EDUCATIONAL REGIMES OF CREATIVITY: ON INSTRUMENTALITY AND EQUALITY

By

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ABSTRACT

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This dissertation, consisting of five independent studies, explores contemporary educational regimes of creativity. In line with Foucault's theory of governmentality and Rancière's theory of equality, they analyze educational discourses of creativity to demonstrate their inscriptions of possible subjectivities. Chapter 1 critiques the neoliberal regime of creativity as it is made present through a cross-section of artifacts published in English since 1990s that exhibit a concern for creativity in education and frame their debate in relation to state policies in the United Kingdom, the United States, and China. It describes three rival *dispositifs* of neoliberal creativity and argues that the neoliberal regime of creativity performs consensus, aligning different worlds and shutting down alternatives. Chapter 2 tells a story of how educational psychology has invented instrumental creativity. It focuses on how the psychometrics and the cognitive psychology of creativity have made creativity an educational problem. Chapter 3 follows the curriculum of extended TRIZ in Việt Nam, a case in which a scientific post-psychological theory of creativity in engineering is adapted into a general theory of creative problem solving and taught to the general public. The chapter portrays curriculum development as a process in which the person in love forms himself as a teacher, integrating into as well as generating the sensible of creativity and education. Chapter 4 inquires into theoretical possibilities of arts education. It critiques the instrumentalism of discipline-based arts education (DBAE) and suggests a non-instrumental way of theorizing art in which what is specific about art is surprisingly not the artist's act of creation and their well-recognized achievements. Finally,

Chapter 5, examining the field of educational philosophy, attends to education as an act of creation. This chapter engages with Levinas, Foucault, and Rancière's theories of subjectivity and the ways in which forms of subjectification bring something new into the world or grapple with the possibility of the new.

For Ariel and Alrie

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Lynn Paine is one of my great lucks. I remember a lesson in which Lynn, in a gesture to make visible the social constructions of normality, reminded her students that she is American, female, and white. What did I see at that moment? A kind and gentle person. As she always is.

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The desktop, table, and chair in the corner of a small attic bedroom on Lilac Avenue have supported me during my writing this dissertation. Leng Keng the cat looked at me silently when I got impatient with myself and started cleaning the room.

I thank Hà, for being with me through the years.

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KEY TO ABBREVIATIONS

APIIC	Azerbaijan Public Institute of Inventive Creativity
ARIZ	Algorithm of Solving Inventive Problems
ASII	All-Union Society of Inventors and Innovators
CPSI	Creative Problem Solving Institute
CSTC	Center for Scientific and Technical Creativity
DBAE	Discipline-based Arts Education
DCMS	Department of Culture, Media and Sport
DfES	Department of Education and Skills
ESSA	Every Student Succeeds Act
GCI	Global Creativity Index
GEM	Global Entrepreneurship Monitor.
GII	Global Innovation Index
GNRC	Global Neoliberal Regime of Creativity
HaUI	Hanoi University of Industry
HDST	Hanoi Department of Science and Technology
MSU	Michigan State University
NCLB	No Child Left Behind Act
OECD	Organisation for Economic Co-operation and Development
PIIC	Public Institute of Inventive Creativity
PISA	Programme for International Student Assessment
PLIM	Public Laboratory of Inventive Methodology
RAT	Remote Associates Test

QCA	Qualifications and Curriculum Authority
SCAMPER	Substitute, Combine, Adjust, Modify, Put to other uses, Eliminate, Reverse/Rearrange
SET	Symbolic Equivalence Test
SSUA	Soviet State University of Azerbaijan
STEM	Science, Technology, Engineering and Math
TRIZ	the Russian acronym for Theory of Inventive Problem Solving
TTCT	Torrance Tests of Creative Thinking
UK	United Kingdom
US	United States
UOS	University of Science
USSH	University of Social Sciences and Humanities
USSR	Union of Soviet Socialist Republics (Soviet Union)
VFST	Vietnam Foundation for Science and Technology
VNUHCMC	Vietnam National University, Ho Chi Minh City

INTRODUCTION

Sketching the ways in which I engage with educational discourses of creativity, this essay touches upon my personal connections with creativity, introduces the perspectives that guide the writing of this dissertation, and previews the five chapters.

An Autobiography on Creativity

The word creativity has been significant in my life. My first personal encounter with creativity, as far as I can recall, was the moment in which I started thinking I wanted to write something out of my own question. The poem was too silly to show anyone, I thought, but I did make something with a sense of self. I understood creativity as a state in which people want to create something when they come to a relation with themselves, and I did not know how I had acquired or fabricated this meaning of creativity. These moments of creativity did not drive me to dream of becoming a prominent creator whose works are admired by others. I found myself in appreciating others' works. I suffered when perceiving that creativity was attacked, for example, when a singer's novel and moving musical performance was criticized as an incorrect imitation of the original work. Creativity is not only about the disposition to make a tangible product but also about the event of coming into terms with beauty for what is here.

In 1999, to prepare for my future employment, I entered a teacher education program at Vietnam National University Hanoi. One of my questions was how to teach for creativity. At that time, as a buzzword in media, creativity pointed to entrepreneurship. My friends and I took part in 'Creative Business Ideas', a contest for college students organized by the National Magazine of Vietnamese Students. We won the first prize for a proposal to establish an educational enterprise whose function was to discover and boost human creativity. The project was proposed based on the availability of creativity research. My new interest was the science of creativity,

Creatology, as my classmates in Creativity Methodologies would call. Creativity Methodologies, a course open to anyone interested in creative problem solving since 1977 in Hồ Chí Minh City and 1987 in Hà Nội, is also known as the TRIZ course. TRIZ, the Russian acronym for Theory of Inventive Problem Solving, is the main theory of creativity on which the course is built. It is derived from the study of patterns of invention in the global patent literature. I attended the class in summer 2001 and then taught a small section of the curriculum from 2003 to 2004. Later, in my master's degree study at the Katholieke Universiteit Leuven, Belgium, from 2006 to 2007, my selection of courses was biased toward psychology. My final thesis was a review that investigated the diverse conceptualizations and operationalizations of creativity in creative thinking tests. At the same time, the cultural richness that I experienced in this one year in Europe, especially through trips to art museums, renewed my passion for the arts. In 2010, I participated in a workshop on creative drama for development and a workshop on independent filmmaking in Hà Nội. Hà Nội, my home city, has been vibrant with creative movements.

Being a PhD student in the US, I have maintained and grown my interest in creativity. The harvest is this dissertation, a collection of five essays on creativity in education.

Educational Discourses of Creativity from a Foucaultian Perspective

The ubiquity of creativity in my educational experience does not simply come from my individuality. I have been living in spatio-temporal configurations where people speak about creativity and relate it to education. The statements about creativity and education circulate theories of creativity and education. Discourses are theoretical practices. I understand discourse as a statement or a group of statements that, within a certain historical context, are understandable to a person or group of persons. A discourse is also a single system of analyzable rules and transformations that govern these statements. Discursive theories are the theories that

are implied in discursive practices. For example, Einstein's "creativity is intelligence having fun" is not meant to represent a reality that exists out there in the world. The theory is neither a random formulation that is free of constraints and has no significance. Within the historical context I inhabit, the theory makes sense to me. If I consider it seriously, I may want to attend to fun in my pursuits of creativity and construct myself as a subject of creativity. As I engage with a wide range of educational discourses of creativity, my quest is to see the possibilities of subjectivity in the present era. This vision has implications for how I live my life as a free person. Obviously, my understanding of and calling attention to discourse embodies a Foucaultian influence.

On his own scholarship, Foucault once shared: "The goal of my work during the last twenty years has not been to analyze the phenomena of power, nor to elaborate the foundations of such an analysis. My objective, instead, has been to create a history of the different modes by which, in our culture, human beings are made subjects" (Foucault, 1982, p. 208). This is not to lessen the importance of his analysis of power but to highlight his concern for how discourses produce subjects. A subject is not a primitive unit but a series of effects, a function of the language it speaks and the discipline of its body. Foucault's notion of the subject as an artifact of discursive formation is by no means a deterministic reduction of humans to products of discourse. The perspective does not pin down a parsimonious description of the essence of humans. Instead, it undercuts forms of essentialism so as to make space for the practice of freedom. Foucault's analysis of power matters as it connects possibilities of subjectivity to ethics, especially the task of self-invention, which recurs as a central theme in Foucault's oeuvres. For Foucault, power is relational—it is exercised rather than possessed. Foucault delineated four modes of power in his critiques of democracies (Fendler, 2010). 'Sovereign

power' denotes authorities' control of other people through physical punishment and rewards. 'Pastoral power' is exercised to protect and nurture other people. 'Bio-power' works through our relationship to demography. Foucault was particularly interested in 'disciplinary power', the kind of power we exercise over ourselves based on our knowledge of how to fit into society. Wrestling with discourses could be an exercise of power to (re)invent ourselves relative to our freedom. Governance and freedom are not oppositional but constitutive of each other. The relationship in which we govern ourselves as free people is termed 'governmentality' (Fendler, 2010). Foucault's investigation into discourses and their subjects is often known as 'genealogy', the study of a cross-section of artifacts in a particular time to figure out what kind of people would fit into that set of artifacts. This style of work informs governmentality. It is critical and provocative rather than normative.

The significance of discursive theoretical practices has been made sensible to educational scholars. Hundreds of scholarly studies have highlighted the various meanings of creativity and their implications, quite a few of which are tinged with a Foucaultian sense. Banaji, Burn and Buckingham (2006) distinguished ten rhetorics of creativity, demonstrating that complex, opposite, and complementary claims about creativity are being made and educational researchers, practitioners, and policy makers need to position themselves in relation to these claims. Martins (2014) tackled how creativity is being addressed in European educational discourses drawing on the systems of reason that make possible to think, act and see the creative self in our contemporaneity. Ben (2015) outlined the socio-political and economic coordinates that have given rise to the Spanish creativity movement within music education. She approached creativity as a pedagogical object, exploring this construct's ambivalent association with long-standing tropes about curriculum design and the social role of education. Sharing similar

interests, this dissertation studies the enactment of theories of creativity and education in social discourses since the late twentieth century. The specifics of my work would contribute to the Foucaultian tradition of educational research.

This dissertation approaches speakers who are educational policy makers, researchers and teachers. I am one among them. With enthusiastic involvement and critical distance, I inquire into how educational experts fashion education, themselves, and possibilities of subjectivity for others. I attempt to bring into view a variety of propositions about creativity and education, concrete theoretical moves, and their ethical and political significance. My work could be located in the field of educational theory and philosophy; however, I am not concerned with proposing a new set of criteria for what counts as education. This project is not rooted in a well-defined field of education or a fixed, singular definition of education. I treat creativity and education as discourses, which present multiple theories of creativity and education I am supposed to map. The discourses of creativity and education interact with discourses of policy, psychology, technology, art, philosophy, etc. This dissertation is designed as a genealogy, an expedition to five contemporary discursive spaces where creativity and education are coupled. Each space presents a particular discursive regime of creativity. These spaces are far from an exhaustive list of the educational spaces in which creativity vibrates. By chance, I have been in touch with them more than others.

A Rancièrean Treatment of Discourses: Distribution of the Sensible and Equality

Jacques Rancière, a philosopher I have been enamored with since my first days at Michigan State University, has also influenced the way my work has been shaped. Foucault and Rancière are compatible, yet different. Since this dissertation focuses on the sayable, I find Foucault's terms relevant and use them throughout the dissertation. However, it is worth seeing

Foucault's terms with a Rancièrean sense. Rancière's conceptual formulations shine a new light on discourses. On one hand, this new light illuminates my inquiry. On the other hand, my inquiry aims to contribute to the visibility of Rancière's philosophy in educational research.

Rancière places discourses in relation to sensory perception. An order of discourses and sensory perception is described as a 'distribution of the sensible', that is, of what is "capable of being apprehended by the senses" (Rancière, 2004, p. 85). It is a composition/partition of communal forms of perception that determines what is allowed to be visible or audible as well as what can be said, made or done. Rancière's career trajectory exhibits a consistent concern about community—forms of being together and separate. Many of the key words in Rancière's writings, including 'regime' and 'dispositif', are found in Foucault's works. These terms, when appearing in Rancière's writings, refer to not only the sayable but also the sensible, mostly the visible since Rancière has written extensively about the visual arts and vision can stand for perception. A regime or a *dispositif* is a frame that puts things and practices together under the same meaning—a community of sense. Subjectification is a very specific process, the process of becoming a collective subject on the presupposition of equality. A brief introduction to Rancière's equality might be helpful to make sense of how the studies included in this dissertation hang together.

While Foucault thinks of modernity and democracy in terms of governmentality, Rancière's inquiries are centered upon equality. Equality has long been identified as an achievement of modernity. As Deranty (2010) commented:

> It is one of the fundamental principles underpinning national and international constitutional and legal documents in modernity. As such, the principle has been taken up

> as a key assumption and commented upon by innumerable social and political thinkers, from the early nineteenth century onwards. (p. 183)

Deranty did not mention specific legal documents, but it is not difficult to recall a few. For example, in response to issues related to former slaves following the American Civil War, Amendment XIV to the United States Constitution adopted in 1868 addresses citizenship rights and equal protection of the laws. It states: "No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the *equal* protection of the laws" ("Fourteenth Amendment to the United States Constitution," n.d., para. 6, emphasis added).

Despite the attention paid to equality by "innumerable social and political thinkers," the word predominantly entails the distribution/presence of the same property to/in every person. Liberal democracy valorizes individuals' equal opportunities. Deliberative democracy emphasizes equal, authentic participation in decision-making and the rule of majority. In educational discourses, we have heard of 'equal rights', 'equal opportunities', 'equal inputs', and 'equal outcomes'. Rancière picks up 'equality' to spark off debate. He reminds us that the notion of equality as the same quantity/quality makes inequality inevitable, even overwhelming. Equality as such has become a goal projected into the future, an ideal state that never comes and perhaps, in many circumstances, should not. This theory of equality (re)produces inequality. Rancière brings into view that equality can also mean the dismantling of boundaries and hierarchies. In Western history, as Rancière demonstrates, the dismantling of boundaries and hierarchies became remarkable with the transformations in the arts in the late eighteenth century, where principles of representation were abolished and everything could become the proper

subject matter of art. Equality as the dismantling of boundaries and hierarchies makes possible the introduction of new objects/subjects into a social practice and the enjoyment of aesthetic experience rather than representing the equal distribution of the same property. Equality specific to Rancière is an assumption to be postulated and verified. Once equality is postulated, it transforms how we think and see every aspect of life, including education and creativity.

Theoretical practices could be analyzed from the Rancièrean perspective of equality to make explicit how it is related to equality. Equality is neither sameness nor difference. It is not a norm but a challenge to norms, a state of deregulated perception. Foucault's scholarship, for example, evokes a peculiar sense of equality. Critiquing what Rancière would term 'police orders', Foucault's writings are exemplary of endeavors to push the limits of thought. They have never been normative. That Foucault avoided a position of mastery lends support to Simons and Masschelein's (2011) claim that Foucault's writings were conceived from a(n) (ex)position of equality.

The educational discourses of creativity particularly benefit from Rancière's equality as the recent marriage between creativity and education presents an effort to democratize creativity – to bring creativity to everyone. Creativity used to be limited to a few geniuses. It has now become an attribute that everyone is supposed to cultivate. The assumption that everyone is capable of creativity appears as a move of equality. My dissertation studies how that assumption (everyone is capable of creativity) can shape education. I argue that there are at least two versions of "everyone is capable of creativity." One embodies predominant equality, which could be renamed as a form of inequality, and the other embodies Rancière's distinctive equality. My approach to the target discourses addresses how our theorizations of creativity and education are

ingrained in instrumentality and inequality and how it is possible to theorize creativity and education on the postulation of equality.

In a Rancièrean spirit of equality, inequality (instrumentality, deficiency, consensus, or police order) is not an inferior position. I do not rename predominant equality in the name of inequality to denounce the achievements of modernity. Indeed, Rancière's theorization of equality has inspired me to more appreciation of modernity. My work brings into view different creativities and educations. The existence of different creativities and educations is a function of equality rather than inequality. It illustrates a phenomenon Rancière would term 'literarity', the free re-inscription of the meanings of words and things, a product of modernity. At the same time, in search for a wider range of theoretical possibilities, I think it is beneficial to see how various theories of creativity assume inequality. My project features many speakers who are passionate about the educational discourses of creativity that assume inequality. Their passion is not necessarily a matter of inequality. I do not critique people and their experience. I only critique inequality as it is implicated in discursive theories. Moreover, inequality means neither good nor bad. Inequality presents an order that limits the possibilities of subjectivity. This limitation is neither good nor bad by itself.

This dissertation does not perform explicit analysis of the relation between discourses and experience. However, as I write it, I ask how my words might invite ways of seeing and move human bodies. Focusing on the sayable does not mean to assume that sayability is more important than bodily movement and muteness. Words also have their flesh. Sometimes they breathe rather than speak. They could generate silence. They sometimes turn into just a piece of crystal jewel, sparkling. I strive to work with my words in a way that respects human experience.

While attempting to upset what is often taken for granted in an uncompromising manner, I hope to remain humble and appreciative.

The Five Chapters

This dissertation consists of five chapters—five parallel studies. I arrange them in an order that allows the easiest movement from the beginning to the end, but my readers can read it in any order.

Chapter 1 critiques the neoliberal regime of creativity as it is made present through a cross-section of artifacts that includes articles and books written by scholars, published in English since 1990s, exhibiting a concern for creativity in education, and framing their debate in relation to state policies in the United Kingdom (UK), the United States (US), and China. It describes three rival *dispositifs* of neoliberal creativity and argues that the neoliberal regime of creativity performs consensus, aligning different worlds and shutting down alternatives.

Chapter 2 tells a story of how educational psychology has invented instrumental creativity. It sheds light on how the psychometrics and the cognitive psychology of creativity have made creativity an educational problem. While the educational psychology of creativity has loosened the tie between creativity and innate abilities and made creativity present in everyday activities, psychological theories of creativity establish police orders and make possible the administration of the individual.

Chapter 3 follows the curriculum of extended TRIZ in Việt Nam, a case in which a scientific post-psychological theory of creativity in engineering is adapted into a general theory of creative problem solving and taught to the general public. While introducing TRIZ based theories of creativity, differing from the other chapters, Chapter 3 focuses on the process and aspects of curriculum development. It looks into how new theories of creativity are made

available to people. I portray curriculum development as a process in which the person in love forms himself as a teacher, integrating into as well as generating the sensible of creativity and education.

Chapter 4 studies theoretical possibilities of arts education. It critiques the instrumentalism of discipline-based arts education (DBAE) and suggests a non-instrumental way of theorizing art in which what is specific about art is surprisingly not the artist's act of creation and their well-recognized achievements. This study highlights Rancière's theory of politics and aesthetics and the possibility to identify art and art education in accordance to the aesthetic regime of art. Creativity in aesthetic art could be understood as the arrival of political communities of sense, which is actually not limited to art. Surprisingly, if I only attend to the separateness of art from other spheres of experience, then art is not characterized by creativity.

In Chapter 5, I enter the field of philosophy and attend to education as the creation of subjectivities. This study engages with Levinas, Foucault, and Rancière's theories of subjectivity and the ways in which subjectivity can be related to creativity. I also envision an ethic of equality as a way to relate to the possibility of creativity in education.

While the chapters could be seen as independent projects, they also hang together as a topography of theoretical practices in education, an inquiry into the possibilities of subjectivity, or a critique of capitalism. The chapters demonstrate how education is shaped by discourses of policy, psychology, technology, art, and philosophy. They shed light on various dimensions of theoretical practice in education. First and most importantly, they elucidate the extent to which educational theories make room for possibilities of subjectivity. Chapter 1 shows how consensus is constructed to assert that there is no other alternative. Chapter 1, Chapter 2 and Chapter 3 make visible the kinds of person that instrumental theories of creativity summon. Chapter 4 and

Chapter 5 describe how dissensus can be built into theory so as to open up opportunities to make a difference to a community. Secondly, the historical localization of theories presents another dimension. Chapter 3 showcases how a theory of creativity develops and hangs together with other educational theories in a specific site of educational practice. Thirdly, there is also a professional dimension of theoretical practice, where the concern is to establish professional authority. Chapter 2 offers an illustration of this concern and its effects.

It is also possible to read this dissertation as a critique of capitalism. Chapter 1, Chapter 3, and Chapter 4 critique neoliberalism. Chapter 2 suggests that psychological theories of creativity turn creativity into a possession of the creative person. Chapter 4 and Chapter 5 delineate theoretical setups where creativity cannot be accumulated and sold as a commodity.

CHAPTER 1

IN A RELATIONSHIP WITH NATIONAL POLICIES:

THE GLOBAL NEOLIBERAL REGIME OF CREATIVITY IN EDUCATION

Introduction

In 2013, many of my Facebook friends shared articles about the positions of Việt Nam in various global creativity indexes, including the global innovation index (GII)[1] by the World Intellectual Property Organization and the global creativity index (GCI)[2] by Martin Prosperity Institute. They discussed how the Vietnamese were not as creative as citizens in neighboring countries such as Malaysia and Thailand. There was an agreement on the desirability of and connection between creativity and innovation.[3] This instance of communication demonstrates that creativity has become a prominent global concern. Instead of focusing on the specifics of the construction of global indexes of creativity, I am interested in how we are speaking about creativity. Statements that compare how nations are functioning in terms of creativity are surfacing this globalized world. They give intelligibility to the indexes, efficient notations of how creativity is to be understood. Our discursive sphere presents a dominant theoretical setup of creativity to which I refer as the 'global neoliberal regime of creativity' (GNRC).

GNRC has emerged since the late twentieth century and strongly influenced education. In many nations, creativity has become the hallmark of education reform for the twenty first century. From a perspective resembling Foucault's genealogy, this chapter attempts to articulate

[1] Global Innovation Index (GII) relies on two sub-indices, the Innovation Input Sub-Index and the Innovation Output Sub-Index, each built around key pillars. Five input pillars capture elements of the national economy that enable innovative activities: (1) institutions, (2) human capital and research, (3) infrastructure, (4) market sophistication, and (5) business sophistication. Two output pillars capture actual evidence of innovation outputs: (6) knowledge and technology outputs and (7) creative outputs.

[2] The Global Creativity Index, published in 2011 by the Martin Prosperity Institute, is based on three human factors (1) technology, how technologically savvy the country is, (2) talent, how capable the workforce is, and (3) tolerance, how open the people are to new ideas.

[3] 'Innovation' is widely understood as the successful implementation and marketization of creative ideas.

how the global neoliberal regime of creativity in education (the educational GNRC) theorizes creativity, education, and the social world, and hence implies how we govern ourselves as free people. A critical project, it aims to challenge what is usually taken for granted and invite alternative theoretical practices.

I critique the educational GNRC as it is made present through a cross-section of artifacts including articles and books published in English since 1990s that exhibit a concern for creativity in education and frame their debate in relation to state policies in the United Kingdom (UK), the United Sates (US), and China. Predominantly featured in the neoliberal discourse of creativity in English, the UK, the US, and China stand out as the primary empires. I started my inquiry with scholarly publications and went on examining the policy documents and popular opinion pieces connected to the scholarly texts. My interest is not the artifacts per se but the neoliberal theory of creativity for education fashioned and contested by them. Rather than reviewing neoliberal state policies on creativity in education, this essay engages with how the neoliberal theory of creativity for education manifests discursively in relation to national policies. In a relationship with national policies, creativity offers a standpoint to see the connection between the governing of the state and the governing of the individual. Approaching educational theory from a genealogical perspective allows me to attend to not only theoretical propositions on education but also concrete strategic rhetorical practices and conditions for power relations and subjectivity. Specifically, the chapter identifies three strategic patterns of deploying arguments for neoliberal creativity—three rival *dispositifs* of neoliberal creativity. It also outlines the neoliberal configuration of assumptions about creativity, education, and the social world, demonstrating that the neoliberal regime of creativity in education is establishing one single vision of reality to which everyone is supposed to relate. In Rancière's terms, globalization can

be seen as the reign of 'consensus', a project of 'depoliticization', and the establishment of a world 'police order'. Creativity becomes characteristic of this police order. It signifies a mode of governance that resonates with Deleuze's 'societies of control'.

