities can no longer be separated in a meaningful way" (75). The argument is that Beck's concept of the risk society in fact only makes sense when the interwovenness of social and natural processes is part of the picture.

The communication processes understood by Luhmann to constitute society, however, themselves become incomprehensible if their specific conditions and participation modalities are not included in the picture—if, for instance, the migration-occasioned trans- and composite-cultural communication needs or the technological or politics/religion-based hindrance to communication is not included in reflections. Concrete communication cannot be separated from its environmental conditions, from precarious identity constructs, any more than it can be separated from the "global divide" of participation possibilities. In this sense, Luhmann does admit, speaking of the present-day, that: "the communication system society is becoming more and more dependent on technologically determined structural coupling with its environment. Susceptibility to failure is increasing, and with it the technical and economic cost of safeguards against breakdown" (Luhmann 2012; 180). Even so, his understanding of interaction between technology and single human or social articulation capacity remains unclear. On the one hand, he assumes that digital media trigger changes in psychic and social systems, thus emphasising interpenetrations of human consciousness and society and at any event suggesting dividual relationships. On the other hand, he repeatedly stresses that the whole physical world can "affect communication only via *operationally closed* brains, […] and thus only through 'individuals'" (63). This emphasis on the individual as filter and transformer of environment in communication appears to contradict his understanding of the world-horizon as largely supplied by image-sound communication, meaning that the formation of a special world-relationship beyond image stereotypes appears barely possible: "Since audiovisual transmission can convey perception completely, the possibilities and necessities of individual imagination do

not come to bear" (184). Although Luhmann is outlining de-individualisation processes via perception participation here, he continues to speak of "individual-mass reception" of images, making communicating in order to convince unnecessary. If nothing else, his observation of "similarity of purpose" (184) produced by the TV screen betrays a (negative) understanding of dividuation in the synchronised audience.

Clam sees the interpenetration as resulting from the shared generation of meaning necessary precisely because of the closed nature of the consciousness systems:

> Because two consciousnesses are structurally in no position to reach one another, communication becomes functionally possible and meaningful. A consciousness may under no circumstances experience what another experiences. Consciousnesses are separated monads that can never fuse their experiences—that is, their states and experiences. This is the starting point for the emergence of communication as an operative system, which overcomes the paradox of beings who are in all respects analogous, and yet are unreachable to each other. (Clam 2004, p. 158.)

One might object that, whilst consciousnesses cannot reach one another as a "whole," they do nonetheless take part in many processes with related interests and identically directed attention, thus colouring themselves similarly affectively, perceptively and cognitively. Today, this interpenetration appears to me to be more strongly promoted by the media coding of our capacity deployment, its increased stimulation and feeding back in digital communication, through the producing of a sense of belonging together in attendance records, but also in the spoon-feeding of our impulses and interests through predictive movement and consumption profiles, or quasi-simultaneous state-of-mind exchanges.

The media theorist Mark Hansen identifies contemporary human subjectivation as co-conditioned—if not co-constituted—by socio-technological networks. When the technological settings—which already mesh and interact with each other—incorporate their human users, they co-opt their capacities in what may be a very targeted and partialised way. Thus, he sees them addressing single humans as "a complex assemblage of overlapping, scale-variant microsubjectivities"

(Hansen 2015, p. 12) and emphasises the "complex forms of decentralised, distributed power of action into which we humans are today bound." In this sense, he ascribes passive/active capacity to the contemporary technologies themselves, in that, beyond their active application, they possess more performance-capable passive capacities and a sensitivity capacity, allowing them to register and transfer "massive amounts of behavioural and environmental data" (161) without our co-operation. He considers defining our contemporary sociation processes from the anthropomorphic perspective unsatisfactory, as human subjectivations appear to him to be inescapably embedded in, and dividuated by, the "sub-macroscopic or sub-organismic sensibility" (161) of sensory technologies. He sees this intermeshing as positive because it increases human power of action, which he celebrates as a rhythmic compository dance.

Assessing our present-day, the system theorist Dirk Baecker seeks to take Bruno Latour's understanding of sociology still further by emphasising that today it is not simply a case of "the commonality of things and individuals and […] the nature of the matter. Complex relationships, surprising tendencies, strange entanglements, and stubborn states of being intrude too much into the centre ground of attention" (Baecker 2007, p. 167). To make use of Cassirer's function concept, the world is more intensively "to be thought of as relational and limitational in its variability": "We do not know what stands in which type of relationship to what, but we do know that it stands in some relation." Like Bernard Stiegler, he places particular emphasis on the dividuations of human consciousnesses through the technologically enabled fine-tuning of time. He points out that these multiply possibilities for intercrossing time horizons within consciousnesses, because they:

> work with different simultaneity requirements (sociability versus labour division), different loads upon the memory (lightness versus programming) and different determinations by the future (openness versus goal-setting). In the increasing complication of time, modern society is responding to increasing synchronisation requirements that are no longer homogenous and central, and now can only be satisfied heterogeneously and decentrally. (168)

What is critical to the differentiation of time, admittedly, is less the becoming-flexible of human participation than that of institutions and networks which, equally, must integrate their multi-layered character and be "forced into a situation of abstraction," previously unimaginable. Interestingly, Baecker identifies this abstraction situation as a compulsion towards identity assertion on the part of institutions faced with complete inner restructuring—of the staff body, for instance—and towards maintaining a precarious balance in the face of permanent imbalance.

Ultimately, Ulrich Beck (Beck 1997) describes the bringing-together of different institutions and initiatives to form a world society as an irreversible development that forces agents to participate en masse, all the more so since no identity formation of nation-state, society and individual is possible:

> We have long since lived in a world society, and this relates to two basic facts: on the one hand, the totality of non-nation state politically organised social and power relationships, on the other, the experience of living and acting *outside of boundaries*. The unity of state, society, and individual presumed by the first modernity is being dissolved. World society does *not* mean world *state* society or world *economy* society, but a *non*-state society, that is, an aggregate condition of society, for which state-territory guarantees of order, but also the rules of publicly legitimate politics, lose their binding character. (174)

The world society of which Beck speaks appears as a nation-state-spanning action space of different organisations and single persons, largely not tied to territories and without established political negotiation forms. World society's "aggregate state" as he outlines it is inevitably not one but a dividual structure of single and group initiatives, transnational and transcultural connections and boundary-breaking power relationships.

Beck's description of "multiple-location, transnational, glocal biographies of the contact and crossing points of human beings" (178) expanding and propagating in the growing world society is no longer applicable to the Western world. Interconnected single agents or organisations log themselves into various function systems and take part in variously rational processes.

A non-governmental organisation (NGO) can simultaneously co-operate with different institutions in different locations in different ways, can intervene at various neuralgic points of world-becoming, and can at once be involved and not involved. Organisations of this type cannot be described as units or purely as the sum of their single agents, only as temporary allies with divided interests, their solidarity with others dependent on phase, deciding jointly on their modes of participation and their willingness to engage, dividing competencies and modes of action among themselves, self-reflexively and affectively concentrating themselves in articulations, and engaging in joint risks. Thus, they are neither undivided nor subdividable. "With no alternative to cooperation and thus mutually obliged to take account of one another's interests" (185), they extend, as condividuations—partially replacing classical interests representatives such as trade unions—into the decisions of states and, in their transverse network operations, form new socialities.

In this sense, Torsten Junge (Junge 2008) lauds the "dispersion of the political" triggered by the work of the NGO. He sees it modifying the role of the state long term, at least in the Western nations:

> This decentralised social order characterised by equal rights of access to information and knowledge will result in new forms of political self-steering that will change the transformation of the relationship of state and individual in that in future the state will increasingly be moderator and supervisor rather than administrator. (197)

The nation-state is already beginning to be stripped of its political tasks by the numerous single and group agents operating transnationally or even transculturally, and conducting politics in condividual formations. However, one might add that the nation-state of today, far more critically, is restricted in its decision-making powers by transnationally active economic concerns and global players that pursue their economic interests through them and over their heads, making state politics dependent on global economic developments. In view of this, Beck sees an urgent need to develop a "transnational interior politics" (Beck 1997, p. 176) of the type currently beginning to emerge in Europe. Without going into the risks of control, homogenisation and excessive management, he calls

for greater research of the contemporary world-society horizon and its new time dimensions, and hopes that within it the "contours of an utopia of ecological democracy" (170) will begin to emerge.

In a more recent text, on the other hand, Beck's tone is significantly less optimistic; he accentuates the "sudden alienness of society" (Beck 2010, p. 176), including in view of globally organised social inequality. As these contemporary participation inequalities only become visible when one changes perspective, he emphatically departs from the "methodological nationalism" (25) of sociology and seeks to exercise a "cosmopolitan view"(26) that "pursues [an] active transformative, transnational politics of framing." After all, the experience of "globality" permits recognition of cross-border distributions of social inequality not registered by a nation-state perspective. The place of territorial, political, economic and socially established space has, in fact, been replaced by the "*ambivalence* of co- and multi-national action spaces and life circumstances" (24), and a "*contingency* of non-congruent boundary constructions." An expanded perspective results in the insight that "the ability and possibility of crossing boundaries has become a significant resource for social inequality in the globalised world" (25), for instance thanks to (non-) access to state welfare institutions, to child benefits and social benefits, to general security and a better standard of life with freedom from violence. Beck criticises all sociological approaches that take on the premises of international law and affirmatively assign individuals to national societies, without taking account of contemporary social shifts. He himself wishes to take more into account both the consequences of nation-state actions for world-becoming and those processes "that penetrate the boundaries of nation states" (26) and expose their inhabitants to "transnational currents, powers, and forces" and climate change, "the incalculability of transnational terrorism and the unilateralism of the world's greatest military power." Social inequalities, he believes, frequently arise as an incidental consequence of those political decisions that have implications across nation-state boundaries:

> Often it is the case that one exports the danger, either spatially—to countries whose elites see it as an opportunity—or temporally: to the future of unborn generations. One spares money by transporting the risk to somewhere where

> the security standards are low and the arm of the law does not reach—particularly the laws of one's own nation. This applies to the export of torture as it does to the export of waste […]. (28)

Here, Beck outlines significant political/economic dividuation processes; those responsible for certain decisions are not the ones who bear the consequences, and the active and passive elements of processes are distributed between different persons, states, regions or even continents: "The distribution of the 'latent incidental consequences' follows the pattern of exploiting marginal, peripheral regions where few rights exist, because in these places civil rights is a foreign term" (28). On a global level, political/economic dividuations of overall processes result from the interplay of social need, danger acceptance, and economic greed for profits and from the fact that active and "passive transnationalisation" (32), two factors in the same process, are distributed to different global regions. For Beck, this does not mean that passive societies are not part of world society: "Rather, the reverse is true: they are the worst affected owing to the scant resource of silence that they can offer: a fateful magnetism prevails between poverty, social vulnerability, corruption, and accumulation of danger". (28) He thus draws the conclusion (which once again undermines the belief in the possibility of leading an individual life) that "the resource and capacity of 'boundary profit,' that is: of crossing nation-state boundaries or instrumentalising them for the accumulation of life opportunities, has become a key variable of social inequality in the globalised world" (31). In the type of the "average migrant," he sees the consummate contemporary embodiment of boundary profit. As "artist of the border," this figure explores an existence form that, in its multiple economic/political/cultural multiple orientation, can by no means be called individual: "In these forms of life that are tested in border-crossing opportunities, *different national-state spaces of social inequality* intersect and interpenetrate" (32). In spite of this observation of penetration, Beck continues to call the boundary artists individuals who find themselves "typically unequally placed in the various frameworks of social inequality," that is, differently potentiated.

Knowledge Dividuations

In its 2005 report "Towards Knowledge Societies" (Mol 2008, p. 5), UNESCO identified the emerging world society with an association of knowledge societies of non-state communicators and worldwide Internet users. Arthur J.P. Mol, on the other hand, prefers the term "information societies" (ibid.), as he sees information as a wider and more transformational concept than knowledge owing to its incorporated connotations of exchangeability and processability. Like Manuel Castells, he emphasises the contemporary change in society, the transition from the old "information economy" in which information had only a facilitating role in economic processes to an "informational economy" or "society." This informational society is distinct from the old information society in that it meshes, very closely, information technologies with social organisation forms, and elevates the generation and transference of information, making it the fundamental resource of the productivity and empowerment strategy. After all, productivity and competitiveness depend upon the ability of the agents to generate information and to process it, but also upon their feedback, criticism and description. In the still more significantly expanded "environmental governance" desired by Mol, the nation-state as social regulator has ultimately receded behind a diversity of independent speakers and assorted networks, which transversally communicate and feed back immense volumes of data in ultra-short times. Mol sees an exceptionally dense and fast-lived knowledge society arising thanks to the spatio-temporal compression of the information flows, in which the decisive socially constitutive role is taken over by information processes and knowledge transfers, but also competition for knowledge participation and interconnectedness and virtual battles for attention.

Wikimedia is named as an example of such a mobile and continually expanding knowledge organisation. The most forward-looking aspect of this international not-for-profit organisation, with its 250 permanent staff, is that, famously, it depends not only upon the unpaid work of experts on a free encyclopaedia or online lexicon, but also upon the authorship of countless people, upon collaborative writing, continuous supplementing and correction of entries, and thus unending revision,

reworking, and optimising of knowledge. In principle, anyone can participate in the producing of entries. With its *c.*30 million articles produced so far and translated into 280 languages, with its provision of communication tools, templates and navigation boxes, Wikimedia exercises condividual knowledge politics on a global scale. We must hope that knowledge will not only be distributed in a continually expanding radius, but will also be taken up, made known, and opened up for discussion, including previously disregarded, little-esteemed or suppressed information. It is not only knowledge that is thus condividuating itself in a new way. Human subjectivations are also changing because they must recognise that they are connected with, embedded in, and co-modelled by non-location-bound, transversal and ever swifter knowledge communications, and thus included in expanded participation relationships. However world society as a whole's perception of itself is also changing, insofar as it must understand itself as a permanently newly constituted formation, dependent upon the contributions of single persons and their relationship to one another.