The Production of the Creativity Crisis in Education: Three *Dispositifs*

Not everyone agrees that there is a creativity crisis, but the speakers calling attention to the importance of creativity in education, a loose alliance of policy makers, capitalists, academics, artists, and educationalists, have brought into discourse a crisis to tackle: education is inadequate for creativity. The contention is predicated on three assumptions: (1) creativity, the ability to make new things and to adapt to new situations, is necessary for survival and success in the global economy, (2) everyone has creative potentials, and (3) education systems are stifling creativity. The creativity crisis argument places schools, teachers, and students in a state of deficit in justifying the need for education reform, which is usually discussed as a matter of state policy. The production of the creativity crisis in education has varied across nations, displaying rival *dispositifs* of neoliberal creativity. This section describes the *leading dispositif*, the *liberating dispositif*, and the *learning dispositif* that correspond respectively to the three nations of interest, the UK, the US, and China.

The United Kingdom—Pioneering in Education Reforms for Creativity

The U.K. *dispositif,*[4] the *leading dispositif*, positions the UK as the world pioneer in education for creativity by affirming British creativity, launching creativity as the government's official education policy, generating an abundance of publications on creativity, and shifting the meanings of creativity.

[4] England has an eminent presence among the four constituents of the UK. The different regions of the UK vary in their creativity policies; nevertheless, the UK is treated as an entity, a unit of analysis, in many artifacts.

Tony Blair, on the official website of *Creative Partnerships*, a flagship creative education program of the New Labour government, pronounced the UK as "the most creative country."

> I believe that we live in the most creative country in the world. A country which fizzes with skill, incentives and ideas. But to keep that creativity alive in the future, we have to engage anew every generation, to pass on old skills and help them learn new ones. (Tony Blair, 2003, cited in Compton, 2007, p. 110)

Gordon Brown, in his foreword for *Creative Britain*, also asserted that British creativity inspired people around the world (Brown, 2008).

New Labour's initiatives in its three consecutive terms in office (1997–2010) gave impetus for the neoliberal discourse of creativity. In the UK, since 1997, creativity has been a ubiquitous policy term boosted by the government in the spectrum of public policy including economy, culture, and education. Considering creativity an important source of capital for modern Britain in the twenty first century, New Labour proposed that it is the government's duty to foster every individual's creative potential through education (Labour Party, 1997). A number of policy documents on creativity, both those that provide contexts for creativity in education and those that directly address education, have become the common spectacles scholars repeatedly point to. They include speeches and writings authored by the Labour Party, its highest leaders, and the DCMS taskforce[5] (e.g. Labour Party, 1997; Smith, 1998; Blair, 2001; DCMS, 2001, 2007, 2008; Brown, 2008), government commissioned reports prepared by researchers (e.g. NACCCE, 1999; Seltzer & Bentley, 1999; Craft, 2001; Banaji, Burn, & Buckingham, 2006), and policy guides for practice published by the government's education authorities (e.g.

[5] The task force in the Department of Culture, Media and Sport that was in charge of DCMS publications on creativity

DfES,[6] 2003; QCA, 2004). After the Great Recession triggered by the collapse of the American financial system in 2008, creativity seems to have been downplayed by employability (Ward, 2014). However, the neoliberal discourse of creativity, as promoted by New Labour, remains influential. It might be interesting to note that the Conservative Party declares itself as a 'party of change', an appeal to creativity and innovation (Cooke, 2010).

Responding to the state's rhetoric of creativity, scholarly publications have analyzed the policy documents' theorizations of creativity and called attention to related issues. Educational journals released special issues on creativity.[7] Other social sectors also joined the discussion. The new body of literature on creativity has actualized a shift in the meanings of creativity for education. The shift is not unique to or necessarily started in the UK, but the UK based discursive practices have undeniably played a leading role in enacting the shift. To characterize the shift, a distinction is made between the current educational epoch of creativity and the 'golden age' of creativity in education—the three decades following 1945, the post-war settlement period (Maisuria, 2005; Brundett, 2007; Jones, 2011). In the earlier period, education reform was shaped by the discourses of 'child-centered pedagogy', 'creative expression', and 'personal growth'. These discourses have composed a liberal regime of creativity in education. They made room for new educational visibilities, described as follows:

> […] many schools emerged from a Victorian tradition of chalk and talk and moved towards a new vision of creative learning. The changes witnessed in this period affected all aspects of primary education from the design of buildings, the way subjects were taught, even the places where children sat. Many new schools were constructed that

[6] DfES (previously DfEE) stands for Department of Education and Skills. It became later split into DCSF (Department of Children, Schools and Families) and DIUS (Department of Innovation, Universities and Skills) in 2007.

[7] Examples are *Cambridge Journal of Education* (36, no. 3, 2006), *Education 3-13* (35, no. 2, 2007), *British Educational Research Journal* (34, no. 5, 2008), and *London Review of Education* (10, no. 2, 2012).

> included open-plan classroom, a rich environment of displays of children's work and learning artefacts. Teachers were encouraged, more than ever, to take on broad notions of learning through experience. New methods in the teaching of reading, writing and mathematics were introduced and the integrated day, where children took part in a variety of activities rather than focus on one topic at the same time, became common place. Even the furniture of classrooms changed from the ancient wooden desks, sometimes with iron subframe, to modern tables that would facilitate group work and discussion. British schools were at the forefront of this movement but such changes were witnessed internationally. (Brundett, 2007, p. 105)

Creativity in the liberal regime basically means individual freedom. It assumes a humanist subject capable of resisting structures from an original and authentic self. Expressions of an original and authentic self are creative. This notion of creativity speaks against the totalizing effects of rationalization and creates space for the subjectivity of human experience. Nevertheless, the liberal discourse of creativity does not pay due attention to how individuals are related to one another and how the creative self is formed. Since individuality is conceptualized as "something evolving from essentially innate or private impulses" (Gibson, 2005, p. 158), it is easy to assimilate creativity into an economic frame of privatization and competition. That explains why elements of liberal creativity are seen in the neoliberal configuration of creativity, which explicitly casts creativity in economic terms.

The end of the golden age of creativity in education could be traced to the moment of the Ruskin speech by James Callaghan in 1976, which announced a vocationalization of the school curriculum (Maisura, 2005). Margaret Thatcher's reforms later implemented a highly centralized and standardized framework. Creativity was opposed to rigor. Creative subjects were criticized

as "'drapes and driftwood' rather than solid learning of core subjects" (Brundett, 2007, p. 105). Eighteen years of Thatcherite rule, usually deemed responsible for the neoliberal turn in the UK, reconstructed education into an ailing industry in need of external control to better benefit the free market. New Labour supplemented the standards agenda with creativity.

In the new rhetoric of education reform, creativity is firmly based in economic rationality. New Labour's 'Third Way' paradigm proclaimed to strive to balance pro-social and pro-market purposes of development. However, a growing priority for pro-market objectives was observed (Neelands & Choe, 2012), and the pro-social logic was market-based. Neoliberalism translates social problems into personal responsibilities and extols the virtues of the market. In lieu of creating jobs for unemployed young people, New Labour offered the underprivileged students educational activities such as dance classes and mural painting on the rationale that the arts and creativity can help tackle disaffection and alienation and enable students to be in charge of their lives (Ward, 2014). The neoliberal discourse of creativity upholds a rational choice theory according to which we are all free to maximize our talents and fashion the life we want through market relations. Programs such as *Creative Partnerships* supported the theory by guaranteeing equitable talent maximization and absolving welfarism (Ward, 2014). Ultimately, creativity is to achieve personal fulfilment and to create a national sustainable economy.

The desire for creativity in school curriculum particularly connects with an imperative to develop a new type of workforce, resting on the argument that a global market enhanced by technology requires a different set of skills. The end of the twentieth century witnessed vast changes in the economy landscape and company ecosystem, including intensified global competition, the growth of cultural industries, the rise of financial markets, the increase in the number of small businesses, the development of self-employment, etc. It is argued that for

productivity and competiveness, manual work and raw materials has become secondary to "intangible resources such as information, organisational networks and human capital" (Seltzer and Bentley, 1999, p. 1). The "weightless economy" calls for "a whole new range of skills, from problem-solving and communication to information and risk management and self organisation" (Seltzer and Bentley 1999, p. viii). 'Creative skills' has become synonymous with generally desirable virtues of learners and workers in an economy defined by innovative application of knowledge. Neoliberal creativity is entrepreneurial rather than artistic. It is focused to a person's ability to draw from the entire range of their experience to respond productively to new economic challenges. Due to technological development, changes are happening faster, and one must rise to the challenge of adaptability. Thus, creativity is "not only a set of skills, but a modality of life" (Jones, 2011, p. 87).

One striking feature of creativity in educational neoliberalism, especially in the UK, is its intertwinement with performativity, a mode of regulation that frequently subjects educational work to measurements of quality.[8] Creativity, when coupled with performativity, is not only about using resources to solve problems effectively but also performing in accordance with quality standards under surveillance systems. Studying two official government documents on creativity in education, the *Excellence and Enjoyment* DfES publication and the QCA website *Creativity: Find it and Promote it*, Turner-Bisset (2007) showed how their language recommends standards-based practice. For instance, the QCA website linked creativity to

[8] 'Performativity' in education is a term often attributed to the British sociologist Stephen Ball, who defined it as follows: "Performativity is a technology, a culture and a mode of regulation that employs judgements, comparisons and displays as a means of incentive, control and attribution and change – based on rewards and sanctions (both material and symbolic). The performances (of individual subjects or organizations) serve as measures of productivity or output, or displays of 'quality,' or 'moments' of promotion or inspection. As such they stand for, encapsulate or represent the worth, quality of value of an individual or organization within a field of judgement" (Ball, 2003, p. 216).

purposefulness and provided behavioral checklists for important questions about creativity. Purposes and behavioral checklists behave as standards against which teachers can measure their performance. The coupling of creativity and performativity summons a new kind of teacher autonomy, 'productive autonomy', to borrow Gleeson and Gunter's (2001) term.

In summary, the UK *dispositif* fabricates a nation at the forefront of international education reforms for creativity in different historical periods. The UK's enthusiasm in shaping the neoliberal meanings of creativity evokes the image of a well-established empire that has never forgotten to keep up its leading role. Neoliberal creativity is less a capacity to transform the world than a capacity to adapt to a prevailing social order of economic complexities.

The United States—Catching Up or Leading the Way?[9]

During the Cold War, the US government mobilized creativity as a means to combat communism through technological supremacy and advance a model of capitalism honoring the American traditions of freedom and ingenuity (Ward, 2014). Creativity was more associated with research and business than public education. In psychology, a science closely related to education, creativity was first posed as a major research problem in Guilford's presidential address at the annual conference of the American Psychological Association in 1949. American corporations were the first to colonize creativity research in psychology by budgeting millions of dollars for creativity training programs (Cropley, 2010). Nevertheless, unlike the New Labour government in the UK from 1997 to 2010, the different governments in the US since the late twentieth century have not embraced creativity as an overarching term for education reform. Education reforms launched by the US government are framed in terms of accountability, similar to the UK's performativity. The accountability shift from inputs to outcomes over the last

[9] *Catching Up or Leading the Way* is the title of a book by Yong Zhao.

decades is said to have begun with the Elementary Secondary Education Act of 1965 and culminated with the No Child Left Behind Act (NCLB) of 2001. Creativity in education has been most remarkably levelled as criticism against NCLB. The US *dispositif* asks to liberate creativity from standardized testing. Educational researchers play a key role in forming the *dispositif*. To feature their argument strategies, I turn to two prominent speakers, Yong Zhao, professor at the University of Oregon, and Kyung Hee Kim, professor at the College of William and Mary. I will also briefly discuss Beghetto, Kaufman, and Baer's (2015) recent pull in favor of the match between creativity and standards.

An active public figure, Yong Zhao maintains a public blog with a large readership, speaks about creativity at conferences, and has published three well-known books about creativity (Zhao, 2009, 2012, 2014). Zhao's works consistently urge education policy makers everywhere to shift away from standardization to creativity, which he understands as globalization. Zhao resorts to creativity as an appeal to the traditional strengths of the US and hence questions the problematization of the American education system based on its students' mediocre scores in standardized tests (Zhao, 2009). He pointed up measures of creativity that demonstrated American superiority such as the number of Nobel prizes and patents. Conflating creativity with entrepreneurship, Zhao's (2012) *World Class Learners* envisions a new global entrepreneurship paradigm for teaching and learning in schools. Zhao fabricated an inverse relationship between standardized test scores and entrepreneurship activities by showing a pattern of negative correlations between countries' performances in Programme for International Student Assessment (PISA) 2009 and entrepreneurial qualities as indicated by the 2010 and 2011 Global Entrepreneurship Monitor (GEM) reports. In interpreting the negative correlations, Zhao used two hypotheses: (1) excellent academic achievement may be the result of a lack of other

options, and (2) the efforts to pursue academic achievement may hamper entrepreneurial qualities. It could be noted that PISA has also advanced the discourse of entrepreneurship and innovation. It claims to measure literacies, the capacities to solve real-world problems, an important dimension of entrepreneurship Zhao himself advocates.

While Zhao affirmed the US's superiority in creativity, Kim (2011) constructed an American creativity crisis based on American students' declining scores in the Torrance Tests of Creative Thinking (TTCT). Kim expressed a concern about the harms academic standardized tests might have done to creativity and linked the declining creativity scores to the government's standardization policy. Kim's work generated a national and international discussion on 'the creativity crisis'. *Newsweek* started the discussion in psychological terms (see Bronson & Merryman, 2010). It was then reframed by various media in economic terms to contend that the US needed to redesign schools to prepare a creative work force to lead the world economy (see Richardson, 2011; Wurio, 2013).

Both Zhao (2009, 2012, 2013, 2014) and Kim (2007) compared how Asian countries and the US differ in treating creativity. They argued that Asian education systems inhibit creativity through heavy standardized testing. Their strategic comparison articulates the need for policy change while asserting the US's superior position. Below is Zhao's opinion of East Asian education systems in his own words:

> It is no exaggeration to say that that the majority of the parents in China would send their children to an American school instead of keeping them in the "best performing" Chinese system, if they had the choice.
>
> The East Asian education systems may have a lot to offer to those who want compliant and homogenous test takers. (Zhao, 2013, para. 6–7)

The debate on creativity in education in the US has been recently enriched by Beghetto, Kaufman, and Baer's (2015) *Teaching for Creativity in the Common Core Classroom*. The authors assumed that teaching to well-designed standards is completely consistent with teaching for creativity. Without advocating standardized testing, they argued that the Common Core State Standards emphasize deep conceptual understanding that supports creative thinking and adaptive expertise. Their argument for the match between creativity and well-designed standards appeals to national education policy, but their distinctive contribution is to forge a stronger relationship between creativity and cutting-edge psychological research. Although their definition of creativity as the capacity to learn, to solve problems, and to excel in a social field lends itself to the discourse of knowledge economy, the authors were explicitly cautious against making economic growth the primary rationale for creativity in education. They worried that this would render education for creativity vulnerable to critics who argue that certain programs for creativity should be removed from the curriculum because there is no evidence that they boost the Gross Domestic Product.

It might be worth noting that the notions of creativity mobilized/used by the speakers above vary. Creativity in TTCT, developed since 1966, points to divergent thinking, defined as thinking of many possible responses to a given question. Divergent thinking is not the same as the notion of creativity as learning and problem solving in Beghetto, Kaufman, and Baer's work. Zhao's definition of creativity as entrepreneurship also differs from the TTCT's conception of creativity, but he utilized Kim's works to make a case for creativity in education (Zhao, 2012). My gesture toward the different creativities is to suggest that in a passionate relationship with national policies, as exemplified in how Zhao has argued for creativity and how the public has made use of Kim's works, the specific contents of creativity tend to become less important than

its function to ensure economic benefits and arrange social beings in a global economic hierarchy.

The Every Student Succeeds Act (ESSA) of 2015, the successor to NCLB, lessens the focus on standardized test scores and makes some other important changes. ESSA will affect the US educational discourses of creativity in ways that I cannot predict. Speaking about the US *dispositif* as the *liberating dispositif*, I do not aim to prove that the incompatibility between creativity and the US standards agenda has been more visible than the compatibility between them. My aim is to introduce another possibility to produce a creativity crisis in education, a *dispositif* of neoliberal creativity where creativity is a rationale to resist state policies, which I see as an important volume in the US educational GNRC. This *dispositif* accentuates the fact that neoliberalism is not solely dictated by the state. Scholars have played in an active role in promoting neoliberal creativity in education. Moreover, even when an original work by a scholar does not readily couch creativity in economic terms, creativity can be easily appropriated into an economic frame. That the scholars establish a relationship with national policies implies a belief in the power of the central government, but neoliberal creativity is voiced by speakers in various sectors.

China—Transforming into a World Leader in Innovation

The UK and the US represent 'the West', and China represents 'the East'. Based on a shared notion of creativity, a vertical comparison between 'the West' and 'the East' in terms of creativity prevails that Easterners are less creative. Zhao and Kim are not the only proponents of the theory that Asian culture is incompatible with creativity.[10] The Chinese *dispositif* of

[10] See, for example, Aik-Kwang (2001) and Lau, Hui, and Ng (2004).

neoliberal creativity represents the learning logic: with respect to creativity, China must strive to learn from the West.

Publications on creativity in Chinese have experienced exponential growth (Hui & Yuen, 2010), but this inquiry only affords to consider articles and books published in English, mostly from Singapore, Hong Kong, the UK, and the US. The writers, mostly scholars, are interested in either policy documents (Hui & Lau, 2010; Pang & Plucker, 2013) or the discourses floating in the society as teachers, students, and parents relate creativity to China's education policy (Woronov, 2008). They display a creativity crisis from either their perspective or Chinese speakers' perspective. The comparative lack of creativity among Chinese students is attributed to Chinese social values, school pedagogical practices, and educational testing systems. Creativity (*chuàngzào lì; chuàngxin jingshén*) is associated with the reform movement called 'Education for Quality' (*sùzhì jiàoyù*) and the social discourse of 'population quality' (*rénkǒu sùzhì*) (Woronov, 2008). The reform movement tackles the question of what kind of subject the state must produce for the nation's future. It follows the dramatic, wide-ranging economic reforms that took place during the 1980s and 1990s, which sought not only to realign material interests but also to change people's conduct, "to make people more productive and less dependent on the state" (Keane, 2011). The reform is understood as an effort corrective of Mao Zedong's 'excessively leftist' policies (Woronov, 2008). Creativity, the central concept through which 'quality' is being built, is also positioned against thousand years of cultural traditions, especially Confucianism, which is said to value obedience, order, and hierarchy. Most importantly, the reform cannot be separated from China's entry into the global market economy and its ambition for a transition from 'Made in China' to 'Created in China', from 'sweat industries' to 'creative industries'. After opening its doors to the outside world, China has turned into a world

factory. “A labour-intensive, resource-exhausting and low-value-added manufacturing power with a lack of core technology and an imbalanced ecological system” has resulted in a series of social problems (Wuwei, 2011, p. 50). Since 2004, the concept ‘creative industries’ has spread and challenged existing ways of doing things and old industrial models (Wuwei, 2011). Like the UK and US creativity crisis arguments, the discourse in China is also couched in terms of neoliberalism, which assumes capitalist gain as the ultimate goal.

Pang and Plucker (2013) offered a thorough review of transformations in China’s policies related to creative education. According to the review, before the mid-1990s, Chinese education’s most important task was to popularize 9-year compulsory education, and official policies rarely mentioned creativity. Since the last few years of the twentieth century, creativity has been stipulated in the national laws of education. For example, to cultivate the professional talents with the spirit of creativity and practical abilities was among the listed educational goals in the *High Education Law of the Peoples’ Republic of China* in 1998. In 2006, a separate chapter was added to the *Compulsory Education Law* to specify recommended instructional approaches that support students’ independent thinking, creative ability, and practical ability. For Pang and Plucker (2013), it is difficult to overestimate the importance of this particular policy change: “the Compulsory Education Law has much greater impact on Chinese classrooms than ESEA has on American classrooms” (p. 362).

In describing how schools, teachers, parents, students navigated the policy discourse of creativity, Woronov (2008) reported a state of confusion with what creativity means and how it can be integrated in the school curriculum. She explained the prevalent resistance to and marginalization of creativity as the results of an ideological conflict:

> Although the simple reason is structural, linked to the national exam system, I suggest that there is also an ideological problem: the concept of "quality" is part of an ideology of rational social advancement through merit, measured objectively through numbers (such as test scores). Because creativity cannot be measured objectively, it can only be cultivated outside regular mainstream classes, and teachers relegate "creative thinking" to nonacademic subjects and extracurricular activities. Woronov (2008, p. 402)

In classroom practice, the meanings of creativity are contested since creativity forms a closer relationship with concrete situations than with national policies. While I do not inquire into how the top-down policies of creativity are contested in Chinese schools and families, my very brief reference to the issue is to underline the fact that creativity with its liberal heritage is not readily compatible with standardization. That is also why in the US it is possible to speak about liberating creativity from standardized testing. Nevertheless, similarly to what has happened in the UK policysphere, there have been efforts to align creativity with normal school practices. Woronov (2008) conducted participant-observation research in Beijing from 1999 to 2001, at the beginning of the education reform for creativity. After the recommendation of instructional approaches for creativity in the *Compulsory Education Law* in 2006, innovation/creativity-oriented assessment emerged as an important policy in the *2010–2020 National Outline for Education* and the *12th Five-year Education Plan* (Pang & Plucker, 2013). This accountability move does not simply indicate the availability of more advanced technologies to assess an unchanging phenomenon. Rather, creativity is reconceptualized as measureable. Moreover, even when creativity is open for different interpretations in specific educational practices, the state's proposition that creativity is important for economic

competition and the mission of schools is to prepare the workforce appears unambiguous to speakers.

Neoliberal creativity has spread globally, but the countries on this globe are not equally represented in English. Although the three *dispositifs* are not comprehensive of the ways in which creativity crisis arguments have appeared, my descriptions have invoked some of the parameters that organize arguments for neoliberal creativity in education. Based on the descriptions, for example, as a Vietnamese speaker, I can say that the dominant *dispositif* in Việt Nam resembles the dominant *dispositif* in China in displaying the learning logic. However, the Vietnamese government has not taken a proactive role in reforming education for creativity. It is carrying out a standards-based reform, but it does not emphasize standardized testing as a new reform measure as the US did with NCLB. Proponents of neoliberal creativity in education are making requests to the Vietnamese government for more investment in creativity, the new set of skills that global competition commands, and often claim that their voice is not well-heard. The Vietnamese policysphere presents a *lagging dispositif*. This is perhaps not a surprise given that Việt Nam is commonly known as a developing country whose power is secondary rather than primary as China. What may be bothering is how the world as a hierarchy has been integral to our common sense and how the educational GNRC obstinately tries to reproduce hierarchy.

The Global Neoliberal Regime of Creativity in Education: Thorough Consensus

In this section, I draw on Rancière's conception of consensus to portray how the educational GNRC, as the three *dispositifs* embody, implies governmentality. Rancière's consensus is a highly complex theoretical construct, and within the scope of this chapter, I do not aim to delineate the richness of the concept. I only borrow the key idea of Rancière's consensus: instead of designating the agreement among people, consensus means the establishment of one

single reality that everyone must relate to (Rancière, 2010a). Within the scope of this chapter, I attend to the alignments happening in the sayable layer. I argue that theoretically, the educational GNRC is doing a thorough alignment project. It arranges disparate regions into the same frame of time and space. Various activities are translated into economic terms. Very different people become a population. The present and the future are in concordance by means of a deficit in creativity. Creativity shifts from a source of disruption to a social order and a technology of government. I will give comments on the educational GNRC as a project of Western imperialism, nationalism, managerialism, learnification, and depoliticization.

The dichotomy of the West and the East might be a frame to articulate two opposing conceptions of creativity. It is said that the West traditionally adopts a product-centered conception of creativity whereas the typical Eastern conception of creativity is experience oriented (Lubart, 1999). However, the invocation of different cultures in the educational discourse of creativity around national policies has not been to showcase different creativities but to assert that the East must learn from the West. The neoliberal discourse of creativity is prescriptive rather than descriptive. The regime is totalizing not in the sense that everybody has surrendered to it but in the sense that it supposes everyone is in included in its prescriptive order.

In the hierarchical world of neoliberal creativity, a nation has to improve or maintain its position in the hierarchy of creativity. The three nations present three different positionalities, but they all participate in a race to the top. The competition among nations would not be possible without the speakers who adopt the concept of the nation state to imagine creativity, education, and the world. While the discourse of neoliberal creativity travels across national borders, the nation state persists as a prominent organizing unit. Nationalism and individualism do not stand antithetical. In the neoliberal logic, national prosperity is connected with personal affluence, and

wealth is merit based. Individual entrepreneurship turns into a matter of nationalism. It has become sensible that the population of a particular nation may possess competences that the population of another nation does not. One running thread in Zhao's works is the belief that in order to win in the competition with developing countries, developed countries must develop competences developing countries cannot afford. Creativity is the priority among the competences to the extent that it becomes equivalent to a measure of competitiveness. A nation's competence of creativity is attributed to the individuals' competences within the nation as if it were a statistical problem of summing up the value of each item within a set. With the statistical concept of an average individual in a population, it makes sense to say that a Chinese is less creative than an American. Instead of conceiving individuals as unique persons, the neoliberal regime of creativity normalizes people and treats them as interchangeable. If the issue of community is ever important, it is because a national community consists of individuals who are supposed to share the same identity and have the responsibility for helping improve their nation's position in the global race.

To see neoliberalism's thoroughness in taming creativity, let's look at how creativity, more specifically entrepreneurship, has become compatible with managerialism. The neoliberal regime of creativity in education, in parallel with the neoliberal discourse of creativity in business, has shifted creativity from disruptive to manageable. In economics, the entrepreneur personifies the uncertainty of the free market, where managerial knowledge becomes defective (Boutillier, 2013). In an uncertain context, two economic individuals equipped with the same resources may behave in very different ways. The subjectivity of economic values, the entrepreneur, does not exist in a context of certainty. Schumpeter theorized that entrepreneurial creativity disrupts routines and embodies the continuous economic evolution of capitalism

(Boutillier, 2013). In other words, creativity is characteristic of an order (capitalism), but it is paradoxically a destabilizing force. In 1960s, in the discourse of business in developed countries, creativity still denoted disruption. In *Creativity is Not Enough*, an article published in 1963, the marketing guru Theodor Levitt complained that a generation of talented young people were distracting management by failing to adapt or apply their creativity to the core competences of the firm (Bilton, 2012). Through the 1980s and 1990s, the new generation of mangers saw creativity as a desirable attribute, not a distraction. Entrepreneurship has gradually turned compatible with managerialism in mainstream management theory (Bilton, 2012). Relying on economics, the educational GNRC also highlights the necessity of creativity in the face of uncertain economic conditions. Creativity is associated with uncertainty in a way that renders creativity a resource to ensure success in competition. Creativity is usually understood as the quality of novelty and usefulness; nevertheless, as long as creativity is considered as matter of necessity, the sense of novelty in the notion of creativity erodes. Creativity goes in tandem with standardization, and the reconciliatory logic has turned creativity into an almost empty concept whose function of social management matters more than its substance.

While sharing the notion of creativity as entrepreneurship, the educational discourse differs from the business discourse in its consistent treatment of creativity as a potential and of an individual as a student/ learner—a deficit being. In business, creativity is an available resource to use. In education, creativity is a potential waiting to be transformed into a competence. Students are not creative individuals but individuals with creative potentials that are in need of education. The educationalization of creativity sets up a creativity deficit and assumes its mission in abolishing the deficit. In a frame of competition, everyone is subject to continuous improvements or changes. Deficit and the abolition of the deficit are infinite, and hence life-long

learning becomes necessary. Educationalization is reduced to 'learnification', a term used by Biesta (2010) to denote the domination of 'learning' in educational discourses. For him, the language of learning makes it difficult to question educational purposes, contents and relations. The neoliberal regime of creativity in education prescribes economic success as the purpose of education as a matter of course and the teacher is hence an implementer of prescribed educational agendas. If the neoliberal framework is accepted, then we are left with the task of learning to be creative.

Neoliberalism's transformation of social phenomena in economic terms has been described by many scholars as a process of depoliticization. It is observed that the welfare state emerging in most capitalist countries after World War II, where public institutions were complementary to and interacted with the market, has been replaced by the competition state, one that actively seeks to boost economic growth by supporting innovation, enterprise and flexibility (Lundahl, 2014). The state, rather than retreating, plays a new vital role. Individuals are supposed to become creative citizens who belong to the national community through their economic participation rather than political engagement. The project of economic development is seen as apolitical, a natural means for moving a nation along its teleological path. This inquiry, through an analysis of strategic deployments of reasons, suggests that depoliticization is paradoxically political if politics is understood in as the exercise of power in every activity instead of the participation in a particular social sphere. However, if every activity is political, they may be political in different ways. In the last few decades, Rancière's intervention into the discourses of politics has gained traction. For Rancière, politics is concerned with either establishing or disrupting 'a distribution of the sensible', a composition/partition of communal forms of perception that determines what is allowed to be visible or audible as well as what can

be said, made or done. The kind of politics going on in the neoliberal regime of creativity in education could be termed ‘consensual politics’ or ‘police’. The result is the establishment of a dominant sensible hierarchy. Genuine politics, ‘dissensual politics’, is the verification of equality that occasionally disrupts the world of inequality and allows the coexistence of incommensurable worlds at a particular moment—dissensus (Rancière, 2010b). If there is a process of depoliticization, this process could be understood as the war to dispel dissensus, a process of aligning the worlds that could be otherwise incommensurable. The educational GNRC is the establishment of a world police order. It envisions a global community where everyone is included in the same count. This does not mean the reign of the universal as the regime divides the world in such a way that bodies and their capacities are allocated to positions within a hierarchy. The educational GNRC sets up a new kind of governance, ‘entrepreneurial governance’. It produces entrepreneurial subjects. The emerging notion of creativity as a modality of living to cope with economic changes resonates with Deleuze’s ‘societies of control’ (Deleuze, 1992). Societies of control differ from societies of discipline in three aspects (Fendler, 2008). Firstly, in a control society, the self-monitoring gaze is conducted at a higher frequency. Secondly, regulations and standards in a control society are more heterogeneous and quickly changing. The third contrast is between the disciplinary society’s promise of closure or completion of a project and the control society’s emphasis on no possibility of closure or completion.

Concluding Remarks

The circulation of a particular discourse happens when people speak to each other. This chapter has demonstrated how different speakers articulate creativity in neoliberal terms. It has also raised awareness of the tremendous project of consensus that the educational GNRC is

operating. Rather than the result of discussion that permits agreement between interested parties, consensus is an act to minimize discussion. The educational GNRC assumes that objective necessity dictates creativity for education. There is no alternative. The only solution for everybody is to learn to govern themselves entrepreneurially. However, GNRC does not eliminate the possibility for us to dis-identify with it. Creativity is a word that allows multiple interpretations. Moreover, dis-identifying with GNRC does not necessarily mean to refuse to become an entrepreneur. Rather, I suggest it may mean to challenge consensus in our theoretical practice. We may notice that as educators and scholars, we have practiced consensus, when we prescribe a norm for a group of people, distribute them to social positions within a hierarchy, treat them as interchangeable items, and assume that these acts are a matter of necessity.

CHAPTER 2

EDUCATIONAL PSYCHOLOGY AND THE INVENTION OF CREATIVITY

Introduction

As the term ‘creativity’ circulates in the US, it usually bears a psychological sense. This can be seen as an example of psychologism, the discursive practice of using psychological language and explanations to make sense of experience, a pervasive social phenomenon in the US. Academic psychologists do not control the current psychological discourses of creativity through sovereign power, but they have offered the most articulate accounts of what creativity means for education. Through assorted channels, including scholarly publications, university programs, public media, etc., these articulations have been made available to speakers, forming conditions for subjectivities. To shed light on these historical conditions, this essay attempts to write a genealogy of the educational psychology of creativity. While psychology has been established as an internationally recognized science, the discipline’s operation has varied according to social and cultural circumstances. This chapter only explores the US educational psychology of creativity, a dominant discursive constellation, supposed that the constellation has also related to forces outside the US. Based on the existing histories of modern psychology and creativity and the literature on creativity produced by US academic educational psychologists since the 1950s, this essay tells a story of how educational psychology has (re)invented creativity.

The plot goes as follows: Before creativity became the subject of modern psychology, it was widely conceived in terms of divine inspiration or individual genius—neither source susceptible to deliberate external intervention. Since the later part of the twentieth century, US psychology has inaugurated the disenchantment of creativity, converting it into an object of

scientific study. The locus of creativity is placed on human agency rather than God or chance. Creativity has transformed into a common trait lying in everybody with various degrees, an aspect of calculable individuals and manageable social relations. In reinventing creativity, psychologists have strived to affirm its independence from intelligence, a generous move to broaden and diversify psychology and education. While it is possible to see educational psychology's push for creativity as advocacy of egalitarianism, without doubt, the project upholds instrumentality and inequality. Recently cognitive psychologists have turned creativity from extraordinary thinking into ordinary thinking, but the notion of creativity as out-of-the-box thinking remains influential. The educational psychology of creativity has played a significant role in making the teaching of/for creativity a sensible idea and practice.

Treating psychology, education, and creativity as discourses, I am interested in exploring the points at which they interact and hang on together. This essay engages with psychological theories of creativity that are also educational theories. I write the story with an explicit aim to highlighting how psychology, education, and creativity are configured on instrumentality and inequality as well as how the configuration normalizes people. The story generally follows a chronological order; however, it might be worth noticing that the events are not strictly arranged in a linear chronology of when they occurred, sectional plot summaries are inserted, and all the theories of creativity made present in the story are still in currency in different spatial contexts. The portrayed transformations are not objective and comprehensive representations of facts but rhetorical constructions grounded in the examined artifacts and aimed at outlining possibilities of subjectivity.

Broad Shifts in Western Thought on Creativity

It is perhaps misleading to speak about creativity before modern psychology. Kristeller (1983) speculated that creativity, an abstract noun, entered the standard English vocabulary between 1934 and 1961. 'Creativity' is derived from other words such as 'to create' and 'creative' that have a much earlier history. Kristeller (1983) roughly described the three different contexts of Western thought where 'to create' and its equivalents and derivatives are found as "theological, artistic, and broadly human" (p. 106). Presenting a background for and an introduction to psychology's scientification of creativity, this section makes the case that creativity is not a given human attribute but a social construction that shifts over time and across contexts in Western thought.

In a theological context, the ability to create was attributed exclusively to God. The Greek language has only a single word for creating and making (*poiein*). For the ancient Greeks, the divine powers created the world by giving shape to a formless matter that preceded their action. The analogy between divine creation and human making was sometimes possible. Humans could create great artworks; nevertheless, creative achievement, genius, was a matter of divine inspiration. For Plato, "the poet is an airy thing, a winged and a holy thing; and he cannot make poetry until he becomes inspired and goes out of his senses and no mind is left in him" (Bailin, 1988, p. 1). Socrates's call on his demon (*daimon*) was a way to ask for divine inspiration. The creator was void of any talent, while the demonic intervention filled the poet and alike with a divine inspiration reflecting the gods (Kyaga, 2015). Genius was the spirit of a place, the daimon that guides and governs an individual through life. The Latin Christian language had two separate words 'creare' and 'facere' that established the division between a divine creation and a human making. On the basis of the account of divine creation in the Old Testament, St.

Augustine developed the doctrine that God created the world not out of a preexisting matter but out of nothing—*ex nihilo*, followed by all later Christian theologians (Kristeller, 1983). Consequently, a human artist producing a work out of materials given to him could not be remotely compared with the divine creator. This tradition of understanding could be seen in the well-known saying of George Balanchine, the eminent twentieth-century choreographer who reinvented ballet, "I am not creative. Only God creates; I compose" (Blumenfeld-Jones, 2011, p. 30).

In Roman times and during the Middle Ages, little attention was dedicated to creative individuals. The Renaissance brought back a strong interest in persons with exceptional creative abilities. Runco and Albert (2010) noticed that at this historical moment the divine attribute of great artists and artisans started being recognized as their own abilities. The change was subtle, and human artists and artisans' creative power remained a matter of divinity. The Renaissance stressed the ability to imitate established masters and nature. Analogous to the Greek ancients' view, the Renaissance *genio* was often considered in terms of melancholia, qualities associated with which were eccentricity, sensitivity, moodiness and, to some extent, solitariness (Kyaga, 2015).

While the Enlightenment, marked by philosophical debates on reason since the late seventeenth century, was reaching its own critical mass in the eighteenth century, natural science as an institutionalized philosophy and methodology was taking shape. The Enlightenment introduced a new notion of genius, the rational genius, someone who could wisely balance mental forces into harmony and displayed ground-breaking novelty (Kyaga, 2015). The emphasis on rational judgment in creative power was criticized with the stirrings of the Romantic Movement in the late eighteenth century, which was deemed to signify a real turning point in

Western thinking on what we now call creativity (Kristeller, 1983). It was not until the Romantic Movement that poets and artists came to be considered as creators par excellence, and this notion has run strong through the entire nineteenth century, down to the twentieth century, and up to now. For the first time, poetry, music, and the visual arts came together as fine arts, the subject of a new separate discipline, aesthetics. The movement was part of broader social transformations to free modern man (and woman) from traditions and restrictions. During the late eighteenth century the Bible underwent a radical shift in interpretation. It became a cultural artifact. While formal religion declined, the status of the Bible as a literary and aesthetic model rose to new heights (Prickett, 1996). Rancière (2010b) characterized the new appearances in the arts at this historical moment as the staging of equality. The new forms and contents broke the rules of making definite forms of feeling and expression fit definite characters and subject matters. Kings and religious notables were no longer regarded above commoners as the proper subject matter of art. The concept of the genius artist was, however, an elitist notion. The Romantic Movement extolled the artist above all other human beings. The artist was guided no longer by rules or by reason but by feeling and sentiment, intuition and imagination; he produced what was novel and original, and at the point of his highest achievement he was a genius. It is only in the high Romantic period (in German expressly called *Genieperiod*) that the cult of genius as an exceptional quality and then the genius as an exceptional individual became dominant (Pope, 2005). By the end of the eighteenth century the genius came to be thought of as the highest human type, replacing such earlier ideal type as the hero, the saint, and the *uomo universale*[11] and so on (Murray, 1989). Still, humanist genius radiated a mystical aura. At the same time, the emphasis on imagination over rationality distanced the genius artist from the

[11] *Uomo universale* is an ideal that developed in Renaissance Italy from the notion expressed by one of its most accomplished representatives, Leon Battista Alberti (1404–72), that "a man can do all things if he will."

mental qualities primarily associated with sanity and made an opening for the association between genius and clinical madness (Kyaga, 2015). From the middle of the nineteenth century, the rise of the psychiatric field initiated a medical approach to the question of genius and madness, which could be considered the springboard for the 'out of one's mind' approach to creativity in psychology.

Parallel with the development of modern art was the institutionalization of social sciences, among which psychology was a prominent case. The 'out of one mind' approach to creativity in psychology assumes that the power of genius lies outside ordinary conscious thought and madness is one possible source. We should perhaps recall that creativity was not the term that floated in psychological discourses in the nineteenth century and the early twentieth century. During this period, discourses of 'the creative child' emerged and influenced psychology and education. The creative in these discourses do not mean genius or the power to compose new objects from existing materials. It referred to the child's life as it unfolds. This life is either controlled by prewritten codes or constructed in the flux of experience. Creativity officially entered US psychology in the later part of the twentieth century. Psychologists and historians have unanimously referred to Joy Paul Guilford's presidential address at the annual meeting of the American Psychological Association in 1949 as the event that started psychology's serious investment in creativity research. At that time, that the ability to create is not limited to artists or writers but extends to all areas of human activity and endeavor already made common sense. Guilford's works helped establish the psychometrics of creativity, the most influential stream of creativity research in the twentieth century. This tradition assumes that creativity is out-of-the-box thinking, but it is a common human trait, present in every human and varying across individuals. Toward the twenty first century, the psychometrics of creativity has

been increasingly challenged by the cognitive view of creativity, whose main assumption is that creativity is just ordinary thinking. Among the multiple streams of research on creativity in human psychology, the psychometric and cognitive approaches have been most concerned about education.

The theories of divine creation, genius, and the creative child are still in use today, and I also refer to them as theories of creativity. Not an exhaustive list of all the theories of creativity in the history of Western thought, the variety of theories of creativity I have touched upon entangle both continuities and discontinuities. Creativity, in our contemporary understanding, generally denotes the phenomenon whereby something valuable or/and new exists or is formed. Indeed, psychologists have generally arrived at a standard definition of creativity as an abstract quality: the combination of originality (novelty) and effectiveness. The second criterion of creativity has been put in a variety of terms, including usefulness, appropriateness, fitness, adaptation to reality, acceptability, etc. (Runco & Jaeger, 2012). Usefulness and task appropriateness appear most frequently used terms. They narrow creativity to instrumental reasoning. In fact, an important contribution of psychology has been to extend creativity to functional objects, and the evaluation of creative products in psychology is focused to functional creativity. Recent attempts to revise criteria of creativity have added an aesthetic dimension to creativity so that creativity also includes the quality of elegance, wholeness or beauty (Miller, 1992; Haller et al, 2011). Originality is consistently understood as ‘novel’, ‘new’, ‘never been done before’. It is possible to trace originality in the multiple theories of creativity. In the theories of divine creation, the origin is the creation of the world by God/gods. ‘Original’, up to the mid-18th century, carried the primary sense of ‘going back to the origin’, ‘ancient’, and ‘primary’. Reviewing the range of creativity theories in Western thought from the standpoint of

present has also let me imagine the possibility to detach creativity from the process of creation and attend to it as it appears in the flux of life.

Before Guilford's Presidential Address: The Creative Child and IQ Testing

I studied psychology because I enjoyed doing a number of psychological tests. Creativity tests stimulated my imagination and gave me moments of surprise. However, scientific discourses order psychology be valued for its function of explaining and solving human problems instead of the experience of engaging with it. Central to the establishment of modern psychology was a rhetorical strategy aiming to liberate the discipline from philosophy or medicine. Psychology's struggle for autonomy and authority has accentuated the importance of disciplinary functionality. To construct a professional identity, psychology employs instrumental conventions of objectivity. It makes a distinction between trained psychologists and so-called naive observers, dividing not only people into experts and non-experts but also and the self into professional and nonprofessional. The discipline has generated methodological instruments that reconstitute the human, selfhood, and social relations. Psychology and educational practice are linked together in the use of metaphors and methods of prediction and control. The swirling together of psychology and education broadcasts propaganda of instrumentality. By instrumentality, I refer to a mentality that invokes a conceptual setup of means and ends and a humanist belief in human agency relative to the capacity to use instruments to understand and solve problems. Educational psychology has invented instrumental creativity, which did not exist in creationism and romanticism. This section recounts some of the events in the establishment of psychology that would possibly enrich our coming into terms with the hard versions of instrumental creativity produced by educational psychology in the later part of the twentieth century.

Recent historiography of psychology claims that psychology emerged as a distinct subject within philosophy and pedagogy in Europe since the seventeenth century but its institutionalization and hence visibility as a separate discipline did not come forth until the end of the nineteenth century, enabled by "the widespread introduction of so-called physiological or natural scientific psychological discourse in the middle third of the nineteenth century and the institutionalization of laboratory instruction on the model recently established in the natural sciences in the last third" (Ash, 2003, p.253). Germany is widely considered the homeland of scientific psychology, but the growth of the science in the US has been striking. The founding of the American Psychological Association (APA) in1892 preceded that of the American Philosophical Association in1904. By1910, there were more psychological laboratories in the US than there were universities in Germany (Ash, 2003). By the end of the twentieth century, there were over 100,000 psychologists in professional associations worldwide, more than two-thirds of whom were Americans,[12] which could not be predicted right at the beginning of psychology (Ash, 2003).

The institutionalization of modern psychology in the US occurred while modern education was taking shape as a nationalist project. The common school movement, which made free schooling available through some of the elementary grades, gained strength across the North. Horace Mann's reforms established the conception that education should be universal, non-sectarian, free, and that its aims should be social efficiency, civic virtue, and character. In its early establishment, psychology was not the central source of theories and instruments for education, but education, as a practical field, was central to psychology. Ash (2003) mentioned

[12] Established by twenty-six pioneers in 1892, the American Psychological Association (APA) had grown to over 83,000members a century later.

two formative forces of psychology in the US. One was the indigenous tradition of teaching psychology as part of the required philosophy courses taught by college presidents, which was oriented toward moral issues and useful knowledge. The other was evolutionary thinking of Darwin and Spencer, which emphasized biological functions versus mental faculties and hence led to an interest in development, the psychology of the child and animals. Influenced by both the forces, John Dewey proposed the notion of the creative child.

Dewey's theory of the creative child could be seen as a response to the Prussian pedagogue Friedrich Fröbel's theory of the creative child and its cultivation through play (Nelson, 2014). Fröbel, the founder of the Kindergarten, became a hero of American education as the kindergarten movement took root and transformed in the US. Fröbel understood the child's creative development as a process of potential unfolding in ways aligning with divine providence and the destinies of the individual and nation as in the rhetoric of American kindergarten reformers (Nelson, 2014). Fröbel likened the growth of the child to the growth of a tree, to be tended and cared for. 'Kindergarten' literally means children's garden, and 'kindergartener' literally child gardener. The kindergartener's role is not to impose restraints on the natural evolution of the child, but to draw out the child's own creative self-activity. Fröbel's educational philosophy was novel in that it placed the child's self-activity at the center of the educational process. In the aftermath of the Civil War, the idea of rescuing the child and the nation through creative activity, which combined a pre-existing religious view of salvation with secular preoccupations about the crisis of poverty, society, economy, and national reconstruction, was seen to have special relevance (Nelson, 2014).

Dewey proposed a fundamental shift away from the creative as ideal perfection that mimics theological creation. Reconceived as the reconstruction of experience in a world of flux,

Dewey's creativity also eschewed the mystical and abstract ideologies of romanticism. Dewey did not consider creativity as a problem separate from other problems but as an aspect potentially present in all human actions and experiences. Creativity was associated with means and ends in a concrete material world. It was an active reshaping of the world to suit the purposes of life. Dewey's instrumentalism required evaluation of not only means but also ends, an advocacy of "a constitutive instrumentality in which the means were integral to the ends sought" (Eldridge, 2002, p. 269). Dewey offered several examples: "Paints and skill in manipulative arrangement are means of a picture as end, because the picture is their assemblage and organization. Tones and susceptibility of the ear when properly interacting are the means of music, because they constitute, make, are, music.... A good political constitution, honest police-system, and competent judiciary, are means of the prosperous life of the community because they are integrated portions of that life" (Dewey, 1929, p. 367). Dewey treated art as experience and creativity as the growth of the child rather than the exceptional quality of the art works, though the artworks are the creative expressions of the child. The ability that creativity requires was intelligence, 'creative intelligence'. To be intelligent is to be able to choose from among alternative causal scenarios one that best achieves a desirable end, one in which the means are constitutive of the end.

While Fröbel presented a variant of pre-Darwinian evolutionary theory, Dewey's theory of the creative child could be seen as a particular working out of the implications of Darwin, whose theories showed that humanity was the product of chance collisions over millennia and brought concrete things to the center of ideation. Philosophy was yet to confront the role of contingency and chance, or grasp the makeshift and haphazard nature of human experience. Social sciences were making efforts to tame chance and generate generalizable rules. Dewey's

philosophy of experience slipped away from scientific psychology. Significant thinkers who took up the challenge posed by Darwin's hypothesis tried to harmonize Darwinian concepts with the pre-Darwinian worldview (Nelson, 2014). In contrast to Darwin's theory of evolution, Spencer's theory reinforced teleology, holding that evolution has a direction and an end-point, the attainment of a final state of equilibrium. Spencer claimed that man's mind had evolved from the simple automatic responses of lower animals to the process of reasoning in the thinking man. He also proposed that society was the product of change from lower to higher forms, just as in the theory of biological evolution, the lowest forms of life are said to be evolving into higher forms. Many psychologists became interested in evolutionary theories because the emphasis on biological functions versus mental faculties was conducive to experimental methods that distinguished psychology from philosophy. The theories granted psychologists so inclined the authority to intervene in social practice as agents of species betterment (eugenics).