Admittedly, Mol, like Scott Lash, also emphasises the danger of piecemeal capitalisation of communicated information. In spite of the advantages he can see in the communicated/divided development and discussion of knowledge, in its detaching from state institutions and sub-state interest associations, in the trans-local passive/active participation relationships of an "informational governance," he warns of a renewed economic "centripetalising" of the "spaceless mobility of idea-capital" (49). He indicates the danger of renewed unequal distribution of knowledge owing to its economic valuation by Internet programmes and search machines, but also through technology-occasioned unequal access options, the "global digital divide." He insistently demands barrier-free communication with as many participants as possible, as these must choose not only the type and degree of the risks with which they are prepared to live, but must also shoulder their global task as "environmental governance," necessarily with differing interests and with the capacity for dissent:

> In the field of sustainable development, environment protection and global health, the complexity of the data and the stakes involved exclude any possibility of a single response or a unique viewpoint, particularly where experts

> are uncertain when confronted by a new issue. The need here is to institutionalize, as it were, the fact that any question on a global scale is, initially in any case, too complex to command unanimity, even in the scientific world. (UNESCO Report, cit. ibid., p. 275)

As contemporary knowledge societies depend upon the digital connecting of conventional knowledge institutions along with the participation of continuously rejuvenating, highly diverse interested knowledge suppliers connecting in every region of the world, their transformation takes place as a disputatious negotiation between serious information exchange, communication redundancies, and economic blinkering by attention blockers, making it subject to extremely divergent estimations.

It is ever more frequently praised for producing "collective intelligence," "in which no one knows everything, but everyone knows something, and in which the single person has *ad hoc* access to the knowledge of the others on demand."[6] "Collective intelligence" supposedly results precisely from individual-critical participation, as this operates in a self-reflexive way, is aware of its dependence upon others, and thus "makes available aesthetic integrity, questions of authorship, intentionality, model formation etc."; processual and discursive consensus formation is both the procedure and the goal. As one can see from Wikipedia, the digital archiving communication processes have the advantage not only of accessing information in seconds, but also the possibility of navigating between different areas of knowledge, making critical comparisons and enabling mutual questioning, and being able to discuss and optimise these with an unlimited number of communication partners. On this basis, knowledge grows, not only as a positive but as a critical mass. At the same time, however, the digitally processed form dematerialises knowledge handed down in book form, decontextualising it, accelerating it and dehistoricising it, and thus making it once more unrecognisable in terms of its historical innovation value, in its connection to specific discourse environments, in its special participation modes and its epistemic specifics. Thus, digital availability and knowledge increase goes hand in hand with a loss of insight, or the production of an entirely different knowledge. This (knowledge) profits from the possibility of swift presentation of issues, and their quasi-simultaneous comparability and availability for

discussion. Existing under the imperative of actuality, this knowledge frequently orients itself on keywords, theory hypes, communicated urgency, and spectacular themes, and does not offer any duration of time to process and question what there is to be known. Instead, the participation aspect ensures an overview and a feeling of connectedness and being able to converse knowledgeably. On the other hand, the status of single knowledge items and specially formulated theory becomes relativised through the manifold information on offer and the swift consumption of theory bytes, since it can no longer be researched, compiled, and weighed, in its genesis, its historically occasioned concerns, its basic epistemological decision and questioning attitude. Through super-participation, the received data—names, term clusters, and interpolating signals—circulates in the particle-accelerator head of the user, bringing with it affective states ranging between curiosity and hyper-attention, overload, and lasting nervousness. Under certain circumstances, it may make it impossible to formulate the problem for oneself.

Since maximising economic efficiency is imperative in today's cognitive and artistic collaborations, such as in architecture or design firms, it requires participants to be continually prepared to accumulate information and optimise knowledge, to exercise mobile self-regulation and to continually rewrite what has been compiled, and thus to optimise the dividuation process, in terms of time and quality. Gerald Raunig thus defines contemporary creative industries as a state of hovering between freedom, independence and self-governance, with the elevation of "flexibility into a despotic norm," and "the making precarious of work to a rule" (Raunig 2012, p. 28):

> Time can no longer be clearly ordered according to dual parameters such as work and free time, production and reproduction, busyness and working time […] at the same time, the whole of time is split up and hierarchised into many different temporalities that cause all previous forms of time striation to unravel." Deleuze's definition of the control societies as a formation that sells services and sets store by the "transformation of the product" (Deleuze 1992), but also the temp workers themselves, quick output and short-term turnover, adaptation to the market, niche-carving and attention-binding, is realised in an acute form in such a knowledge formation.

In the face of decisions relating to the future that concern everyone, representatives of various social function systems and, additionally, extra-scientific institutions, are today requested to engage in dialogue with each other, causing some to speak of co-evolution of the various branches of rationality. For questioning bio-technology's boundaries in particular, the bringing-together of specialist knowledge and social decisions to produce hybrid knowledge is seen as necessary, as decisions cannot be made by experts alone. It is not only scientists and engineers who are asked to estimate the opportunities and risks of higher technologies; anthropologists, ethicists, people with experience of everyday life, and those especially affected are urged to join the conversation. After all, the forms of rationality must themselves be reflected and incorporated into the decision. In this case, knowledge dividuation appears as an epistemologically critical and ethical necessity, relieving the ethical burden of individual decisionmakers. Single persons feel themselves to be on the one hand empowered and beneficially challenged, but also overwhelmed by the social expectation and the appeal to them to engage with various knowledge dispositives, to join the conversation and to participate in decisions: "*Homo oeconomicus*, *homo juridicus*, and *homo paedagogicus* have been replaced by a hybrid self that will supposedly realise the diverse demands in the mode of controls, simultaneously and in parallel" (Peter 2010, p. 117). The "overproduction of possibilities" (Luhmann 2013, p. 75) opened up by knowledge accumulation and a possible "informational overflow" (Mol 2008, p. 290) offers more alternatives, but brings with it a compulsion to jointly opt for risks and an extended willingness to negotiate, tending to be endless: "When information and knowledge become crucial resources in and areas of environmental governance, how do we deal with a constant questioning and revision of environmental knowledge and information, the related uncertainties […]? What kind of new (science-policy) arrangements, decision-making structures and practices, guiding heuristics and principles … ?" (Mol 2008, p. 290) As the maximum number of participants are supposed to decide on the type and extent of the risks, and on the future—in interactions that are as extensive as possible—it could be said that decision making today receives a heightened dividual character.

In the long term, Lars Meyer sees a "transintentionality" (Meyer 2004, p. 39) growing from these divided intentions, co-ordinated information transfers and feedbacks, which he hopes will one day result in a "global brain" with a self-evaluation process. Authors such as Arne Hintz contradict the assumption of a predominantly economic orientation of contemporary knowledge production, seeing an observable "collective power" (Hintz 2009, p. 24) growing out of the cognitive/affective union of the growing number of frequently translocally operating NGOs, but also from single persons co-ordinating their virtual actions, like the "People's Global Action Network": "Collective, open, and participatory media production, combined with non-profit background, uncovers an understanding of knowledge which differs substantially from the individualistic and property-related model found elsewhere" (32). Here, the knowledge assembled is not merely shared, but, like Wikimedia, condividual, in that it achieves a higher quality through its instituting of "commons" for the public benefit. Hintz understands the communicated/shared assemblings and interpretations of the knowable, like open-access software, as belonging to all active and passive participants. With regard to the increase of such common property, he calls for us "to combine our voices into the aggregate voice of affinity groups of like minded individuals" (271f.). In recent years, "affinity groups" of this type have emerged in large numbers in the political and cultural areas: the Occupy protest movements as well as Internet blogs, Facebook, or fan communities. These voices sounding together, however, are to be understood less as "aggregates" than as a multi-vocal, dividual expression of affect.

McKenzie Wark recognises a specific variant of brain workers in hackers, whom he describes as political and information-technology virtuality acrobats. This is because it lies in their nature "to differ […] even from oneself, over time. […] What the times call for is a collective hack […]. To the hacker, what is represented as being real is al-ways partial […]. To the hacker there is always a surplus of possibility expressed in what is actual, the surplus of the virtual" (Wark 2009). The "hacker class" (080) allegedly cultivates a philosophically ambitious understanding of reality according to which the hack is understood as only a limited actualisation of an endlessly actualisable reality. The main interest is to keep information freely available and not to permit its exclusive use, for which reason

the "hacker class" themselves seek "no unity in identity," but anonymous "multiplicity in difference" (084). Prompted by information-technology interventions, non-specialist Internet users are also significantly disrupting the communication exchange through minimal actions, intervening simultaneously in large numbers. For instance, the actions of "Anonymous," who are (un)recognisable as a condividual group, disabling and crashing selected websites with DDOS attacks. As a "gathering of people on the Internet" (Morozov 2010, p. 20), they protest through "shitstorms" against any form of censorship or any unwelcome dominating behaviour; their declared goal is to raise awareness of the unsecured nature and controllability of data archives, and they see their attacks as "legitimate expression of dissent."

In contradiction to hopes for shared generation and use of knowledge, Bernhard Stiegler (Stiegler 2009) sees public symbol systems tending to collapse in the face of "market-form colonising" of all institutions. He rightly laments the decline of the public programme institutions, public-service TV and radio broadcasters, and the loss of universities' independence as they themselves choose dependency on financing and evaluation criteria. If the educational institutions replace the old programme with short-lived project work, motivation training, and billboard attractions, they push forward subjectivation modes that go hand in hand with external stimulations, strict time regulation, attention dispersal, and momentary concentration. Extending Deleuze's definition of control societies, Stiegler stresses the dangers to subjectivation processes and knowledge production arising from frenetic participation in digital communication: because of the monopoly enjoyed by digital search machines, but also the media's scattering and targeting of "topics of interest," which leads to en masse identical directing of attention and format-compatible forms of expression, communication is becoming less differentiated. In the cultural techniques of reading and writing, single persons required sustained concentration and memory work—inevitably individuated by inner work—but the now ubiquitously available knowledge technologies cause them to practise a continuous connectedness that may promote curiosity and continual reorientation of attention, but also stunts imagination and personal initiative. He sees this human passivising, this "symbolic misery," as having increased since the beginning of the machine

age: "a social situation traversed by these machinic *hypomnenata* which, because of this, because it is *born* of the machinic turn, is *characterized by a loss of aesthetic participation*. This itself is brought about by a process of *loss of individuation*" (Stiegler 2015, p. 23, emphasis in original). He diagnoses this loss of individuality in modernity in both human producers and consumers: just as the producer has lost technical skills, the consumer has lost sensibility; anaesthetised, indifferent, apathetic, both sides of the social co-existence forfeit their individuality. Like Frederic Jameson, he criticises the techno-temporal synchronisation of consciousnesses and the reduction of abilities to the random selection of affections by and responses to sense data and stimulations of all kinds, to a passive mode of registration and reaction (cf. Jameson 1998). In the ever present appeal of technological media, he sees a danger of growing attention deficits, as they promote cognitive and affective oversaturation and thus blunting. The change in diachronic memory formation caused by synchronised perception processes is, he argues, primarily responsible for the long-term decay—or non-initiation—of the psychic individuation process. Retentional dispositions and memory capacity are reduced to immediate recall; for this reason, a synchronised memory of the many, tending to de-differentiation, arises as a new capacity in contemporary communication. Stiegler does admit that the Internet need not per se be used in a blunting manner; it enables affect and cognitive exchange among the many, and also opens up other forms of memory. But because today's modes of information access are "entirely homogenous with those of hypersegmentation, that is, with the logic of markets" (Stiegler 2009, p. 92), he has little faith in this possibility becoming a reality. His verdict: "the psyche itself is eradicated" (Stiegler 2009, p. 87) in capitalised time regulations, turnover and circulation mechanisms.

Dirk Baecker emphasises the supremacy attained by information technology and the computer as "*mainframe*" (Baecker 2007, p. 169) of a communication that has become "at once impenetrable and inescapable." As the computer is no longer controlled merely by input and output, but also by its own memory, its data and programs, it generates new meaning complexes with each connection "that principally and thus irreducibly overtax the understanding of every observer." (169). Baecker criticises the belief that one can evade digital control by alternating project and creative

work, instead of recognising that this control can only be responded to with further controls. Above all, however, he sees this frenzy of project work initiating a significant restructuring of society, bringing together the different rationality systems in its trans-epistemic operation and promoting accelerated knowledge dividuations:

> All function systems of modern society […] are now combined in the most improbable projects, so that, whilst one can still distinguish politics and economy, art and education, science and religion from each other, one must also recognise that, in the social movement, in layperson engagement, in a conspiracy against the art market, in belief in science, one is separated from the other only in the price of the project. (172).

Just as the special structure of the individual rationality system is not guaranteed in project-occasioned linking, and it instead appears mixed with others, the individual human persons who move between projects distribute their capacities, industrialists, and attention among a multiplicity and constantly shift them to new things, thus showing themselves as more strongly dividuated.