In the early establishment of psychology, the creators of the new experimental psychology, with their heavy brass instruments for the controlled presentation of stimuli and for measuring reaction times, took part in the culture of precision characteristic of nineteenth-century physics and physiology, and thus acquired scientific respectability (Ash, 2003). The instruments reconstituted the object to which their efforts were addressed. For example, what had been mental and moral capacities became psychical functions; and the sensing, perceiving, conscious mind became an instrument that functioned, or failed to function, in a measurably 'normal' way (Ash, 2003, p. 260). Subject matters were restricted to that which could be addressed by the natural scientific methods and apparatuses then available, such as psychophysics, sensory psychology, attention span, and retention. Psychology's attention to education led to the development of new methodological instruments, such as intelligence tests

and personality inventories, that have had significant feedback effects on research (Ash, 2003). The case of intelligence testing illustrates how psychology was a distinct tool for education and how statistics was mobilized so as to measure ideal and abstract concepts. It has left tremendous legacy for educational psychology's inventions of creativity.

Binet's tests were not widely accepted in France. They, however, quickly became popular in the US after Henry Goddard, director of a training school for so-called feeble-minded children, propagated them as instruments of human betterment. After the success of Goddard and others, Lewis Terman revised the Binet–Simon scale for use in American schools in1915 and later extended it to studies of the gifted. Terman's linking of 'mental age' to school class years[13] proved well suited to American schools in their role as sorters of a socially and ethnically diverse population. During World War I, intelligence testing was used for the sorting of the personnel in the military. With the spread of intelligence tests, intelligence became not intellectual or problem-solving capacity alone, but a sum of skills and (presumably hereditary) aptitudes for certain kinds of learning. Surprisingly, the route of application ran not from the 'normal' to the 'pathological', but rather from socially marginal populations, the so-called feeble-minded and schoolchildren, to 'normal' adults. Intelligence testing popularized the concept of the average person, quantifiable human talents and relations, laying the foundations for the establishment of the psychometrics of creativity in 1950s. The tests were designed based on a system of assumptions that could be called 'bell curve thinking'. Fendler's (2006, 2014a) and Fendler and Muzaffar's (2008) historical studies of the bell curve demonstrated that scientific inventions such

[13] One important technique Mann learned in Prussia and first introduced in Massachusetts in 1848 was age grading. Students were assigned by age to different grades and progressed through them, regardless of differences of aptitude. Previously, schools had often been single groups of students with ages ranging from 6 to 14 years. With the introduction of age grading, multi-aged classrooms all but disappeared.

as norm-referenced tests are laden with religious assumptions. The bell curve was not discovered through empirical inference. Adolphe Quetelet, a Belgian statistician and astronomer, who believed that mathematical regularity was a sign of moral perfection, assumed that a universe created by God would not be chaotic or asymmetrical. He supposed that empirical phenomena (including tides, births, and crimes) must be distributed in a bell curve, and it was the task of social scientists to create the statistical mechanisms that would make divine regularity apparent. In the 1840s, Quetelet posited the bell curve as a priori model for data distribution in the empirical world. In England, Francis Galton turned Quetelet's formulation to novel use. Galton's innovation in 1869, which he called 'statistics by intercomparison', claimed to be able to measure talent as easily as height. The argument rested entirely on the logic of analogy. Where Quetelet had used the occurrence of a normal curve to demonstrate homogeneity, Galton based a dissection of the population upon it, distinguishing between men's abilities on a numerical scale. Galton's argument by analogy and his studies of 'mental excellence' helped make it possible to consider previously immeasurable qualities as discrete entities that could be counted and graphed. 'Binet testing' relied on Galton's innovation.

After the mass use of intelligence tests by the US Army during World War I, Binet testing continued to fuel the expansion of professional psychology in both the US. The use of quantitative assessment and of Galtonian group data in basic research and professional practice spread rapidly, primarily because the products created supported the classifying functions required by administrators – initially in schools, and later also in industry and social service agencies. As a result of successful professionalization, apart from finding other consumers of psychological expertise such as advertising, industry, the military, and medicine, psychologists began to privilege 'basic' over 'applied' work. Psychologists' ties to education were loosened,

though they sustained more interest in education than their colleagues in other social sciences (Reuben, 2003). Psychology kept expanding to a variety of social spheres. The years after World War II witnessed explosive expansion and differentiation in both the scientific and professional realms.[14] Education was no longer preeminent within psychology. Nevertheless, education has ingrained itself in psychology. Education embraced the language of psychology even as an attempt to establish its autonomy. The scientific methods developed in psychology have been adopted to establish criteria for educational research. On the one hand, education has every reason to become, as far as possible, an empirical-analytical science (in terms of the formulation of inductive laws) on its own; on the other hand, the adherence to the principles of psychology, a successful, generally accepted human science, could be just as prestigious (Depapae, 2013). Another display of the astounding power of psychology over education is how it has framed school subjects. Popkewitz (2002) used the term 'alchemy' for the transformation of all the disciplines of the sciences, social sciences, and humanities into psychological terms as they become school subjects. Testing and sorting, based on psychologists' research on group and individual mental differences, has shaped the organization of most American public schools until now. The superimposition psychology onto pedagogical practices focuses on the administration of the child (Popkewitz, 2002). While educational psychology suffers from relatively low status within the discipline of psychology itself (Fendler, 2012), as a discourse, it has permeated the society, especially through the educationalization of social problems and the pedagogicalization of the society. When creativity was posed as a source of social benefits in the Cold War years, education was assumed responsible for turning out creative people. Psychology found this an opportunity to expand its influence, and education kept resorting to the alchemy of psychology.

[14] An illustration is the establishment of a divisional structure within the American Psychological Association (APA) in 1947.

The Psychometrics of Creativity: Norming Deviations

Speaking as their new president at the American Psychological Association in 1949, Guilford proposed that creativity was essential for human society and research in creativity harbored possibilities of great benefit for society. In his speech, he asked: "Why is there so little apparent correlation between education and creative productiveness? Why do we not produce a larger number of creative geniuses than we do, under supposedly enlightened, modern educational practices?" (Guilford, 1987, p. 34). In describing the social benefits of creativity and creativity research, Guilford (1987) emphasized "the enormous economic value of new ideas." Making no reference to the arts, he spoke of creativity as a quality searched for by "employers of scientific and technical personnel" (Guilford, 1987, p. 35). The combination of creativity, education, and economic benefits is maintained in the neoliberal discourse of creativity in education in the twenty first century. Guilford's language does not evoke a strong sense of emergency for creativity in education as what could be felt in later creativity crisis arguments. The alarming situation was the lack of creativity research in psychology. The subsequent growth in creativity studies was largely attributed to a Cold War political agenda to beat the Soviet Union in a race for technological supremacy, especially in space exploration, as Sawyer pointed out: "Guilford's comments seemed remarkably prescient when the Soviets beat the Americans into orbit with the launch of Sputnik in October 1957. The U.S. response was a mobilization in the schools to attempt to identify and nurture scientific talent and creativity" (Sawyer, 2012, p. 37).

Guilford's works set the psychometrics of creativity on motion. This research stream investigates the nature of the thinking process involved in creativity (e.g. Guilford's own factorial analysis of cognitive traits), identifies and describes creative individuals (e.g. Torrance's works

on measuring creative thinking), and analyzes personality and environmental determinants (e.g. MacKinnon and Barron) (Bailin, 1989). Creativity involves that which is new, divergent, and disconnected with the usual, the ordinary, and the accepted. The psychometrics of creativity focuses on the creative process instead of extraordinary achievement. The creative process is identified by how it differs from ordinary thinking, which is characterized by logic, habit, rigidity, strict judgment, and the adherence to previously established rules and patterns. Creative thinking is marked by leaps of imagination, irrational processes, rule-breaking, the suspension of judgment, and the spontaneous generation of ideas. The psychometric view assumes that some individuals will be better able to engage in this process than others because of their cognitive and personality traits. Thus, creativity is primarily a characteristic of persons, irrespective of specific achievements. Psychometrics identifies people who exhibit observable exceptional behaviors, distinguishing them from who do not. At the same time, it promotes the assumption that creativity is a latent trait in every person. The creativity tests are designed for ordinary people rather than eminent creators whose achievements have been well recognized. The psychometrics of creativity forms a new kind of person: the creative individual whose creativity is calculable on the basis of test results rather than public recognition. The tests are useful because with precision they capture the kind of creativity that tends to be neglected.

Creativity testing is analogous to intelligence testing and guided by the assumption that creativity and intelligence are largely unrelated. Creative thinking has been widely described in terms of divergent thinking, a term introduced by Guilford in 1950, defined as thinking of many possible responses to a given question. The four components of divergent production are fluency (generating many ideas), flexibility (generating different types of ideas from different perspectives), originality (generating unusual ideas), and elaboration (adding to ideas to improve

them). Guilford assumed divergent thinking abilities are inherent to creative people. Although we are all capable of divergent thinking, the genius possesses divergent-thinking capacities to an extreme degree. In keeping with Guilford's assumptions, Torrance and his associates designed divergent thinking tests that later became the most well-known and widely used standardized assessments of creativity. The Torrance Tests of Creative Thinking (TTCT), first developed in 1966, include items that resemble Guilford's exemplary exercises:

> A. Suppose that humans suddenly began to be born with six fingers on each hand, instead of five. List all the consequences that you can that would arise. (Give yourself 5 minutes.)
>
> B. List all the white edible things that you can (3 minutes).
>
> C. List all the uses you can think of for a brick (3 minutes).
>
> (Weisberg, 2012, p. 12)

Other creative thinking tests assume the role of convergent thinking and symbolic thinking. A close look at the creative thinking tests reveals that the kinds of thinking they require could be labeled 'out of the box thinking'. For example, Mednick's 1962 Remote Associates Test (RAT) theorized that creative ideas results from the bringing together of remote, unrelated ideas (Starko, 2010). To study creativity from this point of view, the RAT depends on an association between three words presented to the respondent with a single word intended as a correct response. For instance, the words 'birthday', 'surprise', and 'line' all can be associated with 'party'. Divergent thinking is used in the search for a correct response, but the final arrival at a correct response necessitates convergent thinking. Interested in the symbolic scope of creativity, Barron (1988) constructed an instrument to measure the ability to make original and apt transformation of a given image, the Symbolic Equivalence Test (SET).

Table 1: Open-ended activities of the TTCT.

Seven Word-based Activities of the TTCT – Verbal	
Asking	list all the questions the participant can think of about a given picture (e.g. an elf-like form observing his reflection in the water)
Guessing Causes	state as many causes as possible causes of the occurrence in the picture given in the Asking task
Guessing Consequences	mention possible consequences of the situation pictured in the Asking task
Product Improvement	list possible improvements for a product (e.g. a stuffed toy elephant)
Unusual Uses	list unusual uses for common objects (e.g. cardboard boxes)
Unusual Questions	suggest unusual questions about the objects mentioned in the Unusual Uses task
Just Suppose	describe all the things that might happen if an improbable situation (clouds having strings attached that hang down to the earth) should occur
Three Pictured-based Activities of the TTCT – Figural	
Picture Construction	draw something clever and unusual using an egg shaped figure on a piece of paper as the basis for the picture
Incomplete Figures	stretch presented variety of abstract lines or designs into unusual pictures or objects
Parallel Lines	essentially the same except that all the line forms are pairs of straight, parallel lines

Table 2*:* An example of SET items: Stimulus image, admissible responses, and scoring of responses (Based on Barron, 1988, p. 89).

Stimulus image: A candle burning low

Admissible responses:	
Life ebbing away	(scored 1)
A basin of water emptying down a drain	(scored 2)
The last drops of coffee going through a filter	(scored 3)
The last pages of a faded book	(scored 4)
The last hand in a gambler's last card game	(scored 5)

Out-of-the-box-thinking is common, domain-general, but it asks for unexpected or remote connections, which intelligence and academic tests do not usually require. The psychometrics of creativity assumes creative thinking is a special kind of thinking. It has made consistent efforts to define and validate creativity as a construct distinct from intelligence. A number of research findings have suggested that a threshold exists in the relationship between creativity and intelligence – both constructs are moderately positively correlated up to an IQ of 120. Above this threshold of an IQ of 120, if there is a relationship at all, it is small and weak (Preckel et al., 2006).

The psychometric tradition has also brought personality components into analyses of creativity. Guilford proposed that creativity was part of the personality of the person. Guilford's view is called a confluence view of creativity, where it is assumed that several factors must come together to produce creativity. Studies of how personality characteristics might play a role in the creative process have identified lists of traits usually associated with the creative personality such as openness to experience, drive, ambition, independence, and hostility (Weisberg, 2012).

While creative thinking tests produced by psychometrics have never attained a status comparable to aptitude and academic progress/achievement tests that assess intelligence or knowledge, they have created exercises that could be used to practice thinking. Once creativity is turned into analyzable skills, the teaching and learning of creativity becomes possible. Creativity research has had considerable impact on educational theory and practice as it promises. The fostering of creativity has become a fundamental educational goal. The TTCT influenced western educational methods in the decades in which they were in the ascendant. Torrance himself claimed that results from creativity studies had engendered "truly revolutionary changes in educational objectives, curriculums, instruments for assessing mental growth and educational achievement, instructional procedures, counseling and guidance procedures, supervisory and administrative practices, and even in school building planning" (Torrance, 1963, p. 3). The impact of the psychometric tradition of creativity has gone far beyond the confines of academic research and the school to assert its presence in business and everyday life games.

In business, heuristic theories of creativity were invented to guide the creative process in the boom of creativity training. Up to now, commercial guidelines for creativity in business predominantly advocate for the out-of-the-box-thinking view of creativity. Practical methods for improving creativity have contributed significantly to the range of psychological theories of creativity and become a research problem for academic psychology. Most popular is perhaps Alex Osborn's brainstorming. Brainstorming is a procedure designed to alternate between a controlled process and the generation of unpredictable ideas as well as between individual and group thinking. It is based on an assumption that a permissive atmosphere will encourage its members to present half-baked ideas or work together on finding the alternative solutions to a given problem. The procedure allows the group to alternate between phases in which

associations, speculations, or strange suggestions are welcomed and a next step in which the group moves to the selection of the best ideas and engages in critical evaluation. Personal contributions that may look strange, unfamiliar, or even irrelevant at first can morph into very fruitful suggestions as the result of collective deliberation. Osborn's practical concerns have also contributed to the establishment of creativity studies (Phan, 2012b). In 1954, Osborn founded the Creative Education Foundation. A year later, the first Creative Problem Solving Institute (CPSI) was held at the State University of New York at Buffalo. Through Osborn's work, the Center of Studies in Creativity was formed at the Buffalo State College. At Buffalo State College, an undergraduate curriculum for a major in creativity and innovation was approved in 1974, and the graduate program for a Master of Science in creativity and innovation succeeded in 1975.

Ogata (2013) has recently argued that Cold War ideas about creativity were also perpetuated through the manufacture of toys, picture books, television shows, architecture and interior design. After many decades, the exercise of thinking outside the box remains attractive. As a Vietnamese student in the beginning of the twenty first century, I was affected by American psychometrics of creativity. I studied the psychological tests of creative thinking with an aim to design computer games and reality game shows that promote creative thinking, a dream I deserted for other pursuits. I have also played with generating poems from questions that resemble creative thinking tests items. Recently, I was invited, by a child and her mom, to play the game Say Anything. It took me so much time to respond to the question "What is the most ridiculous thing to do in public?"

In summary, the psychometric tradition of creativity conceives creativity as a distinguished mode of thinking or style of personality. It valorizes discontinuity, including deviations from norms, but creativity is established based on norms and becomes a norm. From

the psychometric perspective, the creative personality is a stable configuration of certain internal human traits such as divergent thinking and openness to experience. The psychometric view of creativity makes visible a certain kind of person that should be treasured by education, particularly the school system. It is also worth noticing that the psychometrics of creativity was invented to recognize a more diverse range of human talents. Creativity was offered as an alternative to intelligence. The tests of divergent thinking appreciate divergence. Many researchers, especially Torrance, articulated concerns for diversification and social justice. While the psychometrics of creativity, using techniques of statistics, arranges individuals in a hierarchy, reinforces stereotyping with reification in sampling and representation, it has produced diverse effects, some of which exceed the scientific logic of psychology.

Cognitive Approach to Creativity: The Rise of Learning

Many criticisms have been leveled at psychometric procedures. Divergent thinking, from a cognitive perspective, is too broad a construct to provide a precise characterization of the processes that underlie creative accomplishments (Ward, 2007). Moreover, in many cases, extraordinary processes and personalities do not explain accomplishments (Weisberg, 1999). Also, the move away from creative achievements can be misleading for education (Bailin, 1989). The creative cognition approach views creativity as the generation of novel and appropriate products through the application of basic cognitive processes to existing knowledge structures. The approach frames creativity in terms of means-end problem solving. It relies on converging evidence from anecdotal accounts of creativity and tightly controlled laboratory studies designed to examine the processes that are assumed to operate in those anecdotes (Ward, 2007). Some psychologists exhibit a contrarian style of argument, denouncing the role of discontinuity and chance in the creative process and emphasizing outstanding public achievement. Others direct

their efforts to ordinary cognitive processes and achievements without rejecting the psychometric view of creativity. While cognitive psychologists flatten the creative process and return the quality of creativity to the end achievement, their attention to micro-achievements has made learning a creative process. The greatest success of the creative cognition approach has been the popularity of constructivism a theory of learning in education.

"We do not need to have special theories to explain creative thinking. Rather, we simply need a complete theory of thinking" Weisberg (1999, p. 249) contended. Weisberg has been among the most fervent opponents of the out-of-the-box-thinking approach. Interested in outstanding public achievements, Weisberg, however, strongly concluded that there is nothing extraordinary about the cognitive processes or personality characteristics of creative geniuses. For him, a new discovery/invention is no more than a restatement of existing knowledge or a reshuffling of existing elements (Weisberg, 1993). Creative achievements have been characterized by emotional engagement and reactions, but emotional elements and processes may not be brought about by exotic mechanism (Weisberg, 2012). In favor of a unifying theory, Weisberg (2012, 2015) argued that it is unnecessary to introduce value into the definition of creativity. He used the case of the paintings of the Impressionists, which were not valued until later generations, to question the usefulness of value as a criterion in defining creativity. According to Weisberg, if we used value in the definition of creativity, we would say the Impressionists were first not creative and then became creative, which does not sound right to Weisberg. Weisberg suggested that if a novel scientific theory is rejected as useless, it is still creative. In psychology, the interest in the criterion of value in defining creativity is motivated by the desire to distinguish creativity from what one could call 'mere novelty'. Weisberg (2012) assumed that the problem could be solved by including intention as part of the definition of

creativity. Viewing creativity as intentional novelty ignores the fact that many discoveries and inventions result from chance. It is possible to argue that even in cases where creativity emerges from chance, the creators have been able to redirect their intentions. However, favoring intention over chance does not serve to further our understanding of the creative process but enhance the possibility of controlling creativity. Weisberg (2015) argued: "For psychologists to regain control over the study of creativity, we have to remove the subjective component of the subject matter" (p. 119). To explain world-class achievement, Weisberg mobilized the role of expertise, 'the rule of ten years'. In a study of chess masters' ability to solve the problem of picking a good move during a chess game, Chase and Simon (1973) concluded that 10 years' worth of intensive study of chess is necessary to provide the expertise to enable a player to perform at a world-class level. The 10-year rule has been found relevant to creative achievement in many domains: even the most talented individuals in musical composition, painting, and poetry required many years of commitment to their discipline before they were able to perform at world-class levels. Recent research on expertise has raised the possibility that deliberate practice is the critical factor in reaching world-class levels of performance in many domains.

The collapse of different styles of thinking and the advocacy for intentionality and deliberate practice in Weisberg's arguments makes creativity relevant to all people who want to succeed socially, which resonates with, even becomes identical with, the meritocratic pitch of education as a way for social mobility. Creativity, while defined as intentional novelty, gets associated with significance rather than novelty. Significance is usually measured by the extent to which a product aligns with the majority's perception. In the field of psychology, creative scholars are those whose works are frequently cited.

There has been also a strand in cognitive psychology arguing for recognizing the diversity of creativities. One example is Kaufman and Beghetto's (2009) Four-C model of creativity. The model was proposed in the context where the distinction between little-c (everyday creativity) and Big-C (legendary creativity) has been common. Kaufman and Beghetto added two categories of creativity, mini-c and Pro-c creativity. Mini-c creativity is defined as any novel and personally meaningful interpretation of experiences, actions, and events. For Beghetto (2013), the mini-c category helps differentiate the subjective and objective forms of little-c creativity. It makes room for the more personal or subjective forms of creativity. Thus, little-c creativity could be narrowed to the forms of creativity that have been externally validated. For instance, a young culinary student's new and personally meaningful insights about how to combine ingredients, textures, and flavors would be an example of mini-c creativity, whereas a culinary hobbyist whose original take on cooking is appreciated by friends and family would be an example of little-c creativity (Beghetto, 2013). Pro-c creativity represents professional-level expertise in a creative area that has progressed beyond little-c creativity but has not yet attained (and may never attain) the legendary status of Big-C creativity (Kaufman & Beghetto, 2009). The Four-C model of creativity helps illustrate how determinations of creativity can range from the immediate inner eye of the creator (as in the case of a child who discovers a painting technique that is only new and meaningful to him or her) to the future eyes of critics and connoisseurs who stand in judgment of creative contributions that span beyond spatial and temporal boundaries (as was the case with Vincent Van Gogh, whose creativity was not recognized during his own lifetime) (Beghetto, 2013). The model has been criticized by psychologists for overstating the differences in creative acts in categories (see Runco, 2014). In their response to the criticism, Beghetto and Kaufman (2015) argued that while reality is not

categorical, the categories are useful. The goal of the Four C model was not to invent a taxonomy upon which all creative actions could be sorted but to be used "a way of broadening conceptions of creativity and highlighting features that distinguish different levels of creative magnitude" (Beghetto & Kaufman, 2015, p. 240). At first, the Four C model may appear as characterizing four orders of creativity. Its authors' words explicitly confirm that these are just the four levels of the same nature of creativity.

Kaufman and Beghetto's articulation of mini-c helps us makes sense of the discourse of creative learning. Mini-c creativity represents the creative insights, ideas, and interpretations that occur any time we learn something new and meaningful. Central to mini-c creativity is the "process of constructing personal knowledge and understanding within a particular social cultural context" (Kaufman & Beghetto, 2009, p. 3). This constructive process is illustrated in the following example:

> Consider a child who is learning how to paint. She constructs her understanding of shading techniques as a result of a new and personally meaningful insight about how the combination of brush strokes and different hues of color create an illusion of shaded figures. In this example, the child is constructing a personal understanding of shading techniques on the basis of her mini-c creative insights. Recall that these insights may be new and meaningful only to the child. Moreover, the child's resulting understanding of shading techniques may be quite different from what is understood and done by more accomplished painters. Still, for this child, learning and creativity are working in tandem as she constructs an understanding of how to shade objects in her paintings. (Beghetto, 2013, p. 35)

The creative cognition approach has given rise to constructivism and the reign of learning in contemporary educational discourses. Contemporary constructivist views of learning recognize that "learning is always a creative process" (Sawyer, 2012, p. 395). Constructivist learning of academic-subject matter is not meant to connote unguided learning experiences. However, from a constructivist perspective, putting students in an unguided learning situation does not mean that they would not learn anything, but rather that they likely would construct an understanding of the experience that might be very different from the teacher's imagination. Cognitive psychologists have successfully established constructivism as a dominant learning theory by the end of the twentieth century. It is commonly argued that curricula should be designed according to principles of constructivist learning theories to maximize learning (Fendler, 2012). Constructivism aligns with the entrepreneurial trend in educational discourses. It has resulted in simultaneous attention to the learner and the acquisition of knowledge and skills. Constructivism goes with the discourses of 'differentiated instruction', 'the whole child' and 'universal design', those that appreciate learning differences. At the same time, since cognitive psychology turns creative thinking into ordinary thinking and shifts the locus of creativity to the product, the learning process is less important than the learning outcomes. Consequently, the cognitive approach to creativity has been supporting outcome based education at the expense of ignoring differences in the learning process. Creativity and standards become compatible.

Cognitive psychologists are consistent in arguing that there is only one order of creativity and in that order there are different levels of creativity. The hierarchical order of creativity established by the cognitive tradition of creativity encompasses every act of thinking. The creative personality is either in the process of learning or has attained expertise and social success. If education for creativity is to help students learn and achieve what they have not

achieved, students are always deficient in creativity. The psychometric perspective allows students to be seen as creative personalities. For example, a teacher who is helping a student who is open to experience on the way to creative achievement may intervene in aspects other than the student's openness to experience, which is an aspect of creativity the student has already had and might not be deficient in.

The Place of Educational Psychology of Creativity in Schools

Creativity research in psychology has provided language for curriculum developers and teachers to think about incorporating creativity in their practice. The psychology of creativity's current position in education in general and in schools in particular could be seen from the relations between the psychometric view and the cognitive view as well as the relations between psychology and other disciplines that study education and creativity.

According to Beghetto (2013), there are three major perspectives for including creativity in the classroom. The first is the 'radical change' view that requires entirely rethinking the goals of the K–12 curriculum and the ways in which teachers teach. The second approach, the 'additive change', incorporates 'extra' or 'new' creativity activities to the current curriculum. Finally, the third perspective is the 'slight change' one. Let's imagine how psychologists position themselves in relation to the three perspectives.

I have never seen a scientific psychologist advocate for the first view. Scientific psychology has been formative in the current shape of the modern classroom. The out-of-the-box-thinking approach to creativity requires an additional set of educational purposes and methods. It suggests using the many methods and techniques available in the flood of practical books on creative thinking and harnessing them to teach a specific curriculum unit. A teacher may introduce, for instance, techniques like Osborn's brainstorming, de Bono's six hats or

Buzan's mind map. Each of these tools has some potential for encouraging students to overcome the routes of habitual thinking, and this ability can be linked to specific school-related problems. However, these methods and techniques, though charming and approachable as they may seem, do not have an easy relationship with school-related disciplinary contents. They do not seem to promote the basic skills and kinds of knowledge that is appreciated in most schools. Many of them were originally designed to facilitate creative thinking in industrial or organizational settings or in fields that have no direct relationship to the disciplines that are taught in schools or to acceptable educational objectives. The incorporation of out-of-the-box-thinking, while it might not necessitate structural transformation, is difficult. In response to the fervent advocacy of creativity in education, it has been pointed out that teachers and employers might be lying when they say they like creativity (Westby & Dawson, 1995; Mueller, Melwani, & Goncalo, 2011; Olien, 2013). People may only like creative accomplishments, not the disruptive ideas and behaviors that may lead to them. During the development of the psychology of creativity, the school retains its functions of qualification and socialization and is perceived as a conservative institution that hampers creativity.

Beghetto (2013) did not believe that asking teachers to make radical curricular changes or somehow add additional curricula to their existing curricular responsibilities is feasible or reasonable. He argued that slight, manageable changes are the best way to see real progress with respect to creativity in the classroom. From a cognitive view of creativity, Beghetto, Kaufman, and Baer's (2015) *Teaching for Creativity in the Common Core Classroom* argued that teaching to well-designed standards is completely consistent with teaching for creativity. Assuming creativity requires domain knowledge and skills, Baer and Garrett (2010) asserted that teaching for creativity calls for teachers' mastery of content knowledge. While knowledge is important to

facilitate creativity, the most prominent theme in teaching for creativity argues for appropriate attitudes such as flexibility and openness to experience and new ideas (Nickerson, 2010; Renzulli & De Wet, 2010), which are usually thought of as characteristics of creative persons from the psychometric point of view. The attitudes are necessary to make use of creative micromoments (Beghetto, 2013). In the classroom context, creative micromoments occur any time the curriculum takes an unexpected or surprising turn. Micromoments occur when the curriculum-as-planned meets the curriculum-as-lived. Creative teachers view such moments as opportunities for the emergence of creative learning. Beghetto's (2013) description of the following situation, where a first grade teacher who wants to quickly review a few basic math facts prior to introducing a more complex math activity, shows what it is like to teach for creativity.

> As part of the review, the teacher asks students to answer the known answer question of: "What does two plus two equal?" Multiple students correctly respond: "four!" Imagine if one student, Sophia, states: "Two plus two doesn't always equal four." Sophia's unexpected response represents a momentary rupture in the curriculum-as-planned. Instead of quickly reviewing math facts as the teacher intended, Sophia introduced a moment of uncertainty. The teacher is now confronted with a two-fold micromoment decision. The first decision for the teacher is how to respond to such an assertion: Do I spend class time attempting to understand Sophia's unexpected comment or do I quickly correct Sophia—helping her understand the known answer—so as not to waste class time and create additional confusion? A teacher who approaches uncertain moments such as this one with the eye of Monet may recognize that there is potential value in exploring the idea further (e.g., "Okay, Sophia, can you give us an example of when two plus two can equal two?"). Sophia, for instance, might explain, "If you have two hungry cats and two

> fat mice, you end up with two fed cats." The teacher is now confronted with a secondary decision of whether to follow the new direction presented by this idea (e.g., "Can anyone else think of an instance when two plus two equals something other than four?") or refocus the students back to the planned lesson (e.g., "Yes, Sophia, I suppose that's true. Now, let us return to reviewing our math facts..."). Beghetto (2013, p. 26)

The recent match between the psychology of creativity and the school has become sensible through a change in the meaning of creativity rather than a change in the meaning of schooling/education. The 'cutting-edge' cognitive research of creativity that supports the notion of creative thinking as ordinary thinking is not a new scientific discovery that falsifies the notion of creative thinking as extraordinary thinking. Rather, it is a discursive shift, which indicates the status of psychology as a discursive invention. The cognitive perspective is another theoretical framework. It redirects how we understand and speak about creativity rather than invalidating the psychometric perspective.

The psychology of creativity in education has been accompanied by the development of other disciplines related to education and creativity. Toward the end of the twentieth century, education comes into relation with many other social sciences, which have added to psychological understandings of creativity rather than dismantling them. The sociology of education experienced the most dramatic growth, rivaling the influence of psychology in American educational thought by the end of 1960s (Reuben, 2003). The economics of education also emerged as a new sub-discipline during this period (Reuben, 2003). In response to the low status of educational psychology within the field of psychology, or perhaps as part of entrepreneurial trends in educational research, there is now a disciplinary spin-off field that calls itself 'Learning Sciences' (Fendler, 2012). Research in the Learning Sciences may turn out to be

indistinguishable from research in educational psychology, and the change in the label may make no substantive difference to any intellectual or professional relationships with education (Fendler, 2012). Creativity has also become a multidisciplinary and interdisciplinary academic discipline. Worldwide academic research inquiring in creativity, first led by psychologists and then joined by contributions from many other disciplines, has given rise to scholarly monographs, edited volumes, journals, conferences and centers for the study of various aspects of creativity. A globalized educational discourse of creativity has flourished since the late twentieth century. What's more, the sense of 'creativity' has been extended to apply to the capacities of machines in general and computers in particular.

Concluding Remarks

Conducting this study, I was struck by how short the history of creativity is. Creativity has not changed education. It is modern education that has invented creativity. Educational psychology's invention of creativity reveals the dominant conceptualization of education as a process of qualification and socialization that is steeped in inequality. While the educational psychology of creativity has struggled to loosen the tie between creativity and innate abilities as well as to make creativity present in everyday activities, psychological theoretical tools are to establish police orders and make possible the administration of the individual. Psychology is giving space to other social sciences, but it appears that the educational sociology and economics of creativity reinforce psychological assumptions, as it could be seen in the neoliberal discourse of creativity since the late twentieth century.

CHAPTER 3

CREATIVITY AS A SUBJECT: THE CASE OF EXTENDED TRIZ IN VIỆT NAM

> *When I mentioned to the professor that I was very excited to know a Vietnamese professor who has been teaching creativity methodology for twenty-five years, the professor asked me to whom he was teaching. When I said, well, it started with 9th graders, he quickly said: "Oh, it's K-12." I said: "Well, the programs are mainly carried out in the university." "Oh, that's post-secondary." "But, he also has participants in their seventies." "Oh, that's continuing education."*
>
> *"That's not the point." I replied. "His programs are for everyone no matter what ages and what backgrounds—no boundaries, no limitations. His whole idea is that everyone should have the chance to know the scientific way to bring their inner creative resources forth and to enjoy a more effective and happier life."*
>
> ~ Yihong (2002, p. 143)

Introduction

Defining the Case and the Project

This chapter explores an intriguing case of curriculumizing creativity: the case of extended TRIZ in Việt Nam, where the knowledge of creativity is systematized into a subject and brought to the public. A science of creativity—Creatology—has been built based on TRIZ, the Russian acronym for Theory of Inventive Problem Solving. Instead of focusing on analyzing anecdotes about real-life creative processes and observing the wide range of human responses to controlled tasks, TRIZ approaches creativity from studying technical systems and describing their evolution. The theory offers a complex set of conceptual tools to be used in solving inventive engineering problems. Originally developed by the Soviet inventor Genrikh Altshuller

and his colleagues beginning in 1946, TRIZ has been adapted and taught around the world. In Việt Nam, hundreds of extended TRIZ classes, known to the public as Creativity Methodologies (Phương Pháp Luận Sáng Tạo) classes, have been organized by Phan Dũng, Dương Xuân Bảo and their students in Hồ Chí Minh City and Hà Nội, the two largest cities in the south and the north of Việt Nam. The extended theory of inventive problem solving, extended TRIZ, adapts TRIZ so that it is applicable to solving problems in all aspects of life and helpful in enhancing everyone's creative problem solving. Creativity Methodologies classes across time and space have embodied different curricula; however, as they are unified by extended TRIZ, an overall curriculum of extended TRIZ can be assumed.

This chapter inquires into a specific community of extended TRIZ, where a variety of things, people, and practices are put together under the name of extended TRIZ. I pay attention to the experience that occurs as I take part in the community, but the chapter mainly deals with the sayable of creativity and education. My inquiry into the process of curriculumizing creativity is an inquiry into the historical localization of certain discursive practices. Localization as the overarching term of the study refers to the development of a particular configuration of discursive practices in a place. To localize means to gather in one locality. I am describing a constellation of educational discourses that has specifically grown in Việt Nam. Nevertheless, by invoking the locality of the constellation, I underline its having a position in space—its specific composition—rather than signifying that this constellation is necessarily endemic to Việt Nam. Việt Nam is also discourse, and I understand that my writing integrates in and has an effect on what is thinkable about Việt Nam. This chapter may look like a grounded theory qualitative study, but it does not identify with the structuralist tradition of social sciences. I do not assume a

split between language and reality. Rather than developing a theory to describe an objective phenomenon, I highlight the discursive nature of a phenomenon.

In order to portray curriculum development, I examine the relations between theories and experience as articulated by the teachers (curriculum developers) in the existing literature on extended TRIZ and in their conversations with me. The study probes how the teachers of extended TRIZ relate to what they teach and what factors and events have shaped their curriculum practice. I follow the teachers' explicit theories of creativity, education, and curriculum development and their narratives of experience with TRIZ. I place the explicit educational theories and the narratives of experience on the same plane of epistemology and ontology. They both have come to the surface of the sayable, accessible to me by means of words and presenting educational theories. I do not deny that my writing will, to a certain extent, present the speakers' theories and experience, but this is not my purpose. I aim to draw a topography of educational thoughts and practices that is hopefully meaningful to my readers not because it is an intellectual and experiential property of specific speakers.

My work relies on the teachers' articulations, but I do not speak for them and on behalf of them. Rather, I talked with the teachers and have been reflecting upon their articulations for the sake of engaging with educational thoughts. While I cannot be separated from the entanglement of relations that has been formed through my ethnographic participation in the site, I have a clear sense that it is I who make sense of what has been going on. I participate in the discursive site of extended TRIZ in a way similar to how an emancipated spectator acts:

> She observes, selects, compares, interprets. She links what she sees to a host of other things that she has seen on other stages, in other kinds of place. She composes her own poem with the elements of the poem before her. (Rancière, 2009c, p. 13)

As I invoke the teachers' explicit theories and narratives of experience, I share what I think from my encounters with them. My sense making has been influenced by the fact that I have participated in the community of extended TRIZ since 2001. My reconnection with the community has actually involved meeting and talking with many people. I am thankful for the teachers' generous collaboration as well as the availability of a number of other people whose names I do not mention in this chapter.

Curriculum Development

Phan Dũng, the key author of extended TRIZ, described the development of extended TRIZ in Việt Nam as a process in which a theory is imported, popularized, and developed (Phan, 2012a). This process was compared to the work of growing a crop in an area of land from the seeds of a new variety of rice imported from the outside. The seeds are nurtured; they sprout and grow. The task then becomes to grow a great number of seedlings so as to plant a large scale crop for the population. Observations about the conditions of growth and scientific breeding techniques will improve the subsequent crops, even the seeds themselves. In 2007, the talk show *Contemporaries*[15] introduced Phan Dũng as 'the sower of creativity seeds'. In the show, among the questions from the audience was: "If the theory can be used to invent things, besides focusing on educating the theory, why don't you use it to invent products that could be sold for a lot of money?" Phan Dũng responded to the question with the Vietnamese proverb: "You do not cook the rice seeds that you save for the subsequent crops."

The metaphor of curriculum development as growing a crop draws the figure of curriculum development as an agricultural engineering process. I will not develop this chapter as an elaboration on the metaphor. This chapter is conceived from my interest in grappling with

[15] The talk show *Contemporaries* exhibits an extensive variety of stories about personal achievement and national responsibility in the post-reform Việt Nam. *Contemporaries* ran weekly from 2001 to 2012 at prime time, 8pm every Sunday evening, on the Vietnamese national channel VTV1.

multi-layers of theorization and the plurality of theories that constitutes one discursive site. The chapter does not start with targeting a monolithic discourse, but it is critical in the sense that it endeavors to illuminate the limits of thought and the possibilities of subjectivity inscribed by a holistic discursive configuration.

Through the prominent discourse of love in the site, curriculum development appears to me as a process in which the person in love forms himself as a teacher, integrating into as well as generating the sensible of creativity and education. As I handle the abundance of theories in the site, the notion of curriculum development as the work of love is treated as an anchoring theme rather than an umbrella term.

Outline of the Chapter

At the beginning of this introduction, I have informed that the curriculum of extended TRIZ teaches how to solve problems creatively to anyone who is interested in the issue based on a theory of creativity that features the evolution of technical systems. To describe the curriculum, I will introduce the teachers and present the educational theories that constitute the case into four sections corresponding to the questions people usually have when they imagine an organized curriculum: What motivates the curriculum? Where is the curriculum taught? How do the teachers teach it? What are the specific contents and purposes? My analysis of the theories attends to the issues of instrumentality and ethical integrity, universality and locality, and equality and inequality.

The first section characterizes the discourse of love in the site of extended TRIZ, an intelligibility of love that is not limited to the love of creativity, though I suggest that creativity appears as a source of attraction and inspiration. The second section deals with how TRIZ and extended TRIZ, which were at first understandable to only a very small group of people, have

come into public intelligibility and visibility. I will offer alternative explanations for the social recognition of the new, suggesting that TRIZ and extended TRIZ are not the only theories of creativity showing up in the site. The third section addresses the fact that the teaching of TRIZ and extended TRIZ does not call for a singular methodology or philosophy of teaching. It depicts a range of teaching theories that spotlight the space between the teacher and the student, which adds to our understanding of how TRIZ communities are formed. TRIZ, extended TRIZ, and how they hang together with certain theories of education are discussed in the final section.

Meeting the Teachers: The Journeys

Three of the five teachers were working at the Center for Scientific and Technical Creativity (CSTC), University of Science (UOS), Vietnam National University Hồ Chí Minh City (VNUHCMC).[16] I had heard of the three teachers through public media and friends, but it was not until I conducted the study that I met them in person. In summer 2015, I came back to Hà Nội from Michigan State University (MSU). After staying in my hometown for half a month, I flew to Hồ Chí Minh City to see the teachers. During the one month there, I attended their classes not only as a researcher-observer but also as a student. I worked with them primarily at CSTC, located on the third floor of the B building in UOS, VNUHCMC.

Dr. Phan Dũng (thầy[17] Dũng) was a student of Genrikh Altshuller. Thầy Dũng let me shadow his lessons not only at CSTC but also at Nguyễn Tất Thành University,[18] where he was teaching a group of lecturers in preparation for the establishment of extended TRIZ (Creativity Methodologies) as a subject at the university. He provided me with historical archives of CSTC's

[16] VNUHCM (Vietnamese: Đại học Quốc gia Thành phố Hồ Chí Minh), one of the two largest/national universities in Vietnam (the other is Vietnam National University Hà Nội), was founded on January 27 1995 as a national multidisciplinary university by merging a number of existing prestigious universities in Hồ Chí Minh City. Chartered by the government, its mission has been to become Vietnam's premier institution of higher education.
[17] In Vietnamese, 'thầy' refers to a male teacher and functions as a noun or pronoun. In this chapter, I want to maintain the Vietnamese culture of addressing teachers. I use the term 'thầy' before the name of the person who I consider my teacher.
[18] A big private university in Hồ Chí Minh City

activities. Phan Dũng's journey with TRIZ could be traced back to his coming to the Soviet Union (USSR) for academic studies. In 1967, the Vietnamese government sent young Phan Dũng to the USSR to study experimental solid state physics. While pursuing a bachelor's degree in experimental solid state physics at the Soviet State University of Azerbaijan (SSUA) in Baku, Phan Dũng encountered TRIZ. He studied TRIZ with Altshuller from 1971 to 1973 at the Azerbaijan Public Institute of Inventive Creativity (APIIC) in Baku. As thầy Dũng recalled, he taught the first Creativity Methodologies course in 1977 as an extra-curricular activity for students while being a lecturer at the Department of Physics, Hồ Chí Minh City Multidisciplinary University, which was later reorganized and joined VNUHCMC in 1995. Since 1977, except for the time he worked on his doctoral theses in pursuit of the degrees Candidate of Science and Doctor of Science in experimental solid state physics at the State University of Leningrad (now Saint Petersburg), thầy Dũng has been teaching Creativity Methodologies in Hồ Chí Minh City. He founded CSTC in 1991 and was the director of the center until 2014. Thầy Dũng published about the science of creativity in both Vietnamese and English. He presented at international conferences on TRIZ and education and occasionally taught Creativity Methodologies in other countries such as Malaysia and Singapore. In Việt Nam, thầy Dũng has appeared in various newspapers, magazines, and television channels to speak about creativity, TRIZ, and CSTC. A considerable literature on his educational activities has been produced by public media, but I have not seen any academic Vietnamese study that features him as a protagonist. In the English literature on education, apart from Phan Dũng's own accounts, I encountered Yihong's (2002) portrayal of Phan Dũng as an educator in cross-boundary journeys toward integrative learning and integral being. Indeed, when thầy Dũng and the other teachers of

extended TRIZ speak, ethical integrity reverberates. These are the teachers who teach what they love and practice what they preach.

Trần Thế Hưởng (thầy Hưởng) is the current director of CSTC. Thầy Hưởng got to know TRIZ in 1986 thanks to thầy Dũng's teaching. He joined CSTC since the beginning of its establishment. In terms of official academic degrees, thầy Hưởng was trained in solid state physics. He has played a significant role in connecting CSTC with its alumni and building TRIZ communities. Besides seeing thầy Hưởng in his office and class, I also met him at his house, where he hosted a TRIZ club named TRIZ Fighters, which gathered every Saturday afternoon to practice TRIZ based problem solving.

Vương Huỳnh Minh Triết (thầy Triết) studied TRIZ at CSTC and joined the teaching staff of the center in 1993, when he had just graduated from college with a major in animal physiology.

As I searched for the teachers of extended TRIZ in Hà Nội, I came across the name Nguyễn Minh Tân, currently a lecturer at Hanoi University of Industry (HaUI), the only active teacher of extended TRIZ in Hà Nội. Tân has a background in math and computer science. He taught himself TRIZ before taking part in various TRIZ classes. He also came to CSTC to study TRIZ. Tân was teaching Creativity Methodologies as a course in the curriculum for undergraduates in several departments within HaUI. He successfully introduced extended TRIZ to Department of Computer Science in 2008 – 2009. The course was then brought to Department of Electronics and most recently Department of Fashion Design. It was summer when I met him in person, so his classes at HaUI had concluded. Tân was going to teach a short course on

Creativity Methodologies for a group of lecturers at FPT University.[19] I could not participate as I was in Hồ Chí Minh City during the time of the class.

The last teacher I talked with was Dương Xuân Bảo (thầy Bảo), also a former student of Genrikh Altshuller.[20] He attended APIIC from 1973 to 1975 while studying electronic physics at SSUA in Baku. I attended thầy Bảo's Creativity Methodologies class in 2001. It was a group of about 120 students. I remember thầy Bảo made an effort to call up and congratulate every student on their birthday. From 2003 to 2004, I was a teaching assistant for him. When I made a phone call to arrange a meeting with him after more than ten years of no contact, as I uttered my name, he immediately recognized me. I met with him two times at his home in a small alley in Hà Nội before returning to MSU. Thầy Bảo no longer organizes TRIZ classes. He wanted to focus on practicing TRIZ and was using TRIZ in writing business slogans. Thầy Bảo told me he taught the first Creativity Methodologies class in 1987 for a group of 24 officers at the National Office of Inventions of Vietnam, currently the National Office of Intellectual Property of Vietnam. Before joining the Office in 1988, he worked for the Agency of Techniques, Vietnam Ministry of Public Security. In 1992, thầy Bảo moved to Vietnam Institute of Science and Technology and in 1995 to Hanoi Department of Science and Technology (HDST). After a short period of time working at HDST, he retired from the organization and, together with his friends, founded Vietnam Foundation for Science and Technology (VFST), a self-sustaining center belonging to Vietnam Union of Scientific and Technological Associations. With VFST, thầy Bảo taught Creativity Methodologies classes open to the public. He translated some of Altshuller's books from Russian into Vietnamese and published many short articles on creativity and TRIZ in popular Vietnamese newspapers and magazines. From the first Creativity Methodologies class in

[19] A big private university in Vietnam, with its headquarter located in Hà Nội
[20] Apart from Phan Dũng and Dương Xuân Bảo, four other Vietnamese students also studied TRIZ with Altshuller in APIIC in Baku, but they did not become TRIZ teachers.

1987 to the last (latest) class in 2012, thầy Bảo counted to 54. He recollected that mine was precisely the 21st. As always, he treated me with favor, expressing trust in my capacity and care about my life. Acting as a fortune teller, he remarked, "You were born in the year 1981. Your life is supposed to be difficult. But your commitment to the new will resolve problems." [21]

I talked with the teachers in Vietnamese. My direct quotes of their articulations are my own translations, except for the case of Phan Dũng, where I rely extensively on direct quotes from his English writings.

Lovers' Confessions: A Discourse of Love

I dream to be a teacher of TRIZ

Bringing TRIZ to every corner of the world

Bringing TRIZ to every village

We will do everything with the new methodology.

~ Nguyễn Bá Cát, the Epic of Creativity Methodologies

"How do the teachers relate to what they teach?" My short answer would be "love." As I reflect upon the teachers' articulations, I think about how love initiates and guides curriculum development as well as what love means. This section does not investigate different conceptions of love. Rather, it makes initial steps in identifying the discourse of love emerging from the teachers' articulations.