Media theorists in particular have expressed scepticism concerning Western societies defining themselves as knowledge societies, insofar as they increasingly criticise the main medium, the Internet, and its usage as Web 2.0, as an undemocratic narrowing of what is possible on the network. They emphasise the participation restrictions organised by search machines and the guiding of those willing to participate by formatting codes that are not transparent to them and can be manipulated. Although users want to see themselves as self-determining communication participants, demanding "freely available data," use Open Source browsers, and discuss net neutrality and copyright, "'walled gardens' like Facebook hem in the world of technological development and create a trend toward personalisation, with news that lies outside of our own horizons never reaching our own personal information ecology." More and more media theorists have joined this chorus of criticism in recent times. They foreground the storage and checking of data, the controlling of knowledge distribution and the modifying of immaterial products, and generally accentuate a growing participation inequality: "Power in the mediascape

is unequally distributed, with too much in the hands of a few multinational media monopolies or oligopolies. […] with respect to the new media, actors become integrated entities, switching between producers, distributors and consumers/audience of news and information" (Mol 2008, p. 232). In particular, Julian Assange's party characterise digital control as so comprehensive and unbroken that no person or process can claim to be non-registered, non-located, and non-reconstructible. They rightly criticise the fact that, to this technological recording and involuntary dividuation of single persons and all digital actions, the structuring of Web 2.0 adds:

> the spread of viral advertising, the use of branding as a form of lifestyle partnership, the practice of cool hunting on social network sites and the blurring of sport, entertainment and art along a common spectrum of cultural spectacle. In general, one can argue that the tactics used by global corporations to promote their 'hard' commodities within increasingly sophisticated 'fluid' symbolic fields could only be possible because the boundaries of public life and the forms of agency have become transnational. (Papstergiadis 2000, p. 165)

In a communication form freed from space and time, participation processes are channelled and monopolised by attention blockers, selection hierarchies, aggressive advertising, and adaptable communication strategies, so that hitherto disregarded, underrepresented or unknowable areas have no chance to enter one's consciousness. Even Manuel Castels, one of the information society's first theorists, argues that this term should be abandoned, on the grounds that the switch of the technological paradigms to micro-electronic-based technologies and "genetic engineering" has brought with it such a fundamental change that the significance of information itself has changed. He sees this decisive break not just in the shifting of technologies away from the computer to "network-diffused technologies" and in the development of nanotechnologies, but in the technologically enabled manipulability of biomass (Castells 2000, p. 10).

One might also criticise world society's description of itself as a knowledge society on the score of the "global digital divide" (Miller 2011,

p. 101): a reminder that financial investments in information technologies and corresponding infrastructures worldwide are very unequal. Whereas in high-tech countries the infrastructure preconditions for full coverage exist, in certain African countries, the percentage of the population with access to Internet communication continues to be small. Mobile phones permit better information participation worldwide than the Internet. Development policy initiatives thus endeavour to promote "the construction of a global knowledge architecture" (Kaiser 2003, p. 43), vehemently criticising the anti-sharing culture of global knowledge and financial transfers and the World Bank for its control of content and modi of transferring knowledge. Internet platforms such as "Global Development Gateway" try to counter this monopoly and promote more egalitarian information exchange by means of sustainable eco-(techno)logical development. The "African Virtual University," "World Links for Development," "Global Distance Learning Network" and the "Global Knowledge Partnership" are initiatives in this direction: they support the micro-political linking of local units with translocal knowledge communities.

In addition to chances for condividuation, the knowledge-based society brings with it new constraints (as has already been mentioned), in that it depends upon permanent willingness for participation and negotiation and allocations of time and attention. Because it expects from single persons the acquisition of technological know-how, of information processing and transferring skills, and, all in all, continuous further shaping of their abilities and high flexibility, they force them into dividuation processes that cannot be ended. Deleuze criticises this aspect of the switch to the numerical as the imposing of continual learning. Being informed requires the practising of an infodividual way of life, permanently connected to the "space of flow," transferring attention swiftly and in leaps, and developing an ability for swift processing. After all, social recognition of single persons today relates to digital connection and giving oneself a cosmopolitan aura; multiplied media use is touted as a growth of individual autonomy (Benkler 2006). The end users (Beck 2007) of mediatised interpretation options, of environmental analyses, health investigations, tourism options, and cultural offerings still see themselves as individuals, when they ought to have recognised themselves as virtuosos of division long since.

Beyond the consumption of fun and information, the knowledge society reveals serious problems of mastering and symbolising knowledge.

For how are we to deal with the daily imparted information of catastrophes, unequal economic distribution, eco-(techno)logical overexploitation or information technology exclusion? Whither the affect of rejection and rebellion, except into condividual letters of protest that profit from the non-processable nature of this imposing of knowledge and are the catalyst for a constantly outraged existence? The digital knowledge society works perfectly to centre attention on spectacular announcements, to direct perception to the recognised and to paralyse curiosity and critical questioning competence by overwhelming.

As Brian Massumi rightly says, digital media today impact on their audience ratings in an affect-forming rather than a cognition-forming way: "Power increasingly functions through the manipulation of the affective dimension instead of through the top-down prescribing of the right or normal behaviour. Thus, power is no longer fundamentally normative […] it is affective. The mass media occupy a very important role in this. The legitimising of political power […] takes place through affect channels. […] And the mass media no longer mediate. Their ability to regulate the affective dimension makes them into direct control mechanisms" (53). Whilst we recognise this control, the affection of our capacities through the information on offer cannot simply be removed or transferred into critical attitudes and alternative power alliances without difficulties. It seems to me that the highest agonies of affection and reflection are reserved for persons with the least urgent need for survival, as a kind of revenge for their access privileges and digital participation frenzy. Beck describes an experience of new alienation and threats arising from others coming closer through communication. However, it would make more sense to speak of the experience of involuntary disempowerment through the daily knowledge of dystopian developments in world society that confront us daily—programming woes for generations to come—which we know no way of withstanding.

Work, Production and Resources Dividuations

Etienne Balibar uses the term "multiform conflictual fabric of society" (Balibar 2005, 158) to sum up the way the supposed dissolving of social classes and the global differentiation of the working class has not destroyed

difference-forming evaluations and economic hierarchies, but only shifted them. He sees this multi-form conflictual fabric of society as proceeding from globalised "conflict ubiquity" and unbounded dispersal of conflict. He even sees the "proletarising" of workers expanding and becoming more acute in the present day, insofar as capital movement divides "human material into work and consumption forces and decides their purchase and sale as commodities, and the (re)production of whole populations. Thus, the contemporary development of capitalism does not end exploitation, but heightens it to 'super-exploitation'" (177). Low-wage work in poorer countries brings "downward harmonization pressures" (Sparke 2013, p. 99): pressure to economically equalise wages and worker protection downward, which in turn results in global shifts in labour distribution. In these global, strategic, labour-distribution teams and "subcontracting line teams" (115), production, distribution and consumption processes are links in a chain, and even high value services are "amended" downward. Even firms who do not move their production abroad participate in global displacement processes—through wage cuts, for instance. Unions and transnational solidarity strategies are comparatively powerless in the face of these transnationally organised product and value creation chains. They cannot prevent pre-capitalist modes of production with no fixed wage taking place at the lowest end of production: with human capital not merely exploited, but unprotected from destruction.

Balibar himself indicates that those forced to participate in today's proletarianising come equally from the previously divided classes of the proletariat and the bourgeoisie, thus stratifying the emerging world society in a new way. Even the traditional qualified professions are exposed to fluctuations and international competition. On the other hand, information capitalism brings with it new phenomena such as the previously mentioned creative industry and a middle-class meritocracy with intellectual capital, which Xiaowei Luo sees as the consummate "agency of change" (Xiaowei Luo 2006). He equates its flexibility with greater autonomy and increased individuality. Castells, on the other hand, emphasises the self-exploitation of these self-creation existences, in a situation of continual competition, perfecting certain of their abilities at the expense of others, and forced to impress the world through unceasing hyper-attentiveness,

affective malleability, and a tireless gift of invention. According to Balibar, the class battle as a heterogeneous strategy permeates the social practices of all agents, annexing, subdividing, and isolating all single persons in equal measure.

Gary Gereffi encapsulates the economic and technical labour organisation of the world-becoming in the cynical phrase: "global sourcing, global pricing, global costing: global village—global pillage" (Gereffi 2001, p. 41). He relates "global sourcing, pricing, costing" not only to raw materials and semi-finished products, but also to every level of the workforce, which, dependent on the labour demand of large multi-national companies, is spatially displaced, paid according to international price fixing and production location, and overexploited. Low-paid work itself migrates, and Beck recognises this as one of the new characteristics of the cosmopolitan modern age. Jobs and the corresponding learning opportunities are exported to low-visibility locations where poor and unemployed people live in large numbers and carry out the required activities for the lowest of wages: in other words, to overpopulated world regions. Such low-wage production, with job security far below the minimum requirements, is guaranteed by slavery of workers (frequently female). It becomes dividual when large companies save money (Michael Faust 2002) by subdividing into design, production, finances, distribution, advertising, repair, and further services arms, and distributing these arms spatially over various countries or even continents. The precondition for this is the possibility of modularising the whole process by taking apart the product and the associated attention strategies into generic and standardised components. The modular model is particularly widespread in the electronics sector, where it leads to new forms of horizontal integration, headed by so-called "contract manufacturers that outsource production by defining product packages in terms of modules" (Sparke 2013, p. 80). Today, cars such as the Ford Escort are assembled in 15 countries on four continents. This division of labour generates product differentiation, short production times, and increased specialisation on the one hand, but long communication paths, restricted overview and consciousness of responsibility for managers, and low identification with the working process and product on the part of the implementers on the other. Undeniably, the spatial and temporal splitting-up of the overall productive and distributive process also subdivides and distributes the abilities, experience and mind-set of the workers and erodes qualities

such as trust, commitment, reliability, workmanship and concern for the workforce. As workers and managers are more frequently replaced and relocated, they cannot form any affective connection with any given area of activity or develop a positive and constructive participation feeling. "Atomising" of product and valuation chains is a commonly used term for this; thus, it appears to me that it would make more sense, owing to the necessary overlapping of the processes and their interdependence, to characterise them as dividuations processes.

Manuel Castells describes the contemporary networked company (Castells 2000), which can grow into a transnational business association, as "internal segmentation of firms" (10): "Large corporations are internally de-centralized as networks. Small and medium businesses are connected in networks. These networks connect among themselves on specific business projects" (11). The type and duration of the individuated network company is decided by the temporal features of the project that is being realised, as these must change level and reconfigure as soon as the project concludes, immediately engaging in new alliances and partnerships relating to new projects and space–time relationships. The network companies, with their exceptionally fragile identities, are temporary dividual configurations. In turn, they promote the migration of the staff and workers involved, which produces transnational short-lived and continuously changing socialites of composite cultures—the consummate dividual social model of the future. This is based on virtual communication bridges between country of origin and immigration destination, and is nourished by the participation of migrants in border-spanning social networks that enable them to lead a composite-cultural life doubled in space and time. This may also require a spatio-temporal division of capacities: concentration upon physical work in one location, psychic anchoring in another. Strangely, Castells continues to describe this psycho-physical flexibilising of single persons imposed by migration conditions in the global "division of labor" as "individualising." However, when one looks more closely, it becomes clear that the adaptation of the workforce and the increasingly specific character of its single contribution to the whole product of which he speaks has only a conditional human individualisation in view: "Value in the production process depends essentially on the position occupied by each specific labour or

each specific firm in the value chain. The rule is individualization of the relationship between capital and labour" (18). The individualisation taking place between workforce and capital no longer has anything to do with personal indivisibility; instead, it means the precise fitting-in of an employee service into the capitalist utilisation process. These migrant existences show themselves to be dividual in a number of respects: zero or limited identification with the place where they reside, transference of desires, imagination, and money to place of origin, and, culturally, living at a distance or in a diaspora community in the immigration destination. As a symbolic value, migrants are not to be underestimated; they modify the cultural, political and economic situation in the country of origin and the country of immigration alike and contribute to ongoing cultural dividuations in the latter location if not the former. In the process, they must continually and painstakingly balance their own psycho-physical coherence, as they are frequently non-qualified in their work, addressed impersonally in their workplace, rewarded with the lowest of wages, discriminated against in their new context owing to the origin or gender and, in addition to the separation from the psychological reference values, are forced into cultural disorientation and identity fragmentation, so that it appears inappropriate to describe them as individuals.

In transnational labour migration, Castells justifiably sees a hitherto inconceivable "transnational revolution" (Castells 1993, p. 7) affecting all societies today, displacing and diversifying them and eroding the old distinction between nations who export and nations who receive migrants. Additionally, migration is not only quantitatively increasing, but also differentiating into labour and refugee migration, which interact and extend each other: "Typically, migratory chains which start with one type of movement often continue with other forms, despite (or often just because of) government efforts to stop or control the movement" (12). There are currently an estimated 740 million internal migrants in the world. In 2000, 175 million people are believed to have been active in nations other than their nation of origin. Because mass migration inevitably brings with it shifts in all cultures' social, economic and symbolic structures, John Urry, in *Sociology beyond Societies*, states that we should consider the dissocialised and disorganised processes of "the social as mobility" instead of looking at "the social as society [community]" (Urry trans.

M.O., 2001). For this reason, he focuses on migrants and fleeing masses of people, both their desires and living conditions and the objects they bring with them.[7] His sociology focuses on "horizontal movement streams […] and contingent order emergence" (18), and he claims to incorporate into his thinking the geographical co-ordinates of the region, the city and the location relative to the social categories of gender, ethnicity, class. For his part, he emphasises the impossibility of speaking of individuals with regard to the wandering masses. Certainly the self-displaced single persons do perforce produce new forms of "agency" and unconventional object relationships: "but they only do so in circumstances which are not of their own making; and it is those circumstances—the enduring and increasingly intimate relations of subjects *and* objects—that are of paramount significance" (Urry 2000, p. 194).

The fact that the commoditised value creation process at the global level has now long since forfeited the individuality of a firm's signature style, brand and quality seal—whilst the object itself has forfeited its company affiliation and unique character owing to product piracy and brands have become detached from companies and wares—indicates dividuations taking place on the production and distribution level, also. Regarding this, Gereffi speaks of a kaleidoscopic fragmentation process: "Economic globalisation is a kaleidoscopic fragmentation of many production processes and their geographic relocation on a global scale in ways that slice through national boundaries. […] Instead of a pyramid, where power is concentrated in the headquarters of transnational firms […], global production networks today are a web of independent yet interconnected enterprises" (Gereffi et al. 1994, p. 31). Product orientation has been replaced by buyer orientation and modelling via the Internet, supported by branding strategies, "which can be created without proprietary links to specific manufacturers or distribution channels" (33).