In one sense, love is a state of integrative mind-body in which the subject is absorbed into one thing to the extent of forgetting all other things.

> It's something special. I liked math very much. I felt happy when successfully solving a mathematical problem. But this didn't amount to the level of passion. My engagement with computer science later didn't either. I liked programming. I liked machines. But

[21] As a fortune teller, he mentioned the year 1981 relative to Eastern astrology.

> studying TRIZ has been something like a passionate experience. There was a period when I had to open and see TRIZ materials everyday… There is something like 'intrinsic motivation'. Then outside obstacles do not really count. I have tried every possible way so that I could be with it. (Nguyễn Minh Tân)

In another sense, love means persistent passion for which one is willing to sacrifice oneself. For example, Tân has decided to stay committed to TRIZ for the rest of his life. TRIZ has become himself: "I will never leave it. Leaving it means leaving myself." The sacrifice of oneself for love in this case is understood as the willingness to form oneself in relation to the terms of what one loves.

Love is usually distinguished from desire or fantasy by its heterogeneity. I often think of love as an appreciative relation towards something/someone other than myself. The self and the other are not truly separate, but it happens that in my sensibility there are two in love. Nevertheless, "do what you love, and love what you do" is also a piece of common wisdom. The saying shows that discursively love can be also about the identification of oneself. People can identify with what they love to the extent that they do what they love. The site of extended TRIZ presents an inscription of love in which what is loved is neither an absolute Other nor reduced to self-identification. Indeed, as the teachers love TRIZ, TRIZ has its own integrity and power. The teachers resisted hijacking TRIZ for pragmatic purposes. Apart from emphasizing the usefulness of TRIZ, Phan Dũng acknowledged that the theory is beautiful. TRIZ is not a toolkit lying passively to be employed by human beings. It is a source of inspiration by itself. Tân commented that TRIZ was distinctive in the context where students were generally bored by the school because TRIZ could get them to be attentive, emotional, and passionate.

> In order to urge students to come to class, teachers usually have to keep track of their attendance and issue some kind of punishment for their unjustified absence. I experimented with not checking the students' attendance. It turned out that they all came to class and participated eagerly. (Nguyễn Minh Tân)

It is not only love that defines the teachers' relation with TRIZ. It is 'true love'. The sense of true love reverberates from the discourses of outstanding experience, recognition, commitment, and inevitability.

> In fact, I have never thought of that [quitting teaching extended TRIZ and doing other jobs]. Because the more I go on the path of TRIZ, the more I become passionate about it. This passion stems from the values that it has brought about. (Trần Thế Hưởng)
>
> To make it simple, it can be said that that I like the new. TRIZ was new, so I followed it. The further I follow it, the more I find it interesting, profound, and persuasive. (Vương Huỳnh Minh Triết)

Encountering what one loves may sound like fate. Phan Dũng highlighted that his curiosity about how to think developed since his childhood. The trajectory of his career was a lucky inevitability.

> Throughout my life, I have never stopped thinking that I am very lucky to know TRIZ (…) and to have learned it directly and happily by chance from the teacher: Genrikh Saulovich Altshuller, the father of TRIZ. I am sure that if I had not discovered TRIZ in 1971, I would certainly have known it later and would have followed it for the rest of my life. […] I think it is inevitable that my habit of reading about creative thinking, sooner or later, would have led me to TRIZ. And in this inevitability there happened a lucky event. (Phan, 2012d, pp. 272–273)

The event of luck was recalled in vivid details.

> One day, in 1971, when I was a senior, my lecturer of solid state theory was late, so I chatted to some Soviet students beside me. Fifteen minutes passed but the lecturer had not arrived yet. I asked them my questions associated with creative thinking. Andrei told me that the All-Union Association of Soviet Inventors and Rationalizators had just founded the Public Institute of Inventive Creativity which taught the creative thinking methods. He, himself, had been studying here and was finding it interesting. Like a thirsty man who sees the water, I asked Andrei to guide me to enter the Institute after class.
>
> We arrived early, met the teacher Mr. Altshuller, and after some of Andrei's introductory sentences, I said immediately what I had prepared because I had some reasons to worry: the class had begun quite some time before I arrived, it might already be full. I worried whether foreigners would be accepted to the Institute... In general, I worried that I would not be permitted to enter the Institute. The teacher Mr. Altshuller listened attentively to me, did not interrupt, and then briefly gave his agreement which dispersed my prepared arguments in the case of his having questions. He said: "If you love creative thinking, you can enter the class. I think whatever you study in this Institute will be useful to you and your heroic country. I will help you if you have any difficulties." I was as happy as if I were floating on air. And from that moment, I had a new life. (Phan, 2012d, p. 273)

The initiation of interest, the intervention of luck, the growth of recognition, and the persistence of commitment form a temporal dimension of love. In spatial terms, love has grounding, directing, limiting and enabling effects. The teachers have chosen to live with TRIZ.

They used the terms of extended TRIZ to make sense of their experience, to solve problems and make decisions. This everyday habit does not indicate possession or the state of being possessed. As a relation, love is vulnerable. That the teachers have been successful in maintaining a persistent relation with the theory is a specific scenario. In another scenario, love is undone, not necessarily due to a lack of strong will or emotion. Love creates space, but the imperative to create a space for love also resounds. Tân told me he had met promising students who were passionate about TRIZ but could not find a place to stay committed to it. He admitted his failure in helping set up such a space for them. After graduating from HaUI, Nguyễn Bá Cát, the student who was enamored with TRIZ and wrote the Epic of Creativity Methodologies,[22] could not find any place to work under the name of TRIZ. Tân wondered if he kept dreaming to be a TRIZ teacher.

Narratives of Struggle: TRIZ Communities and the Appearance of the Teacher

This section explores the relation between love and the issue of forming TRIZ communities. The narratives about how TRIZ and extended TRIZ have been brought to the general public seem to present an institutional history of TRIZ, but it also appears to me that the development of TRIZ and extended TRIZ in the society as an issue of self-invention and community building. Modern institutions are prominent in the stories due to how the teachers have been located in historical contexts. For example, Altshuller used to live in a controlled environment where every public gathering must be reported to the government. The five teachers of extended TRIZ worked for public institutions. The task of creating a public space for TRIZ and extended TRIZ prevails as a process of institutionalization. However, my aim is not to investigate how TRIZ has been institutionalized. Instead, what matters is how a theory of

[22] an epic poem that reflects upon the knowledge presented in the summarized textbook for the standard basic course of Creativity Methodologies (Phan, 2007); it transforms the prose of the book into verses.

creativity is received—how the new comes into public recognition. In the case of extended TRIZ, such a process is part of curriculum development, a process in which the person in love forms himself as a teacher, integrating into as well as generating the sensible of creativity and education.

The teachers' loving relation with TRIZ, as I perceive, does not reduce TRIZ into a mental representation. I heard the teachers' wish to keep in touch with the development of TRIZ in the world. TRIZ is a living body, though these are not the exact words the teachers articulated. The work of love firstly involves grappling with distance/proximity to be with what one loves—not simply an abstract theory but networks of concrete people, objects, and practices of TRIZ—TRIZ communities. To portray the workings of love, I mobilize Phan Dũng's narrative about his experience with Altshuller, the standard tale about Altshuller's life and career, and stories about the establishment of extended TRIZ in Việt Nam.

In Phan Dũng's narrative about his experience with Altshuller, his effort to keep in touch with TRIZ is not distinguishable from the struggle to maintain contact with his teacher and other TRIZ lovers across distance. The story moved me to the edge of tears. I insert below a shortened version of the story in Phan Dũng's own words. The extract is long as I find it very difficult to make the story short. Its details stage the broad historical context of Phan Dũng's relation with TRIZ and Altshuller. They also evoke the materiality of encounters. My hands tingle as I imagine the hands that touched the books and the handwritten letters Phan Dũng and his teacher exchanged.

> After successfully defending my two theses: one on physics at the University and other on creativity at the PIIC I went to the teacher Mr. Altshuller's apartment to say goodbye to his family because I had to get back to Vietnam after my graduation. […] He took a lot

of typed pieces of papers out and gave them to me and said: *"Here is the draft of my book. Take it with you. After its publication, I will post the printed copy to you. But in case it gets lost, you already have this draft copy. Send our best regards to all your family members. I am sure that your country will be completely re-unified without fail."* I told him that, maybe in a short time I would come back here to be a doctoral student in physics because I was recommended by the State University of Azerbaijan. But according to our rules, I had to return to my country first. At that time, it was the beginning of the summer of the year 1973. The Paris Agreement on Peace in Vietnam had been signed several months earlier. During the following years he kept his promise to ensure that they reached me, he asked the students who returned to Vietnam after me to bring me the necessary materials.

Until the end of the year 1982, I was prevented from going to the Soviet Union for my work on Ph. D. dissertation because of many unreasonable bureaucratic reasons on four occasions. Finally, after I had passed a tiring exam with many requirements, I flew to the Soviet Union. This time, I studied at the State University of Leningrad (now Saint Petersburg), some thousands of kilometers away from Baku. On January 2nd, 1983, the teacher Mr. Altshutller replied: *"Pleased to get your letter from Leningrad, not somewhere else. It is wonderful, because there are schools of TRIZ with many instructors and researchers. They will give you a lot of information about TRIZ as well as its accomplishments. I am writing immediately here some addresses of those who are in Leningrad."*

Further, he gave me a list of three TRIZ teachers with their full names, addresses, and telephone numbers: V.M. Petrov, E. S. Zlotina, V.V. Mitrofanov and wrote: *"You tell*

them that I introduced you to them, and today I will write to Zlotina about this." […] After receiving the teacher Mr. Altshuller's letter I contacted Volodia Petrov and Fira Zlotina. And we became friends.

At the beginning of October, 1983, I went to Baku to visit my old places, my old teachers and classmates, especially the teacher Mr. Altshuller's family. […] I told him about what I had done in Vietnam (I had taught the first course on TRIZ in Vietnam in 1977) and my opinions about TRIZ. He gave me positive encouragement about my work, gave me his own ideas and his own experiences. […] If he had some points to disagree with me, he just suggested, *"You may be right in such a case."*

He saw me off at the bus station. He went with his back just beginning to be bent over and a slightly slow walk, which I had not seen before. I felt moved and loved him so much. From the bottom of my heart, I prayed for his health. I wished that he would live a long, long time.

Quite different from my arrival with a light traveling bag, I flew back to Leningrad with my overweight baggage. […] The teacher Mr. Atlshuller's gift alone weighed over 10 kilos.

Thanks to him and TRIZ colleagues, especially, my new friends: Volodia and Fira, I always kept up with the development of and new studies on TRIZ (including the manuscript materials that would be published later in the form of articles or books). […]

I remember one episode. It was the third time I was living in the Soviet Union (again in Leningrad), doing my research on my Doctor of Science degree, and I discovered two books in the package he had sent me. These books were written by his former students about TRIZ and about how to teach it with acknowledgements and

dedications to him from the authors in ink on the first page. At once, I phoned him to confirm: *"Genrikh Saulovich, you must be mistaken in sending me the books whose authors had presented them to you."* He just laughed, *"No, I am not mistaken. You need them more than I do."* Hearing nothing from me on the end of the line, he thought that I must be so embarrassed. So, he added, *"Don't worry. I will tell them that I presented the books to you from me. Now let's change the subject..."*

Here is his last letter of February 2nd, 1997: *"I've got your letter of January 6th, 1997 with your report on your teaching trip in Malaysia and your photos. Thank you so much."* […]

After that, I did not get any letters from him any more although I wrote to him several times. I thought that, maybe, he had moved to a new address like before, when his family went to Petrozavodsk from Baku to live, but... maybe... sometimes I shuddered with fear when my mind was lead to that terrible thing... In the end of the year 1998, our Center for Scientific and Technical Creativity (CSTC) was connected with the Internet, on American TRIZ websites I got the distressing news that he had passed away on September 24th, 1998 after a long sickness. (Phan, 2012d, pp. 278–280, emphasis in original)

The efforts to stay in touch with what was happening thousands of kilometers away without the availability of the internet were tremendous. I feel love, and I also see a TRIZ community with which Phan Dũng identified. When Phan Dũng came back to Việt Nam, TRIZ had not made sense to the people there. His development of the curriculum of the extended TRIZ then brought about a community in which he could appear as a TRIZ lover. While this description is not how Phan Dũng spoke about his educational project, the narratives in the site

let me see an issue of becoming visible in relation to what one loves. Curriculum development is an intervention into a relevant 'distribution of the sensible', a composition/partition of communal forms of perception that determines what is allowed to be visible or audible as well as what can be said, made or done (Rancière, 2004). This intervention is not only about changing the sensible but also about becoming a part of it. Relative to love, curriculum development forms and connects self-identity and community. From enacting the curriculum, the teachers of extended TRIZ make up a new identity in the community of Việt Nam—the TRIZ lover. They have written TRIZ into the discourse of Việt Nam and Việt Nam into the discourse of TRIZ.

The case of extended TRIZ exemplifies a trajectory from loving one thing to teaching it. It should be noted that the curriculum work is also directed by the discourse of doing good to others, which I think also counts as a discourse of love. Phan Dũng (2012a) described an imaginary scenario in which all the Vietnamese who studied TRIZ in the Soviet Union found TRIZ meaningful to them but none of them wanted to popularize it in Việt Nam. Curriculum development entails the wish to share with others what one finds beneficial. A teacher is formed not only by self-interest but also by a disposition to the good. Tân also spoke about finding himself in being meaningful and good to others through teaching TRIZ.

Creating a public space for a new theory is difficult. All the available narratives about Altshuller's life and career underscore the hardship in making TRIZ public. The development of research on creativity in the USSR and the US has been framed as a result of competition between the two empires in the Cold War (1947-1991). However, Altshuller's endeavors to promote inventive activities were suppressed by the government of the USSR. In 1949, Genrikh Altshuller and his colleague, Raphael Shapiro, sent a proposal for the development of TRIZ and the renovation of the Soviet patent system and inventive activities to Stalin's government. Their

act was mistaken as terrorism; they were arrested in 1950 and sentenced to 25 years of penal servitude.

> He was exiled to Vorkuta, a hostile area with ice and snow, to work as a coal miner. During the time he was in his labor camps his father died. His mother applied many times for his amnesty, but failed. She was so disappointed that she committed suicide in 1953. (Phan, 2012d, p. 282)

During the Khrushchev Thaw following Stalin's death in 1953, Altshuller and Shapiro were freed. Altshuller returned to Baku. For 10 years, from 1958 till 1967, Altshuller corresponded with the Central Council of the All-Union Society of Inventors and Innovators (ASII; Russian acronym: VOIR) in order to ask for an opportunity to make a public announcement about his methodology of creativity; he received one refusal after another during all these 10 years. By the 1970s, a full-fledged TRIZ movement developed among Soviet engineers and other technically inclined people. Altshuller played the role of its intellectual leader. In 1970, the Central Council of ASII decided to found the Public Laboratory of Inventive Methodology (PLIM; Russian acronym: OLMI). In 1971, the Azerbaijan Public Institute of Inventive Creativity (APIIC; Russian acronym: AzOIIT) was established. Altshuller took leadership of the organizations. He lectured at TRIZ congresses, published articles and books, and corresponded with various TRIZ practitioners. He became the founding member and president of the Russian TRIZ Association. However, APIIC did not last long. While thầy Bảo was studying in APIIC in 1974, the Institute stopped recruiting new students. Graduating from the Institute in 1975, Dương Xuân Bảo belonged to the second and also the last generation of students of APIIC. He estimated that APIIC educated about 80 students. He mentioned an event he thought was significant to the close of the Institute:

> There were six Polish students coming to Baku and expressing a wish to study TRIZ with him. He was enthusiastic and open-minded, so he admitted them and taught them before reporting the issue to Moscow. For these Polish students, geographically, Baku was nearer to them than Moscow. Thus, for convenience, they went to Baku first. The government accused him of revealing national secrets and threatening national security. (Dương Xuân Bảo)

In thầy Dũng's story (Phan, 2012d), these Polish students were cadres from the School of Perfection of Management Qualification belonging to the Polish Council of Ministers. Altshuller let them study at APIIC without an official permit from the Central Council of ASII. Sofanov, president of the Central Council of ASII at that time, took it as a reason to close PLIM. To protest the decision, Altshuller withdrew from APIIC. In another story, in 1974 the Central Council of ASII closed PLIM because Altshuller disobeyed the order to discontinue establishing TRIZ schools throughout the country ("Genrikh Saulovich Altshuller," 1998). The end of PLIM and APIIC does not mean the end of TRIZ. Altshuller had been successful in making TRIZ sensible to many people.

Phan Dũng's establishment of CSTC took place in a different context. In 1991, the Soviet Union collapsed, and the discourse of knowledge economy was emerging. Thầy Dũng's Creativity Methodologies courses within the Hồ Chí Minh City Multidisciplinary University had earned a good reputation. In April 23 1991, the rector of the university, Prof. Dr. Nguyễn Ngọc Giao, signed the agreement to establish CSTC as an official unit of the university (Phan, 2012a). According to the agreement, the official staff of CSTC would be able to be fully devoted to the work of the center and have the autonomy to develop the curriculum, and CSTC had to be financially self-sustaining. While I was writing this chapter, in March 2016, the center opened its

474th basic class of Creativity Methodologies. CSTC's Creativity Methodologies basic course is officially named Methodologies of Creativity and Innovation: Problem Solving and Decision Making. Phan Dũng attributed the success of CSTC to his application of the laws of TRIZ, using TRIZ specific terms such as 'intrinsic resources', 'extraction principle', and 'positive feedback loop'.

> When he talked about how he used TRIZ principles to develop, organize, and promote CSTC work, he said, first he tried to use all the intrinsic resources at the university. He went around the university to identify rooms not used often. Then he talked with the people in charge if he could borrow or rent the place. In this way he got the place for the center. Next he used the extraction principle to target a small number of the audience in HoChiMinh City. He published brochures to introduce the program and attracted people who really needed to learn creativity in their jobs. He started with workshops of fifty people each time, by publicizing the program. In this way, he attracted to the program those people who were really interested in learning creativity methodology. When they finished their study and found it useful, they would talk to friends and friends would talk to friends. This positive feedback loop would cause an amplifying effect. Though CSTC started small, by doing it right, it mushroomed very quickly. (Yihong, 2002, pp. 160–161)

Currently, CSTC is the only TRIZ center dedicated to TRIZ studies and education in Việt Nam. Thầy Bảo has left VFST, and the center no longer offers Creativity Methodologies courses. Tân, the only active teacher of extended TRIZ in Hanoi, is struggling to establish an independent TRIZ center. He said he was still in the stage of preparation for full devotion to TRIZ. The place of CSTC within UOS, VNUHCMC is, however, not secure in the way departments of

established disciplines such as physics, chemistry, and biology are. Given its resources, CSTC has been efficient and effective in educating a large number of people. However, UOS questioned its existence and Phan Dũng's leadership on the basis that CSTC did not generate profit for the university. In 2014, UOS did not renew its contract with Phan Dũng. Thầy Dũng has been protesting the way the university has unfairly evaluated his work by filing a lawsuit against the rector and the head of the Office of Administration and Personnel Management of the university. This protest has become a public event. After retiring from UOS, thầy Dũng has joined Department of Philosophy, University of Social Sciences and Humanities (USSH), VNUHCMC. He told me his initial proposal for developing Creativity Methodologies at USSH was approved. He has defined his own tasks rather than conforming to an existing institutional role. In this way, thầy Dũng remains a key member of CSTC and is dedicated fully to the work of the center—the mission of developing extended TRIZ.

TRIZ's coming to the sensible of the public can be explained by the TRIZ lovers' application of the principles of TRIZ itself. According to thầy Dũng, the popularity of TRIZ in the society follows the laws of evolution.

> Victor Hugo wrote: *"There is one thing stronger than all the armies of the world. And that is an idea whose time has come."*
>
> Apparently, Mr. Altshuller had managed to catch the idea and foresaw the "time of idea"; therefore, he became stronger than any obstacle he met on his way. And he got more and more supporters and followers, in his own country as well as all over the world. Since the 1990s, more and more researchers have predicted that the age of creativity and innovation will come after the age of information. (Phan, 2012d, p. 284, emphasis in original)

The availability of the historical conditions for the intelligibility of TRIZ—the dominance of scientific thinking, the development of technology, the discourse of knowledge economy, etc.—is another explanation. In line with this explanation, the new is the reorganization of existing materials and discourses that creates a new meaning but fits in the material-discursive configuration giving rise to the reorganization itself. In other words, it is product of particular historical conditions rather than a destination in a teleological path. In this dissertation, I have been writing about material-discursive configurations undergirding the intelligibility of certain theories. However, this is a descriptive venture to critically question what is possible to perceive rather than a causal explanation.

For another theory about the social recognition of the new, we can see how love has played an important part. The lovers have the courage to announce what they appreciate and believe in. They assume that the new theory could make sense to other people, persistently verify this assumption, and luckily succeed.

In summary, from the discourse of love in the site, I have formulated a theory of curriculum development as the process of forming a community in which the lover could be and appear with what he loves, for himself and also for the sake of others.

Recognizing, Delivering, Contagion, Provocation, Persuasion, and Modeling

This section explores a group of theories of teaching that address the space between the teacher and the student. This space itself defines teaching, a teacher and a student. The section describes the multiple ways in which the teaching of extended TRIZ has occurred or may occur.

To begin with, the site of extended TRIZ underscores the importance of independent thinking. One of the important lessons thầy Dũng learned from his professors in the Soviet Union is the value of encouraging students' independent thinking. This encouragement can happen in a

very simple way: just let students do things by themselves. Thầy Triết had a habit of exploring things by himself.

> Don't think that I am boasting. But I use these words: I consider myself the king of self-study. It does not mean I am talented. There are many cases in which we try to find a teacher. After listening to his lecture or guidelines, we only have some vague ideas about the issue. Then we think that perhaps there is not a good match between the teacher and us. In this case, I think that I should explore the issue by myself. It would be better for me. That's it. It has become a habit. (Vương Huỳnh Minh Triết)

It is possible to say that in independent thinking, a person uses his own intelligence and will to 'teach' himself as he tackles an issue. However, in the site of extended TRIZ, the teachers teach extended TRIZ to others. They spoke about the teacher as a human other than the student. The presence of the teacher is supposed to enrich the student's experience in different ways.

Thầy Triết spoke about having a teacher as a matter of 'duyên'—a lucky encounter with another person that results in new knowledge and valuable experience. Teaching is possible by means of the student's recognition.

As thầy Dũng described his advantages of having studied TRIZ with Altshuller, a theory of teaching as delivery comes into view.

> First and foremost, it was the chance to learn the work (TRIZ) from the author himself. Therefore, the learners were not afraid of misunderstanding after some misrepresentation of TRIZ's methodology. Nowadays, when exploring the Internet, and watching the activities about TRIZ over the world, I find that the problem of incorrect understanding and teaching of TRIZ is not in very small number. When learning from the author himself, learners could ask about anything involved with the work and they could have

reliable answers to their questions, even concerning the experiences with which his work was written. If you learn only from those who have read or learned before you, you will not have this chance.

However, it is unascertainable whether the author is always able to deliver effectively his knowledge to learners. There are various factors such as: the accuracy and the form of generating, processing and encoding information from the transmitter, the environment, and the cognitive level of the receiver that can influence the effectiveness of communicating this information. In this aspect, I had another chance too: the teacher Mr. Altshuller was an excellent pedagogue. As a learner, I found that his language was clear and accurate, neither complicated nor wordy. So listeners could understand exactly what he meant. Always using pictures, and illustrations, he made his lectures well-arranged and highly convincing with valuable details. The teacher Mr. Altshuller applied a flexible approach in giving lectures and answering questions, depending on the kind and/ or the level of listeners. He mastered a rich source of expressions, examples and stories from various domains, so he easily made a good connection with learners. Furthermore, he had a lot of funny, humorous tales and anecdotes related to creativity, which set a relaxed atmosphere in his classroom. Listening to him, I felt that he did not present TRIZ as the theory only but that I had listened to the story of his research and theory building process. Writing on this point, I remember Tolstoi's observation: "It is worth not only knowing that the Earth is round but more importantly knowing how to come to this conclusion." (Phan, 2012d, p. 275)

In the theory of teaching as delivery, the teacher has some knowledge to give the student—something that the student has not had yet. The effective teacher knows what to teach

and how to teach so that the student receives the intended knowledge. This theory of teaching as delivery assumes the teacher's will and intelligence to influence the student and implies an unequal relation between the teacher and the student in terms of intelligence.[23]

The teacher can also give the student something not by means of his intelligence and will but through contagion. If contagion is also considered teaching, this theory of teaching does not assume the student's intelligence and will either. Even attention is not a condition. In Phan Dung's description, however, contagion is predicated on the student's love and admiration for the teacher, who is better than the student in many aspects. It is the student who develops the loving relation, due to chance, his intelligence, and perhaps attention rather than will.

> If you are lucky enough to have regular contact with those who get your admiration, your love, and who are better than you in many aspects, you will learn a lot from them almost as if you had been infected by them, although they do not have the intention of teaching you at all, and you yourself do not have the intention of learning, either. This is such a natural, effective way of learning that what you have learned will be digested and transformed into your own flesh and blood. It is not a borrowing process. (Phan, 2012d, p. 281)

When the will-to-will relationship is invoked, teaching can become provocation or persuasion. Altshuller was also portrayed as a teacher who provoked and pushed his students to think. Thầy Triết understood his own teaching as persuasion by means of ethos.

> He commented on every part of the thesis and asked me many questions such as: "How have people taken steps to implement this idea? Which document was it published in? Have you really read the original text? Have you found all of the related documents? Is

[23] By invoking 'will' and 'intelligence', I refer to Biesta and Bingham's (2011) analysis of teaching based on Rancière's (1991) *The Ignorance Schoolmaster*.

> your data convincing? Is there any data more convincible? Is it too early for you to draw this conclusion? Is there any other explanation? Any other kind of approach and consideration? Are you able to create tools or at least offer some advice to help others overcome their psychological inertia? In which directions may this theme be continually developed?" ... As a matter of fact, "I shed the sweat" while working with him and I understood that he was very strict in research work. (Phan, 2012d, p. 276)
>
> There are subjects that need no persuasion. Like math, physics, and chemistry. You do not need to persuade people that they are important. This subject is different, specifically because it has not been popular. People who come to this subject have difficulties solving problems. The subject must be a source of attraction. The presenter of the subject must attract the audience. If you yourself are not excited about the subject and do not demonstrate progress in understanding the theory you pursue, how could you persuade others? That's simple. (Vương Huỳnh Minh Triết)

Thầy Triết's sharing also evokes a theory of teaching as modeling. When the speakers identify themselves as teachers, prominent in the site is the discourse of the teacher becoming an exemplar for his students. The teacher exemplifies ways of interacting with the subject matter, with ideas, people and objects. Teaching as modeling does not assume the necessity of the teacher's superiority as well the necessity of establishing a relationship of will-to-will or of intelligence-to-intelligence. The teacher might govern himself with his will and intelligence, but he cannot precisely limit what he teaches. What is important is the student's attention and what becomes sensible to them rather than a direct connection between the teacher and the student.

The teaching of extended TRIZ does not call for a particular methodology or philosophy of teaching. It also turns out that the teachers of extended TRIZ teach more than just extended

TRIZ. Two things specific to the case of teaching extended TRIZ stand out. One is the importance of the relation between the teacher and the subject matter, since the point of teaching extended TRIZ is to make extended TRIZ understandable to others. Thầy Hưởng said that he could only become confident as a teacher of extended TRIZ after 30 years of practice. The profound relation between the teacher and the subject matter does not necessarily imply a delivery model of teaching. It also becomes significant when teaching is persuasion or modeling. The other point is that the perception of extended TRIZ as new to the society justifies a way of thinking about teaching as persuasion.

TRIZ and the Extension of TRIZ: When Creativity Meets Education

Bringing TRIZ to the public, the teachers did not simplify TRIZ. They extended it in line with their understanding of what TRIZ is. Phan Dũng mentioned the issue of representing TRIZ accurately (Phan, 2012d). While this might display a positivistic assumption, the ways Phan Dũng and the other teachers spoke about TRIZ exhibited respect for what TRIZ is. Whether there is only one accurate understanding of TRIZ or there are multiple valid interpretations of TRIZ, what matters is the refusal to render TRIZ secondary to other ends. While respecting the integrity of TRIZ, the TRIZ lovers have enriched the meanings of TRIZ. This section will elaborate on TRIZ and the extension of TRIZ. It will also show how TRIZ and extended TRIZ hang together with certain theories of education. The discourse of love embodies TRIZ and extended TRIZ and evades the distinction between the subject and the object, but TRIZ and extended TRIZ are also present as instrumental theories consisting of abstract mental representations to be used as thinking instruments. This instrumentality connects the education of extended TRIZ with the improvement of social status. Nevertheless, the extension of TRIZ is not simply restricted to translating the world into engineering problems. An opposite direction of translation occurs and

defines the education of extended TRIZ as a process of ethical subjectification in which the human subject acts towards the good or/and cultivates a natural way of being in the world.

Creativity Methodologies and Education as a Nationalist Project

One person gropes through the dark labyrinth –

Perhaps he will find something useful, or maybe he will just crack his skull.

Another carries a small lamp to shine through the darkness and,

During his journey, his lamp shines brighter and brighter.

It finally becomes an electric sun illuminating everything and revealing all.

Now I ask: "Where is your lamp?"

~ D. I. Mendeleyev, cited in Altshuller (2000, p. 21)

An overview of TRIZ. TRIZ was originally developed by the Soviet inventor Genrikh Altshuller and his colleagues beginning in 1946. In the Soviet Union, the components of TRIZ were invented over a period of more than 30 years. Instead of studying human traits and the evolution of the human kind, the TRIZ based approach to creativity studies the global patent literature to identify the patterns of technical problems and solutions and the patterns of evolution of technical systems. One of the earliest findings of the massive research on which TRIZ was based is that the vast majority of problems requiring inventive solutions typically reflect a need to overcome a dilemma or a trade-off between two contradictory elements. Dilemma or inherent contradiction (physical contradiction) points to the desire of one thing that has two opposite properties. Tradeoff contradiction (technical contradiction) means that if something good happens, something bad happens too. According to the theory, a good inventive solution increases the 'ideality' of the technical system in consideration. The ideality of a system is the measure of how close it is to the perfect system. The perfect system, the 'ideal final result',

has all the desired benefits, at no cost, with no harmful effects. A good inventive solution uses unseen idle resources of the system to reach seemingly incompatible goals. These resources include energy, materials, objects, information or things that can be made easily from the resources that are in the system or nearby. Altshuller identified 40 inventive principles, which could account for virtually all of those patents that presented inventive solutions. Other sets of tools include 39 problem parameters used to aid analogical thinking when moving from a specific problem to a generic problem, a 39 ×39 contradiction matrix that displays the few inventive principles applicable to resolving any given technical contradiction between two problem parameters, and 76 standard solutions of SuField analysis used to solve relatively common optimization problems. TRIZ also provides 9 laws of evolution used to predict the characteristics that existing solutions are likely to develop in successive generations of a system. Another powerful TRIZ tool of systems analysis and forecast is the multi-screen diagram of thinking that specifies that any specific system can be viewed at three levels: system (the system itself within its boundaries), sub-systems and super-system. In addition, at each level, the past and the future of the system, sub-system or super-system are considered to understand what factors drive the evolution of the system. To help extract a core problem, ARIZ (Algorithm of Solving Inventive Problems) was formulated. ARIZ consists of a number of operators specifying how to perform the steps of analysis. TRIZ is highly complex and consists of technical terms derived from the manipulation of physical materials. To have a sense of TRIZ's technical language, let's look at an extract from Altshuller's (2000) presentation of one of the inventive principles:

33. Homogeneity

Objects interacting with the main object should be made out of the same material (or material with similar properties) as the main object.

Example 1: Patent of German Federal Republic #957,599. A foundry trough for treating molten metal by sound, or ultrasound, with the help of a sound emitter placed inside the molten metal. This treating process is original because that part of the emitter that contacts the molten metal is made of the same metal, or one of its alloys, as that of the processed metal. The contact part is partially melted by the molten metal, while the other parts of the sound emitter are cooled and remain solid. (Altshuller, 2000, p. 162)

As a person who does not have a background in engineering, I struggled to imagine the technical system described in the example. However, the general principle is easily understandable. The 40 inventive principles seem the handiest tools. Altshuller's notion of the evolution of technical systems appears the backbone of his theory. The following figure evokes what is meant by the evolution of technical systems.

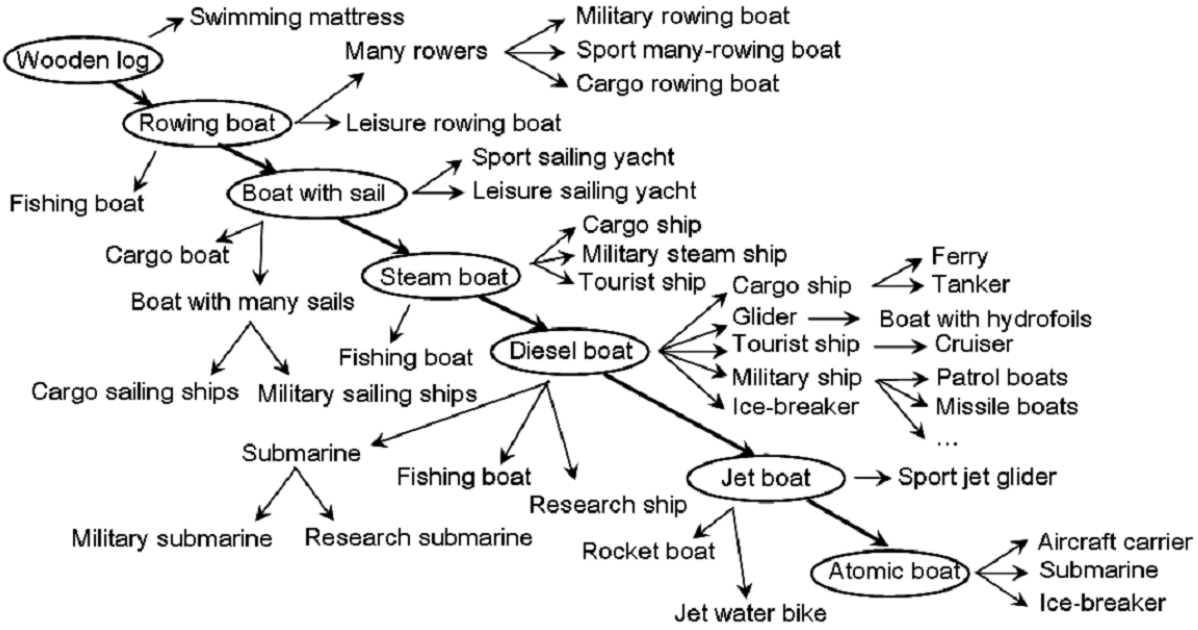

Figure 1: The tree of water transportation (Souchkov, 2013, p. 9).

Technical problems in Altshuller's writings are limited strictly to the manipulation of physical materials. They are engineering problems in a narrow sense. Nevertheless, Altshuller wanted to make the process of solving technical problems accessible to anyone:

> My only intention in this book is to show that the process of solving technical problems is accessible to anyone, important to learn, and very exciting to work through. (Altshuller, 2001, not numbered)

In the literature on TRIZ, TRIZ manifests most prominently as a methodology. In the syllabi for extended TRIZ courses in Vietnam, TRIZ is distinguished from the trial-error approach and psychological methods such as Brainstorming, Method of Focal Object, SCAMPER Checklist, Morphological Analysis, Synectics, Six Thinking Hats, etc. The trial-error approach might work perfectly well in some circumstances; however, in general, as it has no mechanism to direct the problem solver towards the right solution, it is characterized as unreliable, inefficient, and unproductive. The 'existing vector of psychological inertia' prevents the solver from coming to the right (new) solution because it drives the mind to what is previously known. The number of ideas generated per unit of time is limited. As a result, the trial-error approach usually wastes much resources and even costs human lives. Psychological methods are designed to overcome certain habitual ways of thinking assumed as blocks to creativity instead of presenting a systems view towards the problem at hand.

Phan Dũng's focused project. According to Phan Dũng, TRIZ is built upon the idea that creativity follows objective laws rather than only depending on the subjective psychology of human beings.

> It is widely believed that creativity relates mainly to the subjective psychology of human beings. That is true but not enough. There is an objective side of creativity, and creativity

> can appear wherever evolution and development occur. If accepting that where both novelty and utility exist at the same time, there exists creativity, then reality has shown that creativity can happen at the place where subjective psychology of human beings is absent. For example, the evolution and development of biological systems made the appearance of bio-individuals, species more adaptable to their environment and possessing new and useful abilities for survival and development. This is also creativity but human psychology does not take part in this process. It is only when human beings became creative subjects that psychology and human subjectivity participated in the creative process. The essence of the issue is that only those people who grasp the objective laws of evolution and development and manage this psychology (the subjective side of creativity) along them can achieve a high efficiency in creativity. The objective side of creativity in TRIZ serves as a directing mechanism in problem solving and decision making. Thanks to this mechanism the solver can eliminate a considerable number of barren trials not coinciding with the solution's direction. In the ideal case, if the directing mechanism can be built very exactly the solver can use only one trial leading to the solution. In fact it is the heart of the whole problem: one must be able swiftly to reduce the field of enquiry and turn difficult problems into easy ones. Human psychology has a concretely historical character and is not unchangeable. Though TRIZ takes into account present psychology, TRIZ also has the purpose of constructing a new psychology which will work in accordance with systems thinking, directed by objective evolution and development laws. (Phan, 2012b, pp. 165–166)

TRIZ tools have been developed from the field of engineering. According to Phan Dũng, TRIZ's philosophy of universality suggests that extending TRIZ to other non-engineering fields

is a natural process of developing TRIZ, which has actually become a direction of TRIZ research. The philosophy of TRIZ allows us to see creativity as an attribute of non-humans such as natural phenomena and machines, but Phan Dũng's project is not to decentralize the human. He spoke about extended TRIZ as a science of thinking, arguing that this area of science is distinguished from natural sciences and social sciences and usually neglected despite its huge importance.

> There are three areas: nature, society and thinking that should be understood and transformed by human kind during its history of evolution and development. Unfortunately, up to now, thinking has been receiving the least attention. This insufficient attention has served as a deep cause for a great number of tragedies at personal, group, even national and global levels. (Phan, 2012, p. 171)

Phan Dũng appealed to a definition of humans as thinking creatures. Creativity is not only the display of novelty and utility but also a given potential of human beings. His summarized textbook for the basic course of Creativity Methodologies (Phan, 2007) presents the most comprehensive reviews of concepts and methods for creative problem solving I have ever known. The way the contents are organized systematically makes visible a coherent general theory of creative problem solving. Problem solving is no longer limited to the technical manipulation of physical materials. Extended TRIZ applies to every problem. A problem is defined as a situation where a solver knows the aim but does not know any way to reach it or does not know the optimum way to reach it among several known options (i.e. the decision making process). Creative problem solving means overcoming the problem. Phan Dũng's definitions of creativity and creative problem solving (creative thinking) resonate with cognitive psychology. In my view, the textbook displays a cognitive psychology of creativity enriched

with systems thinking and objective evolution laws. Phan Dũng's elaborations on psychological inertia and systems inertia are developed from his APIIC graduation thesis. The psychological methods of creativity are called 'methods to activate creative thinking' and introduced as cases of TRIZ based problem solving rather than instances of a different approach. The standard curriculum of extended TRIZ features TRIZ as the general theory of creativity and other approaches to creativity make sense as particular cases. The ultimate goal of creative problem solving is not creativity but innovation, defined as a process of implementation and inculcation that materializes the mental representation of novelty and utility and integrates this creativity into the given system "stably, sustainably, and fully" (Phan, 2012c). In his lessons, thầy Dũng did not emphasize the adjective 'new' as much as the adjectives 'stable', 'sustainable' and 'full'.

In his teaching, Phan Dũng also presented a broad understanding of TRIZ. TRIZ is a philosophy and a whole science of creativity instead of merely a cognitive psychology of creativity. His rendition of TRIZ into a new version of cognitive psychology specifically serves the practice of using conceptual tools to solve problems and make decisions. The representation of creative phenomena, both human and non-human, into objective laws of creativity results in conceptual tools that can be used to increase the effectiveness of creative problem solving—a human process. However, the site of extended TRIZ does not underline creativity as a trait inside the human being. Tools are externalized or/and extended capacities, and according to the laws of evolution, they should be designed for easy handling and even become automatic. In this way, instrumentality implies equality—not sameness but liberation. It frees human capacities from the order of creativity, though this freedom is not absolute. Thầy Dũng referred to the use of a compass to make circles to illustrate the equality function of a tool. Without the tool, people would draw different circles, which deviate from the perfect mathematical circles. If our aim is

to draw a perfect mathematical circle, a compass would solve the problem. It is so easy to use that almost everyone could use it in the same way and produce the same result. The logic of equality from instrumentality could be seen in how robots and computers have replaced certain areas of human labor and at the same time opened up new horizons for what people do and could do.

Thầy Dũng also re-presented TRIZ concepts so that their relevance moves beyond the scope of the manipulation of physical materials. For example, in Phan Dũng's (1992) *Handbook of Creativity: the Basic Principles*, one of the Vietnamese textbooks for the basic Creativity Methodologies course, and in Phan (2002), the English textbook for the basic Creativity Methodologies course, his presentation of each inventive principle begins with a short articulation of the principle identical with Atshuller's, proceeds with a series of comments suggesting how the terms of the principle could be understood in a broader sense and connected to other problem solving concepts, and ends with a humorous story and a cartoon. The humor added consistently to the presentation of every principle invites flexible and imaginative thinking. The story and the cartoon hint at situations to which the principle does not apply as well as the consequences of not applying the principle when it is needed.

33. Homogeneity

Objects interacting with the main object should be made out of the same material (or material with similar properties) as the main object.

Comments

- The word "homogeneity" should be understood widely, not simply the homogeneity of material as the literal meaning of the principle. The spirit of this principle may be understood that make sure to increase the concordance of the objects interacting with the given object. This concordance is not only in the meaning of material but also of properties.
- The spirit "concordance" has highly directed property in finding, setting the problem and forecasting further development of the object, especially when the object moves to develop at the supersystems level.
- The "homogeneity", in fact, is a special kind of unity of differing objects that permits them work more effectively.
- To create the concordance, primarily exploit resources from the interacting objects, especially free for charge resources in their surrounding environment.

An amusing story

There was a couple quarreling all the time. One day, the husband shouted at the wife in his anger: *"I should have married a monster instead of you"*

The wife replied calmly: *"That's impossible, my dear. Marrying among the relatives is prohibited by law."*

Cartoon

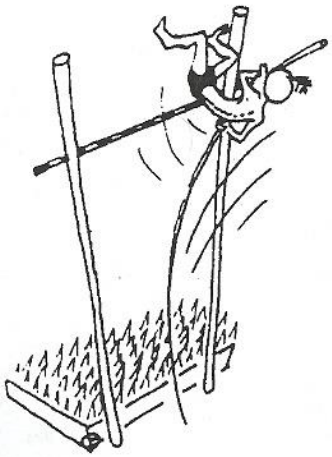

Figure 63

Figure 2: Phan Dũng's presentation of principle 33 (Phan, 2002, p. 106).

In the site of extended TRIZ, the terms of TRIZ, originally referring to the principles of manipulating physical materials, have been mobilized to frame problems in various fields, including social management, marketing, personal health, learning strategies, human relationships, etc.

Extended TRIZ and nationalism. TRIZ makes creativity attainable through methodological use of conceptual tools and hence the theory lends itself to education, often understood as the process of enabling people to do something. Creativity methods and methodologies have gained traction in the context of the knowledge economy. For Tân, it was the discourse of knowledge economy that drove his attention to creativity and TRIZ. In the transformation of creativity into economic values, creativity methods and methodologies have been flourishing mostly in and for businesses. Around the world, TRIZ has been mainly taught in engineering schools, business schools, and businesses that care about boosting their human resources of creativity. TRIZ has been associated with the success of giant US corporations such as Boeing, Hewlett Packard, IBM, Motorola, Raytheon, Xerox, etc. (Jana, 2006). Recently, it has appeared together with the rise of the South Korean multinational conglomerate company Samsung (Shaughnessy, 2013). Predominantly, TRIZ is a high class theory introduced to a limited number of elite people with very high prices. For example, a five-day basic TRIZ workshop provided by Oxford Creativity in 2005 cost £400 per person per day. [24] TRIZ stands in contrast with the popularity of Alex Osborn's brainstorming, Tom Buzan's mind-mapping, and CPS, the procedure of creative problem solving developed by the Center for Studies in Creativity in Buffalo, New York, US. Limiting the popularity of TRIZ is a strategy of competition. Moreover, many people who have known TRIZ think that the complexity and the technical language of the theory are not practical for the general public. Even in Việt Nam, when TRIZ appears in a more accessible language and has been brought to the public, I have met educators who communicated this belief.

[24] Oxford Creativity is a TRIZ training center founded in 1998 by Karen Gadd based close to Oxford (https://www.triz.co.uk/home). The center does not post the prices of its workshops on its public website. I learned about the information from the advertisement Thầy Dũng showed me.

I do not see the teachers protest the knowledge economy. Instead, I see an attitude of riding the wave. In reconciling competition and universality (equality of access), a nationalist-socialist discourse of education takes place.

Aiming to popularize extended TRIZ in Việt Nam, CSTC keeps the price of a regular basic course of Creativity Methodologies very low. Currently, the fee for the standard basic course of 60 hours is only 45 US dollars. The assumption of the universal need of the science of creativity gives rise to the argument that Creativity Methodologies should be made available to more and more Vietnamese people. Educating the science of creativity becomes an issue of universal education. Phan Dũng envisioned that Creativity Methodologies could be taught at all levels of education, from kindergarten to higher education (Phan, 2012a). Extended TRIZ inscribes at the same time a theory of equality that deregulates human creativity (as creativity is extended to and externalized into tools) and a theory of universality that establishes an order of creativity to which everyone is supposed to relate. The education of creativity should not be limited to those who are interested in it but be brought to everyone. Creativity becomes a matter of necessity.

While giving Creativity Methodologies a universal value, extended TRIZ also draws the Vietnamese limit around the education of Creatology, which could be seen as the application of the TRIZ principle of local quality. Việt Nam is portrayed as a country left behind in the development of the world, and it is in need of Creativity Methodologies to solve the problem. Creativity is positioned as a resource that could propel Việt Nam in the competition with other nations to improve its status in the world. Accordingly, the call for the support from the government, specifically the leaders of governmental organizations, including the Prime Minister, the Minister of the Ministry of Education and Training, and university presidents, has

recurred. The anecdote about seven kilograms of TRIZ materials given to the Prime Minister Phan Văn Khải in 1998 to raise his awareness of the need to invest in the education of TRIZ for the sake of developing the country has been well circulated. In 2004, the Ministry of Education and Training formed an advisory committee of science and technology on the issue of Creativity and Innovation Methodologies in Vietnam, chaired by the Minister Phạm Minh Hạc. All the committee members agreed on the need to establish Creativity and Innovation Methodologies as an official academic discipline in higher education in Vietnam (Phan, 2012a). However, until now, no further action has been taken regarding the agreement. The government of Vietnam's support for Creativity Methodologies is evaluated as too little in comparison to the huge potential benefits of extended TRIZ.

It should be noted that the visibility of the discourse of nationalism in the site of extended TRIZ is possible on the basis of both instrumentality and ethical integrity. When speaking about the curriculum of extended TRIZ as a national building project, Phan Dũng and Dương Xuân Bảo identified as Vietnamese. Their narratives of experience with TRIZ and extended TRIZ bring into view ethical considerations rather than automatic subscription to what is popular and fashionable.