It is well known that the possibility of ever more exact division of the value creation chains and the division and scattering of financial investments also liberate capital from temporal constraints and permit the possibility of flexible, short-term, but above all worldwide-distributed investment. During the financial crisis, the US company BlackRock purchased Barclays, the British bank, for $13.5 billion, thus increasing its

investment capital to more than a trillion dollars and making BlackRock the largest investment management corporation in the world. Through so-called iShares—funds that make up an index like the Dax—the firm has become a shareholder in large German concerns such as Allianz, Siemens, and BASF (http://de.wikipedia.org/wiki/BlackRock). In general, more and more commercial enterprises are owned by shareholders of various sizes, by banks and insurers and by individual participants alike; owing to the negotiable proportional variability of the shares, they are now simply securitised "in *one* global certificate" (http://de.wikipedia.org/wiki/Aktiengesellschaft)—deposited with an anonymous stockbroker such as Clearstream—and vary in value daily depending on share prices, representing participation societies scattered worldwide. However, comparatively small bottom-up financial participations such as "crowdfundings" are temporary dividual constructs, with money contributed by a large number of different capital providers and Internet users with different financial means, frequently committed to an idea and interested in the project (http://de.wikipedia.org/wiki/Crowdfunding). Their financial participation may take place in a number of ways: donations of money, financial loans, profit-sharing, or so-called "equity-based crowdfunding," based on the idea of equal financial participation.

According to Toni Negri, one striking characteristic of globalised working relationships is the feminising of work, with the distinction between productive and reproductive work becoming blurred and capitalist production expanding to the producing of "social relationships and lifeforms" (Negri and Hardt 2009, p. 147). This "becoming-biopolitical of work" (148), with the production of material goods declining in favour of quasi-immaterial assets, affective and cognitive services, happens more markedly in private spaces and service centres, which allow a new degree of precariousness. The distinguishability of working and non-working time dissolves along with that of biotechnologies and socio-technologies. Today, sex workers can make use of digital communication to communicate and remunerate their affective/physical capacities over indeterminate distances:

> Developments of information technologies have profoundly accelerated the separation of sex from natural reproduction. Human sex has now entered a cyberspace of information where everyday bodily contacts and

> sexual encounters have given way to long distance rendezvous. The emergence of cybersex defines a new prosthetic extension of human sex, the prolongation of sexual pleasures outside the limits of the body. (Parisi 2004, p. 1)

Manuel Castells, who likewise emphasises the "mass incorporation of women to paid labour, under conditions of structural discrimination" (Castells 2000, p. 20), identifies the efforts of women migrant workers to maintain contact via the Internet, for instance with their children living a long way away, as the invention of new "life-sharing forms." These virtual/imaginary/real "life division forms," in which the heart is geographically or culturally active in a different place to the workforce, are primarily generated and maintained via mobile phones and sometimes across cultural, national, and continent boundaries, as they are indispensable for reasons of psychic survival. Castells emphasises the loss of organic space and time experience—and time-experience of any kind—in life and work relationships of this kind, as shift work deviating from biological rhythm—and also the divisions of identity—"desequence" the space–time experience. Confronted with identity crises and participation difficulties, migrants must constantly reframe their self-image and their virtual/imaginary/real location. Stuart Hall describes this forcefully: "Everywhere, cultural identities are emerging which are not fixed, but poised, in transition, between different positions; which draw on different cultural traditions at the same time: and which are the product of those complicated crossovers and cultural mixes which are increasingly common in a globalised world" (Hall, 1992, p. 310). For this reason, he calls for the mapping of a "new geography of identity," in which the dividual modes of existence, their plural identifications and capacity divisions, must be inscribed corresponding to the different cultural evaluations. Because the dislocated single persons, groups, or populations must confront cultural requirements relating to gender, skin colour, age, and social standing that deviate from those of their country of origin, the dividuations demanded of them would have to be analysed, with appropriate political measures to compensate.

Feminists also criticise the fact that Marx himself reproduces the logic of capital by including paid work and production of wares but not female

housework and affective reproduction work in his critique of capitalism. "While capitalist production enhances cooperation in the organization of work, it accumulates differences and divisions within the proletariat through its organization of social reproduction" (Federici n.d., p. 1). Marx, they claim, cements in his theory existing social and gender-based divisions of labour by neglecting reproductive, bodily/affective work, including the social low status imposed upon it, because of his fetishising of machine production. Samir Amin and Gunder Frank go further, criticising Marx's Eurocentrism in giving more weight to the exploitation of the Western industrial proletariat than other forms of oppression, such as the enslaving of non-Western populations.

Since every nation's society—and, still more so, the growing world society—must today be understood as an intercultural/conflictual structure, Rosi Braidotti says that, as well as heeding "differences between cultures," we should not forget the differences "within the same culture" (Braidotti 2001; Haller 2001, p. 100). One should be aware of tactics of de-identification with dominant cultures and identity formations, and recognise them as justified. A specific gender discourse regards the social status and cultural affiliation of migrants from Third World countries in Western countries in terms of "contradictory subject positions": similar to this text's perspective on dividuation, it accentuates the simultaneous experience of subjugation and empowerment, of valuation and devaluation of women in countries of immigration. In this sense, so-called "intersectional analyses" describe the single subjectivation "as a composite of different fields of power-supported and marginalised difference" (Dietze 2008, p. 29). Depending on social context, gender, race, class or age may become targets of various discrimination or exploitation practices and thus produce dividual states: the origin, gender, skin colour or social status of the woman migrant may be evaluated differently and lead to dividuations of the single person that generate feelings of disempowerment and empowerment. Gabriele Dietze makes the significant statement that, rather than trying to record the single subjectivation through the "addition" (33) of gender, race, class/locality and sexual orientation, intersectional analysis understands the categories as "interdependent" or 'articulated categories'" (33)—or not. It explores the specific subjectivation in terms of whether race in the given context is perceived as a distinc-

tion or discrimination factor and, if so, according to what criteria, and how it is evaluated and seen in juxtaposition with sexuality, age and social status. In this qualitative sense, the sectional weightings are not reckoned and added up, but analysed in terms of their passive/active nature and tested with regard to extendibility; an outline of the overall structure composed of different participations and divisions, also with regard to political demands, is then produced.

What Achille Mbembe defines as an aesthetic/political characteristic of contemporary "Afropolitanism" could also be recognised and appreciated as the epistemologically founded sensibility of a self-reflexive contemporary globalpolitanism:

> Knowledge of the joining of the here with the elsewhere, the knowledge of the presence of the elsewhere in here—and vice versa—this relativising of the original roots and affiliations, this way of intentionally accepting foreignness, the foreignness, and the far-distant, this ability to recognise his own face in that of the stranger, to respect the traces of distant lands in one's immediate surroundings, to make the unfamiliar one's own, and to work with an element that commonly appears as the opposite—what is meant by "Afropolitanism" is a cultural, historical, and aesthetic sensitivity. (Mbembe 2007)

Following on from this, the epistemological paradigm that has been chosen here understands itself as a political theory action for condividuation politics. In order to allow approaches of this type to become visible and to shore them up epistemologically, frameworks, perspectives and time parameters are to be chosen that bring to light composite-cultural anchorings, the joinings of one's own and the foreign in the single agent and in greater structures. The object is to give value to these multidirectional affections and locations, which, in the best case, lead to case-specific condividual group formations, as a general contemporary mode of existence, and recognise the transversal and possibly awkward (verging on incompatible identity) formation. In the face of the addressing through market strategy and "individualising" of the single person, their evaluation as a cheap labour force or creative worker on the one hand, and in the face of the control-technique appropriation and statistical levelling of

the single person and that person's communicative potency on the other, it is essential to bring the growing need for condividual associations and minimal counter-actions into the centre of attention.

Condividual, minimal-action associations in this spirit can be seen in the Occupy movements in various locations, which agitate for a valid to Aryan distribution of wealth and unrestricted participation opportunities for all. Gerald Raunig calls them a "molecular revolution" with a "primacy of multiplicity" (Raunig 2012, p. 113). Interestingly, he believes he can see novel links among the participants in the Occupy movement between continuity and discontinuity, between re-adoption and new invention: "They constantly cross the dichotomous separations […] what counts is the affection in the interstitial space of these unlike pairs. […] In an otherwise boundless everyday, they spread small new durations of the everyday" (116f.). Its condividuations, or, as Raunig says, its "condivisions," consist in shared claiming of space, re-appropriations, serious repurposings and defunctionalisings of time. Transintentionally, it articulates, through occupation of places and psychophysical persistence, a rebellion against being ignored and excluded from the conversation, against economic inequality, against corruption and misuse of office. In assembly and negotiation, it is in any case necessary "to withstand the diversity, to affirm it and thus to constantly differentiate it further […]" (118). Raunig impressively describes how the dividual is articulated in the "human microphone," in the repetition of the speaker's every single sentence by a chorus, with no prior coordination: "It is not a microphone, because it does not depend upon electrical voltages and the maximally precise reproduction of an original source […]. Rather, it promotes diversity, the multiplying of voices, and also produces incidental sounds. Thus, it is concerned […] with a continued unfolding of expression" (124). Isabell Lorey uses a declaration published on 29.9.2011 and the related discussion to show that those who assembled for the New York Occupy Wall Street movement were aware of their dividuatedness and proactively exhibited it:

> The version that was discussed began as follows: "As one people, formerly divided by the color of our skin, gender, sexual orientation, religion, or lack thereof …". A number of people of colour who found themselves together

> as a group for the first time in that moment, protested against the beginning of this formulation […] and demanded a reformulation: the "formerly divided" version was claimed to be unrealistic and to obscure the history of oppression of the marginalised, and thus ought to be replaced with "despite the divisions of …." (Lorey 2012, 38f.)

As Lorey makes clear, the unity of those assembled and the "human race" was negotiated as a necessarily dividual value: "The change expresses that, in the general assemblies and thus within the movement, very many differently positioned people have come together, *although* hierarchising separations between the genders, sexualities, 'races' and religions continue to exist" (39). Lorey emphasises that, above and beyond the formal recognition of multiplicity, it must be continually produced, recognised, and withstood in social praxis: "Horizontal relationships, consensus and inclusion [are] not a program, not demands of the movement upon itself, but can only take place when they are sustainedly practiced anew." As the constitutive factor of such a condividuation (44), she identifies "an expanding new economy of affects" (45): sympathy and attention, mutual support, shared rebellion, shared will to affect change, and still other qualities.

Notes

1. This diagnosis is presented by Gilles Deleuze at the beginning of his text "Cinema II: The Time-Image." He views this collapse very much as an epistemological gain, in that it sets in train paradoxical self-foundings and aesthetic difference processes that diversify the relationship to reality.
2. Ibid., "La desincorporalisation des corps ressemble à un 'lâchage' de corps individuels dans un espace vital-fonctionnel de non-relation" (439).
3. Bettina Heintz emphasises that Luhmann has *two* concepts of world society: "On the level of the theory of social systems, world-society describes the unity of the totality of the social, on the level of social/commonality theory, world-society is one specific system typus among others" [trans. A.K.]; c.f. Bettina Heintz, "Soziale und funktionale Differenzierung. Überlegungen zu einer Interaktionstheorie der Weltgesellschaft", in: *Soziale Systeme, Zeitschrift für soziologische Theorie*, Vol. 13, No. 1+2, 2007), pp. 343–356 (343).

4. "Thus, Keith Sawyer (2005), and, connecting with him, Gert Albert (2005; and, more recently, Schluchter 2007) defend an individualism that asserts that whilst social qualities must be realised in those that are individual, individual qualities, at the same time, cannot be completely reduced" (22) [trans. A.K.]; see Jens Greve, "Zur Reduzibilität und Irreduzibilität des Sozialen," in: *Soziale Systeme, Zeitschrift für soziologische Theorie*, Vol. 13, No. 1+2, 2007, pp. 21–31.
5. "Thus, the prescription against the 'postdemocratising' of democracies today is not more of a sense of commonality, but more sense of the heterogeneity of one's own identity and the fragility of one's own foundations, thus, more of a sense of self-alienation", in: Oliver Marchart: *Die politische Differenz*, p. 362f. [trans. A.K.]
6. Tristan Thielmann: contributing to a discussion that also included Nacim Ghanbari, Sebastian Haunss, Beate Ochsner and Isabell Otto, "Was sind Medien kollektiver Intelligenz?", in: *zfm. Zeitschrift für Medienwissenschaft,* 1/2013, pp. 145–155 (150).
7. Arjun Appadurai accentuates, once again, other dividuations in contemporary world-becoming: the "cellular organisations" of terror groups such as Al-Qaida. Analogous to cellular capitalism, they develop as a network not controlled from above; with no central information structure, but capable of replication, they depend upon cellular strategies in which a mission exists to be fulfilled. "In a world that is characterised by global connections and tensions between cellular and vertebral political forms, regions, nations, and cities [produce] multidimensional, multiply disrupted copies of external battles. The tensions between India and Pakistan, for instance, recur on a variety of levels: global, national, regional and communal" (118f.); Arjun Appadurai, *Die Geographie des Zorns*, Frankfurt a.M. 2009.

References

Baecker, Dirk: *Studien zur nächsten Gesellschaft*, Frankfurt a.M., 2007, p. 167.

Balibar, Etienne: "From Class Struggle to Classless Struggle?", in: E. Balibar and I. Wallerstein (eds.), *Race, Nation, Class: Ambiguous Identities*, London, 2005, pp. 153–185.

Beck, Ulrich (ed.): *Generation Global*, Frankfurt a.M., 2007.

Beck, Ulrich: "Risikogesellschaft und die Transnationalisierung sozialer Ungleichheiten", in: Ulrich Beck and Angelika Poferl (eds.), *Grosse Armut,*

grosser Reichtum. Zur Transnationalisierung sozialer Ungleichheit, Berlin, 2010, pp. 19–40.
Beck, Ulrich: *Was ist Globalisierung? Irrtümer des Globalismus – Antworten auf Globalisierung*, Frankfurt a.M., 1997
Benkler, Yochao: *The Wealth of Networks. How Social Production Transforms Markets and Freedom*, London and New Haven, 2006.
Braidotti, Rosi: *Gender, Identity and Multiculturalism in Europe*, Florence, 2001.
Castells, Manuel: *The Age of Migration*, London and New York, 1993.
Castells, Manuel: "Materials for an Exploratory Theory of the Network Society", *The British Journal of Sociology*, Vol. 51, No. 1, January/March 2000, pp. 5–23.
Clam, Jean: *Kontingenz, Paradox, Nur-Vollzug. Grundprobleme einer Theorie der Gesellschaft*, Konstanz, 2004.
Clam, Jean: *Orexis, désir, poursuite. une theorie de la désirance*, Paris: Ganse arts et lettres, 2012.
Clam, Jean: *Was heisst: Sich an Differenz statt an Identität orientieren? Zur De-ontologisierung in Philosophie und Sozialwissenschaft*, Konstanz, 2002.
Deleuze, Gilles: *Postscript on the Societies of Control*, Vol. 59, October 1992, pp. 3–7.
Deleuze, Gilles and Guattari, Félix: *A Thousand Plateaus. Capitalism and Schizophrenia*, Minneapolis and London, Univ. of Minnesota Press, 1987.
Dietze, Gabiele: "Intersektionalität und Hegemonie(selbst)kritik", in: Wolfgang Gippert, Petra Götte and Elke Kleinau (eds.), *Transkulturalität*. Gender- und bildungshistorische Perspektiven, Bielefeld, 2008, pp. 27–44.
Faust, Michael: Ulrich, Voskamp, Volker, Wittke: "Europas Industrie: Die Neue Ost-West-Arbeitsteilung", in: Georgia Augusta, *Wissenschaftsmagazin der Georg-AugustUniversität Göttingen*, 1, 2002, Online Ressource 39136796X GVK-Verbundkatalog.
Federici, Silvia: The Reproduction of Labour-Power in the Global Economy, Marxist Theory and the Unfinished Feminist Revolution, n.d., http://caring-labor.wordpress.com/2010/10/25/silvia-federici-the-reproduction-of labour-power-in-the-global-economy-marxist-theory-and-the-unfinished-feminist-revolution/
Gereffi, Gary: Beyond the Producer-driven/Buyer-driven Dichotomy: The Evolution of Global Value Chains in the Internet Era, in: IDS Bulletin, Norwich, UK, Vol. 32, 3 July 2001, pp. 30–41.
Gereffi, Gary et al. (ed.): *Commodity Chains and Global Capitalism*, Westport and London 1994, p. 31.

Greve, Jens: "Zur Reduzibilität und Irreduzibilität des Sozialen," *Soziale Systeme, Zeitschrift für soziologische Theorie*, Vol. 13, No. 1+2, 2007, pp. 21–31.

Hall, Stuart: "The Question of Cultural Identity", in: D. Held and T. McGrew (eds.), *Modernity and its Futures*, Cambridge: Polity Press, 1992, pp. 274–316.

Haller, Dieter: "Die Vielfalt des Geschlechtlichen: Chancen und Konsequenzen für die Theoriebildung in der 'Anthropology of Gender'", in: Judith Schlehe (ed.), *Interkulturelle Geschlechterforschung*. Identitäten – Imaginationen – Repräsentationen, Frankfurt a.M., 2001, pp. 86–110.

Hansen, Mark B.N.: *Feed-Forward: On the Future of Twenty-First-Century Media*, University of Chicago Press, 2015, p. 12.

Heintz, Bettina: "Soziale und funktionale Differenzierung. Überlegungen zu einer Interaktionstheorie der Weltgesellschaft", *Soziale Systeme, Zeitschrift für soziologische Theorie*, Vol. 13, No. 1+2, 2007, pp. 343–356.

Hintz, Arne: *Civil Society and Global Governance*, Münster, 2009.

Jameson, Frederic: *The Cultural Turn. Selected Writings 1983–1998*, London and New York, 1998, pp. 110–112.

Junge, Torsten: *Gouvernementalität der Wissensgesellschaft*. Politik und Subjektivität unter dem Regime des Wissens, Bielefeld, 2008.

Kaiser, Arkus (ed.): *WeltWissen*, Entwicklungszusammenarbeit in der Weltgesellschaft, Bielefeld, 2003.

Lorey, Isabell: "Demokratie statt Repräsentation. Zur konstituierenden Macht der Besetzungsbewegungen," in: Jens Kastner et al. (ed.), *Occupy*!, Vienna and Berlin, 2012, pp. 7–49.

Luhmann, Niklas: *Soziologische Aufklärung 2*, Wiesbaden, 2005, p. 66. [English version: The Differentiation of Society*, New York: Columbia University Press, 1982]*

Luhmann, Niklas: *The Theory of Society, Vol. 1*, trans. Rhodes Barrett, Stanford University Press, 2012.

Luhmann, Niklas: *The Theory of Society, Vol. 2*, trans. Rhodes Barrett, Stanford University Press, California, 2013.

Luo, Xiaowei: "The Spread of Human Resources Culture: Institutional Individualism and the Rise of Personal Development Training," in: Gili S. Drori et al. (ed.), *Globalization and Organization*, Oxford, 2006.

Mbembe, Achille: "Africa: Joining Here with Elsewhere", from: Njami Simon, Africa Remix, Jacana Media, 2007.

Meyer, Lars: *Theorie und Politik des Eigemtums in der Wissensgesellschaft*, Bremen, 2004.

Miller, Vincent: *Understanding Digital Culture*, Los Angeles and London, 2011.

Mol, Arthur P.J.: *Environmental Reform in the Information Age. The Contours of Informational Governance*, Cambridge, MA, 2008.
Morozov, Evgeni: Recht auf Angriff. Wie zivil ist digitaler Widerstand?, in: SZ, 18./19.12.2010.
Negri, Antonio and Hardt, Michael: *Common Wealth*, Frankfurt a.M. and New York, 2009.
Papstergiadis, Nikos: "Cosmopolitanism Assemblages Art", in: Saloni Mathur (ed.), *The Migrant's Time. Rethinking Art History and Diaspora*, New Haven and London, 2000.
Parisi, Luciana: *Abstract Sex. Philosophy, Biotechnology and The Mutations of Desire*, London and New York, 2004, p. 1.
Peter, Tobias: *Wissen und Kontrolle*, Leipzig, 2010.
Pries, Ludger: Transnationalisierung und soziale Ungleichheit, in: Peter A. Berger and Anja Weiss (eds.), *Transnationalisierung sozialer Ungleichheit*, Wiesbaden, 2008, pp. 41–64.
Raunig, Gerald: "n–1. Die Mannigfaltigkeit machen", in: Jens Kastner, Isabell Lorey, Gerald Raunig and Tom Wiabel (eds.), *Occupy! Die aktuellen Kämpfe um die Besetzung des Politischen*, Vienna and Berlin, 2012, pp. 113–134.
Sennett, Richard: *The Corrosion of Character, The Personal Consequences Of Work In the New Capitalism*, Norton, 1998.
Sparke, Matthew: *Introducing Globalization. Ties, Tensions, and Uneven Integration*, Oxford, 2013, p. 99.
Stiegler, Bernard: *Denken bis an die Grenzen der Maschine*, Berlin, 2009.
Stiegler, Bernard: *Symbolic Misery, Volume 2, The Catastrophe of the Sensible*, Cambridge, UK: Polity Press, 2015.
Urry, John: "Mobile Sociology", *The British Journal of Sociology*, Vol. 51, No. 1, January/March 2000, pp. 185–202.
Urry, John: *Sociology beyond Societies*, p. 2, trans. M.O., London, 2001.
Wark, McKenzie: *A Hacker Manifesto*, Harvard University Press, 2009.

6

Aesthetic and Artistic Dividuation Processes

There are many arguments for dividuation processes existing in the realm of artistic productions and aesthetic practices. In itself, the situation today discussed as "contemporaneity" (Belting 2009, pp. 38–73) in the globalised art scene, which is now far more present-day-oriented, transnational and also more transculturally oriented than it was even 30 years ago, has prompted the emergence of increasingly globally oriented ways of articulation, causing theorists like Nicolas Bourriaud to speak of various "altermodernities." It is striking that curators like Okwui Enwezor see, above all, composite cultural appropriations and formal amalgamations in contemporary art practices, and, on the whole, a decentralising of art events, whilst other commentators report more market-oriented uniformities, the maintaining of Western norms and aesthetic standards, and the alignment of art practices with buyer expectations. For instance, the German art collector Ingvild Goetz observes that trends imported from the West, or adopted Western judgements on taste, also dominate the art markets of China, India and Russia: "Many try to adapt to Western art tastes in order to sell in the West" (Benningsen von et al. 2009, p. 117).

What is certain is that the media communicability of the artistically "in demand," the worldwide circulation of artworks at art Biennials and

M. Ott, *Dividuations*, DOI 10.1007/978-3-319-72014-2_6

their advertising and multiplying by the media mean that no artistic praxis can be understood as fully independent and individual creation, unless the desire is to situate it in a local tradition, or very much outside of the art market. Because "the canvas (of the world) is covered" (Deleuze) and "everything" is available and downloadable at all times and retransmittable, processes of repetition, appropriation, and targeted adapting to a given context can be observed everywhere. For even a composition conceived with difference-production and criticism in mind refers to other forms of expression regarded as appropriate to the time period, and thus is inevitably dividual. And yet the artistic practices differ in their intensity of repetition and transformation, depending upon critical approach: an increasing self-reflexive, artistic dividuation, extending to compositions that enact their conditionality and non-concludability, exists between the simple film remake, serialised image reproductions and polemic rephotographings, subtractive appropriations, and recontextualisings of models (Ott 2010, pp. 178–193).

In this context, particular interest attaches to artistic practices that engage in self-reflexive appropriations and reinterpretations based on the insight that repetition is inevitable, thus acquiring an explicitly dividual character. Art practices of this kind endeavour, through affirmed affiliation and recontextualising, to achieve minimal formation of difference. The reduction of the difference may render it virtually imperceptible. They may dramatise their dividuatedness, using repetition to generate moments of becoming-other—for instance, the virtualising of the real, or hovering somewhere between fiction and documentary, etc. At best, they pose questions about the unconsciously dictated picture of reality that slumbers in the depicted image, and how, in order that we may recognise what is unregarded, it must be relativised, its limited character and visual narrowness exposed. Interestingly, it can be observed that non-Western art practices of the southern hemisphere in particular have outstanding dividuation potential, as they are frequently caught between local cultural traditions and globalised standards and are thus forced into culturally composite invention. It is no accident that hybrid constructions that attract attention through a mix of local-style tradition and borrowings from Western art languages are hyped as genuine products of artistic globalising. They display the contemporary wish to make art in a symptomatic and outstanding way, demonstrating

that art practices striving for global visibility are particularly subject to the law of repetition and dividuations, because on the one hand they wish for placement of their particular statement, whilst at the same time they want the recognition of art organisers and market players who are guided by Western habits of seeing and valuation interests.

Today, artistic creation that touts its uniqueness and individual signature is also undermined by aesthetic and popular practices as pursued by crowds on the Internet. Because texts, images, films and musical compositions are accessible in digital archives, they are extracted, remounted, supplemented, elaborated and rearranged. Unless blocked by copyright issues, videos are uploaded, put into global circulation, reused and reinterpreted. Film series are extended by fans in both written and film form; fans add new episodes and discuss them in blogs, impacting on the "original" sequels and dividuating them *a posteriori*. Facebook and YouTube users are enthused by the way "viral videos, responses to videos, re-enactments of photographs and instructions [produce] a whole field of performative expression in a grey area between the pre-individual, the individual, and the collective, between culture, art, and politics" (Goriunova 2013); are released to this or that fate of greater or smaller difference formation, of becoming visible, vanishing or being subsequently revived.

Today, the reversibility of the completed form applies to all artistic practices that take place within and with digital media and that bring their products into circulation, offering them for participation, and thus exposing them to dividuation. The opportunities for appropriation opened up by them include quasi-simultaneity of production and reception, but also, in some cases, suspension of the causal/linear time sequence itself: the future may take place before the past does. If anything, copies of design objects or designer's drafts are implemented more quickly than the original designs. Copies of artworks circulate on the Internet simultaneously with their models, forcing the latter into an encounter with another "self" and initiating unfathomable dividuation processes. Even seemingly unmistakable real locations—cities with a special local character—now find themselves reproduced on a 1:1 scale. Venice, a Bavarian village or the Eiffel Tower can be found, to-scale, on other continents. Thus, the special character of a location—admittedly long since corrupted by media reproduction—is suspended, moved further into the dividual realm.

Dividuation and Aesthetic Difference

In a kind of counter-movement to ongoing dividuations, the art historian Hans Belting claims to see the contemporary art scene as a counter-trend to artistic modernism and an answer to modernism's universalist claims, whose consequence is now "to propagate the symbolic capital of difference on the market" (Belting 2009). Precisely because the art market demands difference for (capitalisable) difference's sake, it promotes a largely ahistorical, quasi-simultaneous art scene that he believes is not controlled by any binding aesthetic norm: "It does not imply an inherent aesthetic quality which could be identified as such, nor a global concept of what has to be regarded as art" (40). One might ask: Who determines the difference of the different, and its epistemological and aesthetic value? Doesn't recognising difference depend upon implicit norms and familiarity with contemporary art practices? After all, what appears different from one perspective may not do so from another—as the interpretation of contemporary art events teaches us.

Belting would surely agree that art practices and their reception are less bound to Western capital cities and their art institutions today than they were even a few decades ago. Because globalisation establishes altered strategies of making-visible and representing—in a decentralised and multiply located art scene—the claims to universal validity of modern, predominantly Western art appears relativised in favour of recognition of regional and local art scenes:

> The regional and particular are presently undergoing unforeseen revaluation, whereas the universal and international are subject to devaluation. […] What appeared to be international now seems monopolar and unilateral. […] But we are able to recognize that so-called international art, from the USA, for example, is only ethnic art, and that we must duly aspire to a post-ethnic art. This post-ethnic art could be the result of a re-writing program. […] Local becomes as important as global, local becomes coequal with global. (Weibel 2009, 80f.)

Peter Weibel discerns a paradigm shift in favour of reversing modern hierarchies of attention and recognition, one that demotes hitherto dominant art languages to merely ethnic/regional languages, and, conversely,

promotes the articulations of other regions, or raises them to an equal rank. Like Okwui Enwezor, he sees the hybridisations of global standards of expression with local codes as post-ethnic articulations.

Admittedly, Weibel's well-meaning perspective is disputed by many art market experts. In spite of theoretical deconstruction, it can be asserted that the globalised art scene of today is all the more subject to Western aesthetic norms—which have been levelled out, but are still valid—now that they are spread further and cemented by financially powerful collectors, auction houses and curators. The Spanish art expert Joachìm Barriendos even speaks of a "re-Westernization of the global art concept" (Barriendos 2009, p. 98): "Thus even if the new geopolitical revisionism now includes those geographies that modernity had left outside its own geo-aesthetic map, the hierarchical scheme, which has been granted the legitimacy of deciding what is left outside, remains the same" (99). In spite of geopolitical expansion, the "hierarchical schema" still determines the inclusion or exclusion of artworks. Barriendos likewise emphasises that difference is hyped as a geo-aesthetic brand, and co-decides the selection of permitted or even promoted art productions—which is not necessarily equivalent to aesthetic valuation. If an artwork succeeds in combining Western art languages with other traditions of expression and uniting them in a specific composite cultural expression, it is accorded plenty of recognition. When someone like Ai Wei Wei unites US conceptual art attitudes with Chinese craft traditions, then such a culturally composite dividuation is a guaranteed success on the art market. However, it is not just non-Western artists who must bow to art market expectations in terms of size, spectacular properties, or provocative potential; as is emphasised by Ingvild Goetz, Western artists too are expected by their gallerists to produce attention-commanding commissioned artworks, possibly thereby losing their special expressive power. Artistic dividuations are thus precisely the result of claims to aesthetic difference, against the background of a continuing Western norm.

In this spirit, large-scale exhibitions such as "documenta" or the Venice Art Biennale make a particular effort to place older and younger, Western and non-Western artworks in a simultaneous space of resonance and validity: at the 2011 Venice Art Biennale, Tintoretto's paintings were exhibited alongside contemporary artworks, and at documenta 13,

millennia-old Bactrian sculptures were combined with twentieth-century artworks. If one places artworks from different cultural contexts side-by-side under the heading "Migration of Form" without listing their origin, as was tried at documenta 12, form-relationships and transcultural variations on the same theme become noticeable. This was an effort to counteract automatic cultural attributions and evaluations and to prevent form difference being judged according to the cultural context. A kind of dividual counter-strategy was developed in which the individual artwork gained a new substance from the form-comparison—unaffected by its cultural classification. Today, curators collect based on the insight that it is hard to culturally classify globally circulated artworks, and may well curate with the intention of compiling non-congruent articulations from different contexts, also indicating artworks' aesthetic parity difference simultaneously.

In this respect, it is instructive that a large number of art events, such as the Sharjah Biennial,[1] the Fespaco film festival in Burkina Faso or the International Film Festival in Dubai, are dedicated to the presentation of "regional"—Black African and Arabic, respectively—art and contrasting it with productions from other cultures and continents, leading to productive interactions, plus the making-visible of "regional" art and, simultaneously, its inevitable conflictual relationship with Western aesthetic formats. Thomas Fillitz emphasises the significance of the biennial, particularly with regard to the perception of African art: "We may consider them as spaces, which allow for greater reciprocity between different art worlds: They are potentially more inclusive in their representation, and each biennial may adopt particular forms of classification for diverse, globally produced contemporary art" (Fillitz 2009). This became particularity true for documenta 14, which tried to include and to juxtapose artworks of the whole world, with the problematic result that it become overloaded, far beyond any possibility of sufficient reception.

Okwui Enwezor likewise sees the African art biennial and film festival as an opportunity for local artists and art traditions to gain visibility within Africa and beyond whilst gaining an understanding of inter-African arts traditions and finding global recognition. On the other hand, he emphasises the dangers of being, once again, restricted to African-ness and reified in particularity because of the art market's hunger for difference (Enwezor

2009). Because being classified as an artist from Africa still frequently represents a hindrance to inclusion in a Western art exhibition or consigns one to the ethnographical museum, the artists of today are more anxious to avoid being identified with their culture of origin. They allege that even the postcolonial discourse of difference tends to deprive their art of the status of world art by restricting it to otherness and stigmatising it as "other." Thus, African artists today try to play with identity patterns and to affirm their position somewhere between necessary adaptation and productions of difference: "Artists are redefining their ethnicity as a personal role and as a migration experience that leads to multiple identities […]. It is a post-ethnic position to perform as an artist from Africa rather than to suffer the label of an 'African artist'" (Belting 2009.) Today, ethnicity is understood as a role rather than a fate, and is combined with issues of gender and class. Artists from the southern hemisphere try, as far as possible, to operate as virtuosos of dividuation who place themselves in relation to Western art languages, using them, parodying them, or combining them with other languages in order to produce more strongly dividual artworks that are, as far as possible, not culturally classifiable.

Aesthetic dividuation thus emerges as an artistically necessary strategy, and as the only process appropriate to our era for all those who live between cultures and seek to join them together in their symbolic statements. Okwui Enwezor accentuates the diversity of the African cultural composite as "a series of shifting grounds composed of fragments, of composite identities, and micro-narratives" (Enwezor 2009, p. 11). He emphasises the major circulations in which it is encompassed within its own continent, and, still more, on a global stage. Together with V.Y. Mudimbe, he once again seeks to contain their specialised tension in the concept of "reprendre" (15), which refers to the simultaneous appropriation of African and Western traditions, the referencing of postcolonial social context, and the formal amalgam of each; thus, it refers to potentiated dividual processes. Questions of race, of ethnicity, of religion, of language and political institutions, of civil society, and of educational system have influenced these various dividuation practices: they have subdivided themselves further in accordance with their interaction with other cultures, with the ideas and forms transference set into motion, the aesthetic/political possibilities for reuse, the degree of acculturation and deculturation. "Consequently what

emerges as contemporary is an art of the supplement and citation, set between different archives, between and among traditions, set in its own invented traditions: colonial and postcolonial, local and global, regional and transnational, diasporic and cosmopolitan spaces" (26).

Since, in a globalised art field, unambiguous reception directions can no longer be given, it is likewise no longer sensible to see contemporary art practices primarily as appropriation and recoding of Western art languages. Instead, the knowledge of multi-directional participation makes caution in decoding the artworks appear wise. Who could venture to say whether an abstract Indian painting is a continuation of US expressionism or a reference to Japanese abstract traditions, or whether it represents other codes? Whether it draws on the Internet, on Indian or Asiatic techniques within its environment, or on all of these at the same time? Reversing the direction of the gaze, certain common Western forms of expression can be recognised as borrowings from colonialised cultures—the role of African sculptures in revitalising modern painting and film is well known. Today, formal dividuations are too multifarious to be clearly traced back to styles or to artists' distinctive handwriting. With this in mind, the Indian artist Jitish Kallat emphasises his aesthetic/cultural delocalisation, presenting himself as a dividuation virtuoso:

> In an age in which all stocks of knowledge and experience are being zealously intercrossed, culture produces stimulating hybrid forms. It is difficult to distinguish our virtual experiences from real experiences. […] My work could only be unique in that it does not strive rigidly for uniqueness. […] Many artists appear in the secret list of sources for my work. (Benningsen von et al. 2009, trans. A.K, p. 39)
>
> Non-unique, but special in its specific way of combining what is appropriated—what better definition of contemporary dividuation processes that benefit artistic difference formation could one imagine?

Exhibition Dividuations

Exhibition events are also increasingly characterised by dividuation processes, if only because biennials and art fairs have multiplied to the point where their scheduling programmes and the organisation of their exhibitions

may unintentionally resemble one another, and they are compelled to be aware of one another in the art they select and in their marketing policy. It is those exhibitions not primarily concerned with the individuality of their curators, artists or artworks—instead opening up a field of artistic articulations whose interactions produce aesthetic added value—that appear appropriate to contemporary composite cultural interpenetration relationships, and thus epistemologically relevant. In the best cases, the reflections and resonances visible and audible between works fuse into a special expression of affect and concept, ensuring insights into aesthetic participation processes beyond the specific exhibition. They place the artworks of one exhibition in a relationship of responding to the same artworks in another exhibition—or to further exhibitions—which in turn impacts on the artworks and on the art scene worldwide.

Two exhibitions taking place simultaneously in autumn 2011 in Istanbul and Berlin serve as an example of how, given the corresponding perception, aesthetic resonances can open up an insight-rich game of repetition and difference formation transcending the individual exhibition context, and even across cultures. Tension-rich participation processes can be observed between the Istanbul Biennial *Isimsiz (12. Istanbul Bienali)/Untitled (12. Istanbul Biennial)*, curated by Jens Hoffmann and Adriano Pedrosa, Antrepo 3 and 5, 17 September–13 November 2011, and the Berlin exhibition *Seeing is believing*, curated by Susanne Pfeffer, KW Berlin, 11 September–13 November 2011. This is not only because some of the same artworks were displayed, or because these received a different semantic charge depending upon the context. The concepts for the exhibitions were a departure from the design principle of unity, giving repetition of repetition as the starting point for artistic positioning and thus taking the aesthetic dividuation process to an ambitious level of self-reflection.

The concept for the Istanbul Biennial 2011 depended from the beginning upon formal repetition and "dialogue between parts," as the curators explained: "The way we place works, install works, is about making dialogues between pieces, between artists, trying to make connections and references."[2] The task of the selected artworks—some commissioned—was to relate to life artworks by the Cuban/US artist Felix Gonzalez-Torres, synonymous with conceptual and minimalist implementations of

personal and political themes alike, and criticism of art's representational identities. In line with his dictum "Aesthetic choices are politics (Hoffmann and Pedrosa 2011, p. 34), the invited artists were challenged to actualise and reinterpret his conceptual works, which themselves represent abstract references to and revaluations of modernist art; five of his artworks provided the starting point and model for five subsections of the exhibition.

The model for the first work group, which is headed *Untitled (Abstraction)*, was a piece of paper with a graphite-drawn grid, like an enlarged piece of millimetre paper, with a diagonal line running from top left to bottom right. Rosalind Krauss sees it as the perfect emblem of abstract art, a minimalist condensation of all abstract painting, because it "announces modern art's will to silence, its hostility to literature, to narrative, to discourse" (Hoffmann et al. 2011). In 1994, Gonzalez-Torres reinterpreted this minimalist abstraction in a title extension, inscribing an urgent problem into it: in *Untitled* (*Bloodwork—Steady Decline*), he indicated the finiteness of the individual life and the declining health of a person infected with HIV. Thus, the emblem of modern art is actualised in life history, imbued with narrative, a graphical sign for life and death. This example of artistic repurposing of abstract articulation, in its turn, prompted the curators to elevate the repetition and difference formation inscribed into it, making it the model on which the invited artists orient themselves.

The exhibited artworks inevitably enter into a participation relationship, with each other as well as with Gonzalez-Torres's artwork. Strikingly, this reveals a shared discomfort with the abstract art model: Mona Hatoum, for instance, criticises the lifelessly abstract character of the formal model in *Untitled: Hair grid with knots* (2003), weaving a 10-cm mesh of hairs into a piece of paper and, as it were, causes her head (in its material nature also) to appear criss-crossed by this grid. In a similar manner, a photograph by Lygia Papes—*Divisor* (1968), taken in Rio de Janeiro—documents a vast cloth sculpture whose geometrical white fabric strip is "bored through" at countless openings by heads of children in the style of baroque *putti*, disrupting its severity. Anette Kelm's 2006 photograph *Untitled* (*White Target*), which shows the reverse side of a white shooting target against a white background (referencing a major Jasper Johns motif), has minimal traces of colour hinting at possible violence.

Pedro Cabrita Reis's small grey-and-blue sculpture *Scandinavian* (2001), on the other hand, is revealed as a paper bag hung upside down, displaying two coloured squares one atop the other in the manner of US Expressionism and, as the writing on its side reveals, intended as a sick-bag on the SAS airline. Finally, a wall hanging-like, monochrome beige-coloured gridwork by Joana Hadjithomas and Khalil Joreige (Beirut) entitled *180 Seconds of Lasting Images*, (2006) also on show in the Berlin exhibition, reveals itself as a no-longer-decodable document of exposed, interwoven film strips from 4500 image frames: the 180 seconds that are all that is preserved of the otherwise disintegrated film material are also read as traces of the filmmaker's mysterious disappearance; he was abducted during the Lebanon war and has never been seen since. As the dividuation of the model by this small group of artworks made plain, Gonzalez-Torres's abstract evocation of a private/political suffering as formal self-violation of art was received as a rigid code and criticised as an aesthetic prolongation of the evoked suffering. By deforming and staining the appropriated form through the addition of traces of living, the various actualisations, they make one feel that the formal severity depends upon the suppression of what cannot be formalised, and that abstract modernism wrongs the bodily, the sensual, and its transience—precisely those things Gonzalez-Torres wished to highlight.

The headings *Untitled (Ross)* and *Untitled (History)*[3] (Hoffmann and Pedrosa 2011, p. 298) provided an encounter of further appropriation and allusion processes, exhibited in Berlin to problematise the equivalence of *Seeing is believing*: artworks included a photo series selected by Akram Zaatari from a Beirut photo archive and collated for Istanbul under the title *Lives in Beirut*. It tells of how, in 1960s and 1970s Beirut, heterosexual and same-sex couples let themselves be photographed in poses ranging from candid to intimate (or were composed in this way), making them, in Zaatari's understanding, a paradigm of emotions and sensuality for that era. These photos of emotionally linked couples alluded to Gonzales-Torres's artwork *Ross*, dedicated by him to his life companion who died of AIDS in 1991. *Ross* is the name of a candle ensemble: a collection of small candles wrapped in variously coloured cellophane whose ideal total weight is supposed to be 175 pounds or approximately 80 kilos (Ross's living weight).

On the basis of material taken from the same photo archive, Zaatari's Berlin installation entitled *Twenty-Eight Nights and a Poem* (2010) shows itself as a clearly distanced documentation of a historic/aesthetic dispositive, thus also pointing to different possible uses of archives. A small Super-8 film showing images of the Lebanese from recent decades is presented together with cameras and projectors, as iconographic research. Framed by the "Seeing is believing" theme, Zaatari wishes his work to be understood as an ethnographical contribution to the reappraisal and preservation of Arabic iconography, enquiring into its power as a statement and value as documentation. In the Berlin artworks, his installation maintains a refraction relationship with the adjacently hung "tapestry" mosaic *180 Seconds of Lasting Images* by Joana Hadjithomas and Khalil Joreige; together, they opened up the first storey space and, together with additional Lebanese artworks—a sculpture by Walid Sadek entitled *On the labor of missing* (2011) and the video film *Everyday Madonna* by Nadim Asfar—develop aesthetic interactions that go beyond the "Seeing-is-believing" theme. In contrast to the Albanian video film *Electric Blue* by Adrian Paci (also included in the exhibition), which presented spectacular pornographic and war images, the Lebanese artworks are characterised by reticence, silence, a more contemplative atmosphere and an air of hesitant forensic investigation. Their special aesthetic dividuation work consists of evoking the recurring war situation in Lebanon in different ways, without reproducing it. In this sense, Nadim Asfar's video film is devoted to "the representation of the nonrepresentative" (Pfeffer 2011, p. 18); long shots of a slightly moving curtain and only hesitant glances out of the window make it like a meditation from the interior of a protective space, set to Madonna songs; the intimate statements, "visualised during and after the bombardment of south Lebanon by the Israeli army in 2006," pick up on the no-longer-decodable aspect of the blind film mosaic *180 Seconds*. Together, the artworks spoke of the visual recall ability of certain traumatising events, united in an expression of endangerment.

The photographic work *Watchtowers* (2008) by the Palestine-born artist Taysir Batniji, also displayed in Istanbul, represents an especially instructive dividuation work that presented the way in which the appropriation of known iconographic patterns can very much draw attention to politically significant, context-dependent differences. The serial

arrangement (three rows of four photos) of the 12 black-and-white photographs of typologically related objects in environments empty of people, photographed against a neutral background in format-filling style and from an analogue standpoint, are reminiscent of the photographic series by Bernd and Hilla Becher. Taysir Batniji also follows their photographing technique affirmatively, explicitly practising this participation process in order to draw attention to significant cultural differences within the similarity, and to politically necessary refunctionings of the form. To start with, admittedly, the repetition of the iconographic pattern and its objective aesthetic veils what is actually shown: not water towers, but watchtowers; not industrial architecture, but war architecture. These are Israeli military control posts in the West Bank. Because the Gaza-born artist, who lives in Paris, was refused permission to travel to the West Bank and was unable to photograph the watchtowers himself, he commissioned a Palestinian photographer to perform this task (under high-risk conditions). Thus, a significant aesthetic/political difference opens up within the supposed similarity: the photographs were not taken after a long observation and waiting time, in ideal lighting conditions, with the right weather, from a slightly elevated standpoint and in as identical a frontal perspective as possible, without intervention (as it were) by the photographer. Instead, they had to be taken within seconds from a concealed position, with imperfect framing and under a shifting light, because, as military installations, photography of the Israeli observation towers was forbidden. The photos were not created primarily because of a conscious attraction to a style or a wish to conserve, but out of a wish to trap their controlling gaze and to turn it back upon them. In their appropriation and repurposing of the recognisable process, the photos dividuate themselves into unfathomability: they compel the attention of the viewer, but also reveal the deception. A closer look shows that the photos by no means imply a distanced and neutral viewer attitude, but instead speak of the dangerous production of the images and the endangerment of their producers, thus documenting the danger of the political situation. They also revalue the time-economy of what they appropriate: whilst the Becher photos relate to a past they seek to rescue through photographs, what we see here is the fixing of something current whose removal is desired, which must however be perceived because of the threat it represents.

Because Taysir Batniji's *Watchtowers* was presented at the Istanbul Biennial with the larger number of 26 photos, but with no explanatory text, and with the inclusion of additional Batniji photographs entitled *Fathers* (2006), the formal difference between the two photo series received more exposure than the aesthetic/political address of *Watchtowers* to certain Western image languages (Hoffmann and Pedrosa 2011, pp. 124–127). Instead, it received a different political charge through its referencing of Gonzalez-Torres's work *Untitled (History)*—a written list of US "great events" of the 1970s such as Watergate or Vietnam on a black background—a corresponding unobtrusive evocation of horrors.

As is shown by these two exhibitions—by the repetitions and difference formations within each, but also those between the exhibitions and extending beyond their context—artworks do not diversify solely through form-imminent dividuations or composite-cultural hybridisations. Rather, they always exist—explicitly so in an exhibition context—within an aesthetic/political resonance field; they fall into aesthetic and conceptual interaction with other artworks, and are also exposed to dividuations in their reception. As has been outlined, the richness of an artwork does not depend solely upon its appropriation and repurposing of past or contemporaneous articulation patterns and transforming them into a particular expression, but also upon its interrelationship with other artworks and exhibition ensembles, and, finally, from its referentiality to the whole field of aesthetic articulations.

Dividual Artworks

Precisely in view of the densely repetitive character of the present day's aesthetic/artistic articulations, it is essential to bring to the fore those artistic practices that handle this outset situation affirmatively and in a self-reflexive way and expose unknown expressive aspects—artworks that approach their inevitable dividuation in a spirit of invention. Their critical repositioning may emerge from the questioning and revirtualising of the aesthetic sign and its context, from the compensatory articulation of historically or currently suppressed voices and perspectives, or from the researching of the subject of nations and unknown dimensions of the

real. Since practices of this kind understand art primarily as the opening-up of an aesthetic field of problems, their articulation frequently operates according to barely perceptible aesthetic indices that seek to elevate these problems, to strengthen them, to transform them, but also to present them in their contingency. In them, they discover possibly forgotten or suppressed statements, which they bring together in unwieldy and dissonant configurations that actually co-exhibit the under-representedness of the statements and the speakers. Artistic practices of this kind exhibit the time-dependent and non-concludable character of articulations, emphasising the insolubility of the problem posed, so that they accumulate a multi-valent, indeterminate, even dissonant affect expression.

One such artwork is the "monodrama" entitled *Lelele* (2010) by Lotta Wennäkoski, which, in the tradition of Noise Music, sets to music extracts from a UN report on the prostitution of women. This monodrama was performed under the direction of Anna-Mari Karvonen in 2011 in the Sophiensälen Berlin as part of Merz-Musik 2011. This dramatic composition composed of high, shrill, and disharmonious tone sequences, presented by three musicians from the *Plus Ensemble* on clarinet, accordion, and cello, is accompanied by a soprano voice whose speech and song includes lists of Slavic women's names. This is followed by some passages giving statistics on trafficking of women and an interview with a Romanian woman, who speaks about being forced into prostitution. This composition of tones and voices not harmonised to each other is accompanied by "coincidence principle"—arranged video images by the Finnish photographer Elina Brotherus, whose very calm images offer a vast contrast to the musical performance, sometimes presenting very rapid sequences of women's faces, but mostly showing peaceful views of relatively empty spaces. A recurring film scene shows a woman moving into a lake and turning around several times, before remaining beneath the surface. The whole ensemble of sounds and images succeeds in opening up a transcultural problem that transcends time, by uniting potentially endless women's names with series of women's faces, one blending into another to create an audiovisual composition that speaks for everyone and for no-one. In the contradictory character of the sign series and their friction with one another, it formulates despair as no-one's affect, acquiring an accentuated dividual character through the interweaving of the different series.

Michaela Melián's aesthetic/political artwork *Memoryloops* from 2010, an audio sculpture available on the Internet and in the city space of Munich, constitutes a structure of diverse sounds and texts related in their concern. Its dividuality initially results from its formal/processual conception, from an ensemble of around 200 voices—that can never be heard as a whole or "exhausted"—that present personal statements and are set to recurring musical motifs. This auditory structure potentiates its dividual conception and (non-)form still more through the fact that it is continued differently in the Internet retrievals and telephonic listenings (non-limited in terms of time), never completely actualised. One can hear different eyewitness accounts from the Munich National Socialism era, from victims and perpetrators, localised relative to the Munich city plan and allocated to authenticated persons or institutions. Even so, this virtual presentation of diverse statements is less about making the single fates of identifiable city inhabitants of the past audible than preparing a politically urgent resonance space that, with the imparted horrors and acts of violence, cannot be received in a final way. In its multitude of voices, its speech goes beyond itself, saying more than can be heard. The different voices and descriptions, connected transversally in recurring musical motifs, outline an aesthetic/political diagram that allows a past domination relationship to be heard in its micrological political effectiveness. Thus, they revirtualise both the present and the past. As certain acts of rape and killing—which may also be symbolic—return in their auditory afterlife, they acquire a significance that has changed since their time of origin and must be rethought. In principle non-concludable, the rearticulation of the Munich Nazi period by a multitude and its hearing by a multitude opens up a dividual and relevant field of problems; one can never finish hearing, feeling, or thinking about them.

Certain contemporary artistic practices go still further by trying to problematise the narrowing of the real to what is within the human capacity for insight. Through an ecologically/philosophically expanded concept of reality and self-reflexive aesthetic process, they initiate research into another reality. In the manner of speculative philosophy, the artist Ursula Biemann aims to illuminate unknown dimensions of the real and evoke their hitherto unseen interwovenness with the human sphere. For instance, she tries to penetrate optically the physical properties of water,

letting the inadequacy of the representation challenge her to create new representation modes. She outlines her project *Egyptian Chemistry*, in which she looks at global water distribution and politics, initially taking Egypt as an example, as follows: "The project researches the ecology of water with all its many connections with natural, social, and technological elements. […] These construction plans are at the same time a visual rendering of how governments see 'nature' and place it at the service of society; they embody certain ecological paradigms" (Biemann 2012, p. 156). For this purpose, she sets up a heterogeneous ensemble of as yet unknown articulations that, in a lengthy audiovisual research process, she listens to and endeavours to elevate into the realm of the visible and audible: as many voices as possible, including non-human voices, complete with their mutual dependency and the resonance space between them. She seeks not just to record the factual watercourses of the Nile, the landscape restructurings and technological hydrographies of Egypt, but also to make the chemical and socio-technological compositions of the water accessible to our senses. She listens to reports from Nile locals and activists, and reconstructs the stories, small and big, attached to the technological conversion nature, the land reforms, artificial fertilisers and other human interventions. She joins with experts to speculate on the ecological consequences of violent intervention, as narrated by mosquitoes and the lives that the restructuring has claimed. The vision of less state organisation and more 'commons' is a further aspect of her video research. "In the widest sense, the project draws on an ensemble of practices that incorporates chemical, biological, metallurgical, and philosophical dimensions, once all included in the original Egyptian term *Al Khemia*, long before the strict division of the disciplines and subdisciplines" (Biemann 2012, p. 156). In this context, the term resource is detached from its predominantly economic/industrial evaluation and expanded by being given a cultural/historical context. *Egyptian Chemistry* is part of the international art and research project *World of Matter*, which maps the geography of resources and aims to provide a non-anthropocentric aesthetic vocabulary for its recording.

Artistic practices of this type criticise and remove the boundaries of human self-conception, presenting technological redesigns of stretches of land and whole nations as a problem, and taking their multifarious implications and

consequence manifestations as their theme. In the most advanced cases, they seek to exhibit as many participants in circulatory systems as possible, so that their artistic articulations express differentiation and at the same time a political/ecological relevance. Thanks to the promotion of dividuations in the artwork, finite and figurative articulations are transformed into aesthetic tangles and intellectual feltings, allowing their origin in configurations greater than the human sphere to emerge.

As this brief overview shows, artworks that deserve their name insert unknown modes of expression into the aesthetically and technologically bounded articulation space, tear holes in the visibility zones, open up borderline areas of the audible, and incorporate non-human speakers. They oscillate between the two sides of the real, and immediately revirtualise their actualised figure by making moments of the not-yet-heard and not-yet-seen perceptible. They incorporate these into an unforeseeable and unheard dividual-becoming, an "all-world-becoming" that can be presented as the sole conceivable goal of every socio-critical revolt, every difference-forming artistic praxis, and every way of thinking that removes boundaries: "For everybody/everything is the molar aggregate, but *becoming everybody/everything* is another affair, one that brings into play the cosmos with its molecular components. Becoming everybody/everything *(tout le monde)* is to world *(faire monde)*, to make a world *(faire un monde)*" (Deleuze and Guattari, trans. Massumi 1987, pp. 279–280).

Notes

1. Kaelen Wilson-Goldie: "The most crucial and enduring contribution this event has made to the region's mechanisms of cultural production comes from the fact that the Biennial commissioned no fewer than 20 art works, in many cases inviting local, regional and international artists to spend time in Sharjah producing new projects," cit. in: Jack Persekian, "A Place to go: The Sharjah Biennial," in: Belting/Buddensieg, *The Global Art World*, pp. 154–163 (159).
2. http://www.nytimes.com/2011/09/15/world/europe/a-simplified-and-secretive-istanbul-biennial.html?pagewanted=all. In the tradition of the Istanbul-Biennale, they state that it is important "to maintain that focus on politics and art informed by politics. […] But we wanted to somehow rescue the concern with aesthetics, formal issues and the visual, the realm of

the visual, which we thought was perhaps a bit left aside, particularly in the recent editions, which seemed to have taken into consideration more of art and politics but with a documentary or with a social or politically activist approach".

3. Akram Zaatari's contribution to "History" consisted of a series of photographed letters from the years 1990–1997 to Awada, a Lebanese 16-year old detained in Israel. The letters were hung side-by-side on the walls, documenting, as medium and as content, the inseparability of the private and political under specific conditions of political injustice.

References

Barriendos, Joaquìn: "Geopolitics of Global Art: The Reinvention of Latin America as a Geoaesthetic Region," in: H. Belting and A. Buddensieg (eds.), *The Global Art World*, Ostfildern, 2009, pp. 98–115 (98).

Belting, Hans: "Contemporary Art as Global Art: A Critical Estimate," in: H. Belting and Buddensieg (eds.), *The Global Art World, Audiences, Markets and Museums*, Ostfildern, 2009.

Benningsen, Silvia von et al. (ed.): *Kunst Global*, Ostfildern, 2009.

Biemann, Ursula: Mission Reports, Künstlerische Praxis im Feld, Nuremberg, 2012.

Deleuze, Gilles and Guattari, Félix: *A Thousand Plateaus. Capitalism and Schizophrenia*, Minneapolis and London: Univ. of Minnesota Press, 1987.

Enwezor, Okwui: "Situating Contemporary African Art: Introduction," in: *Contemporary African Art Since 1980*, Bologna, 2009, p. 10.

Fillitz, Thomas: "Contemporary Art of Africa: Coevalness in the Global World," in: H. Belting and A. Buddensieg (eds.), *The Global Art World*, 2009, pp. 116–134 (124).

Goetz, Ingvild: "Man wird so furchtbar kritisch," in: Süddeutsche Zeitung, 26./27.1.2013.

Goriunova, Olga: "Die Kraft der digitalen Ästhetik," *zfm. Zeitschrift fuer Medienwissenschaft*, 1/2013, pp. 70–87.

Hoffmann, Jens and Pedrosa, Adriano (eds.): Isimsiz/Untitled (12. Istanbul Bienali/12th Istanbul Biennial) 2011, The Companion, Istanbul, 2011.

Ott, Michaela: "Zwischen Virtualität und Kontrolle: Dividuelle Filmästhetiken," in: Hans-Joachim Lenger and Michaela Ott et al. (eds.), *Virtualität und Kontrolle*, Hamburg, 2010, pp. 178–193.

Pfeffer, Susanne (ed.): *Seeing is Believing, Catalogue of Artworks*, Berlin, 2011.

Weibel, Peter: "Global Art: Rewritings, Transformations, and Translations. Thoughts on the Project GAM," in: H. Belting and A. Buddensieg (eds.), *The Global Art World*, 2009, pp. 74–86.
Wilson-Goldie, Kaelen: "A Place to Go: The Sharjah Biennial," in: H. Belting and A. Buddensieg (eds.), *The Global Art World*, n.d., pp. 154–163 (159).

Web Links

http://www.nytimes.com/2011/09/15/world/europe/a-simplified-and-secretive-istanbul-biennial.html?pagewanted=all
http://12b.iksv.org/en/gruplar.asp?id=3&c=2&show=metin

Index[1]

A

Ackerman, Jennifer, 150
Adorno, Theodor W., 101–103
Agamben, Giorgio, 4, 10, 11, 18, 141
Agapow, Paul-Michael, 154, 155, 167
Agent of individualisation, 26
Ai Wei Wei, 233
Althusser, Louis, 87
Amann, Rudolf, 167
Aquinas, Thomas, 48
Arendt, Hannah, 103, 104
Aristotle, 26, 44, 46
Artificially isolated single persons, 24
Asfar, Nadim, 240
Averroes, 48
Avicenna, 48

B

Bacon, Roger, 49
Baecker, Dirk, 110, 197, 198, 209
Balibar, Etienne, 18, 40n6, 54, 72, 73, 79–81, 88, 213–215
Barriendos, Joachìm, 233
Bartleby, 141
Batniji, Taysir, 240, 242
Bayart, J.-F., 20, 40n7
Becher, Hilla, 241
Beck, Ulrich, 19, 20, 112, 114, 185, 187, 195, 198–201, 212, 215
Becoming-dividual, 101
Belting, Hans, 229, 232, 235
Benjamin, Walter, 101
Benkler, Yochao, 212
Benningsen, Silvia von, 229, 236
Bentham, Jeremy, 78

[1]Note: Page number followed by 'n' refers to notes.

M. Ott, *Dividuations*, DOI 10.1007/978-3-319-72014-2

Bergson, Henri, 31
Biemann, Ursula, 244
Bio- and socio(techno)logical ensembles, 140
Boethius, 48
Bolk, Louis, 159, 160
Bölker, Michael, 163
Boltanski, Luc, 15, 40n5
Bonelli, Johannes, 177
Bösel, Bernd, 241
Boulaga, Fabien Eboussi, 113
Bourriaud, Nicolas, 229
Boyle, Christopher, E.B., 169
Boyle, Timothy J.B., 169
Braidotti, Rosi, 174, 176, 221
Brandon, Robert, 156, 157, 167
Brecht, Bertolt, 96
Briggs, Derek E.G., 162
Brotherus, Elina, 243
Buckhardt, Jacob, 24, 25
Butler, Judith, 30

C
Canetti, Elias, 99, 100
Castells, Manuel, 16, 202, 214, 216, 217, 220
Castels, Manuel, 211
Chiapello, Eve, 15, 40n5
Cicero, Marcus Tullius, 46, 47
Clam, Jean, 21, 185, 191, 196
Coalescences, 147
Co-evolution between individuals and society, 186
Composite cultures, 140
Condividuality, 19, 140
Condividuals, 19, 116, 140, 141, 199, 203, 207, 208, 213, 222, 223
Condividuations, 19, 37, 134, 140, 141
Condivisions, 19, 37, 140
Counter-realisation, 13, 33
Critique of the individual, 29
Crowther, Peter R., 162, 206
Cueva, Mateo, 171, 175

D
Darwin, Charles, 89
Davies, Paul, 158
De-dividuation, 34
De-individualisation, 104, 196
De-individualised, 57
De-individuate, 23, 52
De-individuating, 19, 101
De-individuation, 11, 29, 52, 66, 69, 74–76, 171
Deleuze, Gilles, 13, 14, 21, 29, 34, 35, 52, 92, 100, 115, 127, 134, 136–138, 141, 185, 188, 205, 246
Democritus, 44, 50
Desubjectification, 10
De Tocqueville, Alexis, 84
Diamond, Jared, 157
Diels, Hermann, 43
Dietze, Gabiele, 221
Dividual, 8, 15, 29, 32, 34, 35, 37, 38, 52, 59, 72, 73, 75–77, 91, 94, 115, 116, 129, 131, 136–141, 153, 155, 156, 159, 164, 169–171, 175, 185, 193, 195, 198, 206, 207, 215–217, 219–221, 223, 224, 230, 231, 234, 235, 243, 244, 246
Dividual counter-realisation, 31
Dividualism, 139

Dividuum, 75
Divisibility, 36
Durkheim, Emile, 68, 71, 90, 92–95, 107

E
Elias, Norbert, 98
Engels, Frederick, 69, 72
Enwezor, Okwui, 229, 233–235
Epicurus, 44, 47

F
Federici, Silvia, 221
Fichte, J.G., 56, 57
Fillitz, Thomas, 234
Foucault, Michel, 21, 36, 89
Fragmented identities, 30
Freeman, Kathleen, 44
Freud, Sigmund, 13, 29, 32, 33, 95, 132, 134

G
Galen, 44
Galloway, Alexander R., 17
Gehring, Petra, 170, 174
General individual, 27
Generator of de-individualization, 36
Gereffi, Gary, 215, 218
Gerhardt, Volker, 76
Global digital divide, 22
Goetz, Ingvild, 229, 233
Golley, Frank B., 166
Gonzalez-Torres, Felix, 237–239
Gould, Stephen Jay, 149, 160
Graeber, David, 83
Gribbin, John, 158
Guattari, Félix, 21, 35, 100, 188, 246

H
Habermas, Jürgen, 23, 27, 57, 58, 66, 103
Hadjithomas, Joana, 240
Hall, Stuart, 29, 220
Haller, Dieter, 221
Hansen, Mark B.N., 15, 31, 196
Haraway, Donna J., 149
Hardt, Michael, 17, 115
Hatoum, Mona, 238
Hayles, Katherine N., 9, 14, 40n4
Hegel, G.W.F., 25, 27, 56, 61, 66, 67
Heidegger, Martin, 142
Heintz, Bettina, 188
Hennig, Willi, 154
Hintz, Arne, 207
Hobbes, Thomas, 57, 79, 80
Hoffmann, Jens, 237–239, 242
Horkheimer, Max, 101
Husserl, Edmund, 108, 134
Hyper-attention, 9

I
Impersonal, 135, 137
Individual, 46, 132
Individualisation, 9, 19–21, 23, 26–28, 68, 74, 77, 85, 99, 104, 106, 108, 110, 114, 184–186, 216, 217
Individualisation constraints, 139
Individualise, 25

Individuation principle, 50, 61
Individuations, 5, 9, 10, 23, 28, 29, 32, 33, 40n6, 48, 49, 58, 60, 61, 63–66, 68, 70, 74–76, 86, 91, 102–104, 125, 130–133, 136, 142, 149, 152, 172, 177
Individuised population, 151
Infodividual, 212
Institutionalised individualism, 27
Interdependency of persons, 30
Inter-individual, 133
Intimate colonial formation, 21
Intra-individual, 132
Isolated single person, 79

J
Jameson, Frederic, 209
Janich, Peter, 149, 154
Johns, Jasper, 238
Jones, Steve, 158
Joreige, Khalil, 240
Junge, Torsten, 199

K
Kaiser, Arkus, 212
Kalender, Ute, 172
Kallat, Jitish, 236
Kant, Immanuel, 134
Karvonen, Anna-Mari, 243
Kasper, Cornelia, 170
Kauffman, Stuart A., 157
Kelm, Anette, 238
Kierkegaard, Soren, 48
Kim, Jan T., 161, 165
Kirchhoff, Thomas, 165
Kittler, Friedrich, 26
Kracauer, Siegfried, 97, 100

L
Lash, Scott, 203
Latour, Bruno, 7, 29, 127, 147, 169, 195
Le Bons, Gustave, 96
Leibniz, Gottfried Wilhelm, 50–53, 61
Lemke, Thomas, 176
Levit, Georgy S., 166
L'individuation, 142n4
Locke, John, 27, 78, 80, 81
Lorey, Isabell, 223, 224
Lovink, Geert, 16, 210
Lucretius, 44, 47
Luhmann, Niklas, 24, 107, 108, 110, 111, 186–189, 192, 194, 195, 206
Luo, Xiaowei, 214

M
Macpherson, C.B., 78–81, 83
Magnus, Albertus, 48
Malthus, Thomas Robert, 89
Marx, Karl, 27, 69, 71, 73, 75
Mass individuals, 106
Massumi, Brian, 137, 213
Mbembe, Achille, 20, 40n7, 222
McLuhan, Marshall, 12
Meliàn, Michaela, 244
Merleau-Ponty, Maurice, 134, 138
Metastability, 136
Metastable, 140
Meta-stable state, 33
MetroZones, 20
Meyer, Lars, 207
Micro-biome, 146
Miller, Vincent, 20, 211
Mol, Arthur J.P., 202, 203, 206

Morozov, Evgeni, 208
Mudimbe, V.Y., 235
Multi-directional participations, 5

N
Negri, Antonio, 17, 115, 219
Nietzsche, Friedrich, 75, 77
Non-individuality, 27
Non-individuation, 102
Novalis, 59, 60

O
Occam, William of, 49
Ockham, William of, 49
Ott, Michaela, 89, 230

P
Paci, Adrian, 240
Papstergiadis, Nikos, 211
Parisi, Luciana, 220
Parsons, Talcott, 27, 102
Particular, 141
Pedrosa, Adriano, 237–239, 242
Pfeffer, Susanne, 240
Plato, 46
Pöltner, Günther, 178
Possessive individualism, 78, 80
Possessive individuality, 27
Pre-individual, 32, 33, 54, 92, 96, 115, 132, 134, 135, 231
Pre-packaged individuality, 17
Pries, Ludger, 112
Principium individuationis, 26, 48, 58, 62, 69, 76
Principle of relativity, 1
Property in [one's] own person, 73
Proprietor of its own, 27
Putative *anthropologicum*, 28

R
Raunig, Gerald, 19, 37, 139, 140, 205, 223
Reis, Pedro Cabrita, 239
Rifkin, Jeremy, 157
Röd, Wolfgang, 43
Roselló-Mora, Ramón, 167
Rousseau, Jean-Jacques, 57, 79, 86, 88

S
Sadek, Walid, 240
Schelling, F.W.J., 59, 60
Schlegel, Friedrich, 59
Schopenhauer, Arthur, 68
Self-enclosed self-understanding, 26
Seneca, 47
Sennett, Richard, 185
Simmel, Georg, 24, 25, 56, 68
Simondon, Gilbert, 13, 18, 29, 32, 33, 40n6, 92, 133, 138, 149
Smith, Adam, 78, 82
Social norm, 26
Societies of control, 3, 34, 136
Sparke, Matthew, 214, 215
Spinoza, Baruch de, 29, 33
Spinoza, Benedict de, 34, 50, 52, 53, 61, 138
Stiegler, Bernard, 11, 197, 208, 209
Stuart Mill, John, 78, 85, 86
Subjectification, 31
Superspecific groups, 156

T
Tarde, Gabriel, 89–91
Toulabor, C., 40n7
Transdividual, 37, 134
Trans-individual, 29, 30, 33, 40n6, 72, 73, 90, 132–134
Trepl, Ludwig, 165

U
Urry, John, 112

V
Virno, Paolo, 17, 115
von Goethe, J.W., 58
von Humboldt, Wilhelm, 58

W
Walz, Norbert, 163, 164
Wark, McKenzie, 207
Weber, Max, 107
Weibel, Peter, 232
Weidenreich, Franz, 159
Weingarten, Michael, 149, 154
Weiss, Martin G., 176
Welsch, Wolfgang, 127
Wennäkoski, Lotta, 243
Whitehead, Alfred North, 28, 29, 31, 36
Wiesemüller, Bernhard, 153
Wilson, Edward O., 169

Z
Zaatari, Akram, 239, 240