Phan Dũng and Dương Xuân Bảo's education in the Soviet Union was part of Vietnam's national building project launched by the Vietnamese government. Phan Dũng's career has been mostly based in a leading national university. Thầy Bảo worked for the Vietnam Ministry of Public Security for many years. They have confronted national building issues that I might not be aware of.

> I returned to Việt Nam in 1975 and was selected to join the Ministry of Public Security. I worked for the Agency of Techniques. At this time, they wanted the Ministry of Public

> Security to be an epitomized government. Our national police was isolated from other nations. Even the ministries of public security among the socialist countries did not cooperate. We needed security technologies to cope with our enemies, and the socialist countries did not help. Our national police and army established agencies of techniques to produce these technologies. Later, in the time of global integration, everything becomes purchasable. Then the productive technological competence of the Vietnamese police has deteriorated. It is very expensive to produce these technologies by ourselves, so the solution is to buy instead of producing them. Secret cameras are now available for purchase everywhere. In the past, the situation was different. At that time, we produced, for example, the security technologies used at our airports. At the beginning, we produced all of them by ourselves. Even the Soviet Union kept his security technologies confidential. He only gave us some guns and weapons, not the technologies that could monitor his influence. (Dương Xuân Bảo)

Thầy Bảo's story seems to fit into the discourse that frames creativity as a national building project launched by the government. However, the Vietnamese government did not send Phan Dũng and Dương Xuân Bảo to the USSR to study creativity. They were given the task to study the established science of physics. Thầy Bảo's responsibility in the Ministry of Public Security served the purpose of monitoring the Vietnamese population and the enemies, not the purpose of unleashing or building up human creative potentials. This is not to say that the Vietnamese government has not supported creativity. The nationalist project of extended TRIZ is not dictated top-down. It results from individuals' self-identification and commitment to do what is good in relation to what is presented to them. In a conversation with me, thầy Dũng once mentioned the fact that in too many people died in the American war and the aftermath of the

war left him responsible for doing something good for the country. Extended TRIZ sits comfortably with education as a national building project through individuals' self-identification with their homeland and their connection with the good. The good is built in the theoretical apparatus of extended TRIZ.

Extended TRIZ and Education as Ethical Subjectification

Good and evil. According to thầy Dũng, a person can use TRIZ for evil purposes, but in this way, the person is not using TRIZ in accordance with the terms of TRIZ. TRIZ directs problem solving to the ideal solution where no harm is caused to the system, its sub-systems and super-systems. Harm done to a location in the system may run to other places unexpectedly. A TRIZ based problem solver adheres to the principle of least harm. TRIZ is positioned against harm. The theory of extended TRIZ calls for and produces the effective and good problem solver. Thầy Dũng repeatedly emphasized that education is not only about earning money but also about becoming good persons. The conception of education as the process of becoming good persons is framed as a Vietnamese tradition of education. As far as I understand, becoming a good person is not reduced to an engineering process. The extension of TRIZ to other non-engineering areas has moved beyond the colonization of an engineering logic over all aspects of life. Interestingly, the adaptation of TRIZ into extended TRIZ has also happened in the opposite direction: engineering terms are translated into ethical terms.

From technical principles to human virtues. I was amazed at thầy Triết's lessons on the 40 inventive principles. Thầy Triết related these 40 technical principles to a system of human virtues. For example, thầy Triết related principle 33 (homogeneity) to the virtue of adaptability, a virtue that allows creatures to be in a harmoniously relationship with their environment. Such a connection follows the principles of TRIZ. Given education is an issue of innovation and the

learner is the current system, innovation requires stable, sustainable, and full integration of the new into the system. For true innovation/education, the acquisition of a new technique must amount to the development of a virtue. I acknowledge that this description retains an engineering sense. However, in my sensibility, the emergence of the cultivation of virtues from the use of techniques escapes the split between the subject and the object. Thầy Triết has a very specific theory of education that contrasts a technical dimension and a natural dimension of education.

> From my point of view, there are two aspects of education. Of course there are many ways to classify education. But let's say in education there are a technical aspect and a natural aspect. The technical aspect focuses on technical manipulation, which does not entail a change in human consciousness, especially a change that has been solidly integrated into the consciousness. The natural aspect focuses on the profound nature of understanding and competence, which entails a profound change in human consciousness. From a technical language to an educational language is the way to see the true values of the tools and knowledge that we are using. (Vương Huỳnh Minh Triết)

Thầy Triết presented a TRIZ based theory of education in which educational progress moves from to the use of a set of instruments to the creation of ourselves—the development of ethical virtues. This kind of progress differs from the learning progress assumed by cognitive psychology. In cognitive psychology, learning progresses towards the automatization of skills and from simple skills to complex skills. Thus, a problem solver who is fluent in using the principle of homogeneity to solve problems does not imply a person who adapts to his environment and lives harmonious with it. The automatization of technical skills differs from the naturalization of ethical virtues. While I am not sure if thầy Triết agrees with my interpretation of his theory, I see a distinction between a technical and a natural dimension and understand that

TRIZ is not only technical. I have struggled to understand the natural dimension of TRIZ as it appears to me from my encounters with the teachers of extended TRIZ. While speaking about the natural dimension of TRIZ, thầy Hưởng made a connection between Western philosophy and Eastern philosophy.

> The subject of psychology is the human. Psychology examines how human beings act and react. In fact, there are problems that are not posed by human beings and exist independently from human subjectivity. If we just observe human beings, we cannot deal with these types of problem. Besides understanding the psychology of human beings, we also need to attend to the laws of nature. This resonates with Eastern philosophy, the concept of *Tao*. Everyone has to follow *Tao*. *Tao* is indeed the natural process of the universe. I find in this subject a high level of generality. (Trần Thế Hưởng)

Tao is a key concept of Taoism. Cosmologically, Tao signifies the underlying natural order of the Universe whose ultimate essence is difficult to circumscribe due to it being non conceptual yet evident in one's being of aliveness. Tao presents an active and holistic conception of Nature that differs from conventional western ontology.

As thầy Bảo discussed his writing of business slogans using TRIZ, no technical term was mentioned. He did not follow any given procedure. In response to my question of how he knew what he knew and how he created what he created, he just said that: “I do not know. I am not talented. They just come to me.” The methodological sense of TRIZ was erased. Thầy Bảo kept labeling every of his slogans as a Baku solution, a reference to TRIZ. For him, TRIZ has become a natural way of living.

Concluding Remarks

In this chapter, I have featured curriculum development as a process of localization—the coming together of discourses into a configuration. Most prominent in the site is the discourse of love, a specific intelligibility of love in which love differs from desire and fantasy. Love entails the courage to attend to a relation, to form oneself with this relation, to announce what one appreciates and believes, and to extend oneself to others. Love anchors what has been done, to the extent that curriculum development in this specific case appears as the process in which the person in love constructs himself as a teacher, integrating into as well as generating the sensible of creativity and education. The discourse of love goes together with the discourses of ethics, scientific methodology, and nationalism, making a grid for how creativity and education make sense. Extended TRIZ produces a space for different understandings of creativity and education—different possibilities of subjectivity.

Despite the wide range of possible subjectivities that the curriculum of extended TRIZ allows, the curriculum also has limiting effects. To illustrate the enabling and limiting effects of the curriculum, in the final words of this chapter, I want to tell a story about my personal experience with TRIZ. In 2003, I participated in a group of TRIZ lovers. This group had no restrictions on membership, but the discourse of love spoken in the group attracted only TRIZ lovers—I was among them. Until now, I still find TRIZ fascinating. TRIZ draws my attention to the exciting phenomenon of creativity. The laws of creativity propose a way of analyzing things of the same functions, putting them along a line of evolution towards ideality, and imagining what comes next along the line. The line of evolution brings things that have not existed in the world into my imagination. This process of norming (arranging things along the line of evolution of ideality) opened up a new horizon to me. On one hand, it helps me find problems. I see how

functional things are far from the ideal situation and the possible ways to improve them. On the other hand, it lets me see how many things around me are creative solutions and urges me to stop taking them for granted. The objective laws of creativity are objective in the sense that they start from locating creativity in what is observable rather than something abstract in the human's inner capacity. I do not think these laws are natural in the sense of being deterministic. I also understand that it is not always beneficial to use systems analysis. This is perfectly in line with the spirit of TRIZ because TRIZ directs our attention to the scope of application when using a particular principle.

In the group of TRIZ lovers, each person exhibited a distinctive personality, and we spoke about TRIZ in various manners. I spoke about TRIZ as I have just done, and I got understood, though some people disagreed. Once I argued that creativity does not necessarily involve utility and problem solving. A transient moment of surprise can be an instance of creativity that is not related to utility and problem solving. I guess my audience at the same time understood and did not understand what I was saying. They understood every word and sentence I uttered, but they did not see the value of seeing creativity as not a matter of utility and problem solving. I could only say that it is just a different way of seeing creativity. I then stopped suggesting a different way of seeing creativity because I thought it was not relevant. People were interested in one particular way of understanding or perhaps the best way of seeing the world rather than different perspectives. In this chapter, I have tried to be critical instead of being normative, though I understand that being normative can also generate inspiration and new ways of thinking and seeing.

CHAPTER 4

ARTS AS CREATIVE SUBJECTS: WHAT IS CREATIVE ABOUT ART?

I criticize the very opposition between art and discourse on art. Art does not exist in itself; it is an outcome of a complex set of relationships between what one is allowed to say, to perceive, and to understand. Events and objects only exist within the fabric of discourse, and are perceived as art, or a revolution in art, only within this fabric.

~ Jacques Rancière, in Thomas (2015, para. 2)

Introduction

In schools, art subjects are usually called 'creative subjects', suggesting that art is defined by creativity. What is creative about art? In this chapter, I am interested in how art has been thought of as art, i.e. how art has been theorized as a distinct area or modality of life. From the theorizations of art, we will see the different ways in which art has been and could be related to creativity and education. The interest has directed my attention to the debate on 'art for art's sake' in education. I assume contrasts between 'art for art's sake' and instrumental justifications for art in education. Surprisingly, current mainstream discourses of art education tend to inflect 'art for art's sake' with instrumental qualities.

This chapter examines the scene of Discipline-Based Arts Education (DBAE) in contemporary US and critiques the instrumental setup of 'art for art's sake' endorsed by DBAE. Art in DBAE's 'art for art's sake' is a restricted area of life defined by established knowledge. In this sense, the creativity of the arts aligns with the neoliberal regime of creativity, and this chapter presents another scene of the neoliberal regime of creativity in education.

What is more important in the chapter is an alternative framework to think about 'art for art's sake' from Rancière's theory of politics and aesthetics. According to this alternative

framework, what is specific about art is not the artist's act of creation and their well-recognized achievements but the aesthetic experience—a powerless mode of experience that does not easily lend itself to the notion of creativity. However, art, as identified by the aesthetic regime of art, entails a radical heterogeneity of sensory experience. Doing art involves inventing new political communities of sense. Creativity in aesthetic art could be understood as the arrival of political communities of sense, which is actually not limited to art. Surprisingly, if I only attend to the separateness of art from other spheres of experience, then art is not characterized by creativity.

When claiming Rancièrean 'art for art's sake' in education, education can become aesthetic art. This chapter calls attention to the fact that DBAE identifies education on the assumptions of inequality and consensus and hence makes Rancièrean 'art for art's sake' and education theoretically impossible. It also suggests ways to imagine education as aesthetic art.

Art for Art's Sake in Discipline-Based Arts Education

In 2013, OECD released a publication titled *Art for Art's Sake? The Impact of Arts Education*. The report explores the question of whether arts education helps to cultivate desirable attributes for the workforce in knowledge-based economies. It inquires into research databases in education and psychology in Dutch, English, Finnish, French, German, Italian, Japanese, Korean, Portuguese, Spanish and Swedish. The kinds of arts education examined include arts classes (classes in music, visual arts, theatre, and dance) and arts-integrated classes (where the arts are taught as a support for an academic subject) in school as well as arts study undertaken outside of school (e.g., private music lessons; out-of-school classes in theatre, visual arts, and dance). The outcomes of arts education are categorized in three areas, academic skills in non-art subjects, thinking and creativity, and social and behavioral skills. Interestingly, the authors

remind us that the primary justification of arts education should be in the intrinsic value of the arts and the important habits of mind they promote.

> In conclusion, we argue that, even though we find some evidence of impact of arts education on different kinds of skills, the main justification for arts education is clearly the acquisition of artistic habits of mind – the current priority objective of arts education in the curricula of OECD countries. By artistic habits of mind, we mean not only the mastery of craft and technique, but also skills such as close observation, envisioning, exploration, persistence, expression, collaboration, and reflection – the skills in thinking and creativity and the social and behavioural skills that are developed in the arts. (Winner, Goldstein & Vincent-Lancrin, 2013, pp. 19-20)

The OECD slogan ‘art for art’s sake’ assumes a divide between art and non-art disciplines and that art disciplines allow students to engage with life in a different way. For instance, because arts do not force right or wrong answers, they free students to explore, experiment, and find their personal meanings in a way that non-arts do not afford. The OECD ‘art for art’s sake’ argument asserts that art should serve life, which is opposed to the original meaning of ‘art for art’s sake.’ In the history of Western art, the slogan first surfaced in French literary circles in the early nineteenth century and later became central to the British Aesthetic movement. ‘L'art pour l'art’ is often credited to Théophile Gautier (1811–1872), French art and literary critic, who defined it as follows: “Art for art's sake means for its adepts the pursuit of pure beauty–without any other preoccupation” (“Art for art’s sake,” 1917, p. 98). This definition is Kantian. Kant’s aesthetics holds that enjoyment of beauty is distinct from other sorts of pleasure and taste. If someone responds to Botticelli’s Venus with an erotic desire, they are not appreciating the work of art for its beauty. To appreciate the beauty of an object, the spectator’s

response has to be disinterested. For Kant, making sense of an object can be done in three ways. In the first of these, the faculty of signification subordinates the faculty of sensation. This is the order of knowledge. It defines a certain view of the object. The spectator would ask what story the painting tells. In the second way of making sense, in contrast, the faculty of sensation rules over the faculty of knowledge. This is the law of desire. The third way of looking appreciates the object neither as an object of knowledge nor as an object of desire. The disinterestedness results from the harmony between the faculty of knowledge and the faculty of sensation. Kant distinguishes 'the agreeable', the category of pleasures judged pleasures for me but not necessarily for others, from 'the beautiful', the category of pleasures judged pleasures for everyone. Only judgments about what Kant calls the beautiful are aesthetic judgments. Proponents of 'art for art's sake' sympathized with Kant's aesthetics. They assumed the aesthetic experience is stimulated by the form and design of the art work and demanded the spectator have sufficient disinterest to distinguish between feelings provoked by an art work's subject matter, and, in their view, its more important qualities as a work of beauty in itself. 'Art for art's sake' was viewed as an attempt to divorce art from life and elevate it to an autonomous sphere of its own. The attempt, starting with the Romantic Movement originating in Europe toward the end of the eighteenth century, has brought various art forms together under the singular 'art', the subject of a new discipline, aesthetics. As Chapter 2 has indicated, the forming of the aesthetic regime of art marked a turning point in Western understanding of creativity. From an exclusive property of God/gods, creativity became an attribute of human artists.

The prominence of the instrumental qualities of 'art for art's sake' is a contemporary phenomenon. In light of Rancière's philosophy, this section tackles how the discourse of Discipline-Based Arts Education (DBAE) in the US has made the instrumentality of 'art for art's

sake' sensible through its theorization of art. I present an overview of the ways DBAE constructs art in terms of knowledge and then a critical interpretation of the assumption of inequality and the rules of identifying art underlying such knowledge-based approaches to art. How DBAE connects creativity with art is also discussed.

An Overview of the Discipline-Based Arts Curriculum

In DBAE, art disciplines are classified based on art forms or art activities. The arts outlined in the OECD report include music, visual arts, theatre, dance and multi-arts. In the US, arts education standards use similar categories (music, visual arts, theater, dance, and media arts). Literature, an art form that works with words, is not usually named among the arts in arts education. Literature belongs to language arts, which is traditionally regarded a different realm in the structure of school curriculum, perhaps for the traditional significance of words as a means of expression. Culinary art is almost absent from the school curriculum, which is a curious case.[25] The partition of art into art forms corresponds to the theory of the autonomy of modern art as a process in which each art form develops and progresses by becoming aware of its medium specificity. For example, Clement Greenberg (1909-1994), a famous developer of the theory, argued that progress in the history of painting is identical with the conquest of flatness. The partitioning of art into art forms provides arts with a knowledge base and construes the arts as knowledge disciplines.

[25] Insights into the case might be gleaned from Fendler, L. (2012). The educational problems of aesthetic taste. *Zeitschrift für Pädagogik, 58,* pp. 66-80. Special issue on Materiality and Education, [Die Materialität der Erziehung: Kulturelle und soziale Aspekte pädagogischer Objekte.] Karin Priem, Gudrun M. König & Rita Casale, (Eds.).

Another common way to divide the art field results in its four major disciplines:[26] art making, art criticism, art history, and aesthetics (the philosophy of art). Descriptions of the territories of arts education often combine the two classifications. Modern education has been partitioned in disciplines (school subjects): there are art disciplines and non-art disciplines. Each discipline is viewed as a structure or a domain of knowledge. Given a map of disciplines that define school subjects, two curricular approaches to art are named: the arts curriculum and the arts integrated curriculum. The former, currently understood as an art-for-art's-sake approach, is dedicated to the study of the arts whereas the latter describes the use of the arts as vehicle for learning non-art contents. The US national conceptual framework for arts learning published in (NCCAS, 2014) expresses an ambition to implement comprehensive arts education so as to develop students' artistic literacy in all the art disciplines. The document does not indicate explicit preference for the arts curriculum or the arts-integrated curriculum. Nevertheless, the arts-integrated curriculum has been fundamental to arts-based education reforms. For example, the A+ Schools Program,[27] the largest arts-based school reform effort in recent history, aims to weave the arts into every aspect of a child's learning. The present arts integration movement emphasizes the study of art contents as an equivalent goal. ArtsEdge, the official website of the Kennedy Art Center, an important resource for arts integration in schools in the US, distinguishes the arts integrated curriculum from the arts enhanced curriculum, where only the non-art contents are considered the goal. ArtsEdge defines arts integration as follows:

[26] The first advocates of DBAE used these four 'disciplines' to formulate their definition of DBAE. Later, when 'arts integration' becomes a buzzword, the art forms are featured. The use of the four disciplines makes 'art making' less prominent. The use of the art forms tends to emphasize active competences over propositional knowledge.

[27] Over ten years and expanding to forty-two schools in North Carolina, Oklahoma, and Missouri, the reform works to increase arts instruction and arts integration in schools. Its proponents claim that it has been highly successful.

> Arts integration is an approach to teaching in which students construct and demonstrate understanding through an art form. Students engage in a creative process which connects an art form and another subject area that meets evolving objectives in both. (ArtsEdge, 2015, para. 1)

As evidenced in this example, the arts-integrated approach is derived from the conception of art as a distribution of art disciplines and the current arts based education reform calls for intensifying disciplinary knowledge of the arts in every aspect of education. Together, the arts curriculum and the arts integrated curriculum have formed a broader paradigm of arts education named 'discipline based arts education' (DBAE). In the paradigm, art consists in disciplines and the purposes and resources of arts education are described in terms of knowledge. References to art disciplines and the acquisition of knowledge might have been incorporated in various paradigms of arts education, and the frame seems to have been quite an obvious choice for professionals in the arts since the nineteenth century. The DBAE I refer to, however, extends to a general body of students. It claims arts for all. At present, the paradigm is influential in many countries in the world; within the scope of this essay, I focus on the context of the US, where, historically, it has come to public attention since 1980s. DBAE joined the standards-based reform movement initiated by the US Congress in 1994. It became associated with the discourse of global knowledge economy. The term DBAE, an acronym of 'discipline-based arts education' or 'discipline-based art education', gained traction during the 1990s. It encompassed all the field of arts education. In the twenty first century, 'arts integration' has become a buzzword, and DBAE appears less in the discourse of arts education. This essay adopts DBAE to refer to the dominant discourse of arts education from the 1990s up to the present because I view the new

arts-integrated curriculum as disciplined-based and aim to address both the arts curriculum and the arts-integrated curriculum.

Looking at the discourse from Rancière's point of view, we see DBAE establishing a distribution of the sensible of arts education. DBAE circulates and naturalizes what is sensible about arts education. It seeks to replace the creative self-expression order of arts education, which is said to have thrived from early to mid-twentieth century. The creative self-expression order attributes the value of art to the child's original personal expression. On the surface of the sayable, the central tenet of the order is a theoretical caution against knowledge. This does not mean that the paradigm is against the development of knowledge. Instead, it means that creativity and the child's personal growth have more merit than what can be encompassed by knowledge. Knowledge always starts with rules and might hamper creativity. Dobbs (2004) offered the following description of the creative self-expression order:

> Creativity and self-expression theory cherished the untutored and naive emanations of child art, which many art specialists believed would be contaminated by even talking about student work. Art's capacity to provide unique contacts with and learning about the works of art of mature artists was subordinated to art's capacity to reinforce the goals of child development. Few efforts were made to utilize the vast heritage of world art for such learning tasks as understanding its role in human history; nor were questions of aesthetic content or import raised with children lest art be "intellectualized." A bias against reading or talking about art (basically against anything that seemed "academic" or made art resemble other subjects) caused defenders of the paradigm to retreat to soft stances regarding the mystique of art and its essentially nonacademic character. (p. 705)

The creative self-expression order of arts education also draws the line between arts and non-arts and defines proper arts education. Its rule of propriety is different. The present DBAE paradigm does not reject the language of creative self-expression; it appropriates it into a framework that prioritizes knowledge over self-expression. To be educated in the arts implies the ability to do arts or to speak about the arts in a knowledgeable way. DBAE displays the slogan 'art for art's sake' and puts the work of art, rather than the student, at the center of the art lesson. Art is still defined by creativity, but creativity has become synonymous with measurable competences in the arts rather than the individuality of the student. In national, state and district-level standards for each art form for prekindergarten through grade 12, the objectives and indicators prescribed for curricular programs are described in terms of competences and specific tasks that students should be able to perform successfully. To ensure quality arts education, it is mandated that teachers have certified knowledge of the relevant art forms and arts instruction. Presumably, the teacher is in a position by virtue of expertise to assist the student. Competence is seen in terms of knowledge. From a pragmatic point of view, knowledge is an instrument of action. It is associated with the ability to do something well to the extent it equals 'skill', 'expertise', 'literacy', or 'competence'. Knowledge means the learned ability to carry out a task with pre-determined results within a given amount of time and energy.

The shift from the creative self-expression paradigm to DBAE refigures the space of arts education. According to Dobbs (2004), the creative self-expression paradigm took root in the early twentieth century based on the effort of educators who advocated art for its value as relief from the rigors of the academic curriculum, its potential for nurturing children's expressive life, and the opportunities offered in art for 'making' and creative work. Other areas in the curriculum did not host these goals, so they went to art. However, schools did not necessarily value play and

self-enrichment, and art occupied a modest partition in most school programs. The arts have been slipping from the curriculum to give space for the STEM, the academic disciplines of science, technology, engineering, and mathematics. STEM is a prioritized choice to improve competitiveness in a knowledge economy. Whether starting from the marginalized position of the arts in the curriculum or not, proponents of arts education argue for the fundamental value of arts education and strategically associate the arts with the global knowledge economy. As much as it is a new invention, DBAE is a movement back to the foundations so that art can be firmly rooted in education. Although DBAE dwells on the divide between arts and non-arts and underscores the importance of arts, the discourse is shaped by the language of science, especially that of psychology. Psychology has offered education formulas for effective instruction and rigorous, objective evaluation of knowledge. Within DBAE, artistic performances, appearing as sensory presentations, are attributed as competences through preordinate procedures. The shift in the meaning of creativity in DBAE reflects the influence of the cognitive approach to creativity in psychology (see Chapter 2).

The formation of DBAE in the United States has been made possible through the practices of various speakers including policy makers, philanthropic organizations, scholars, teachers, etc. Their speeches present variations of knowledge based arts education. Among the most prominent speakers about DBAE, Elliot Eisner (1933-2014) secures a position. I feature Eisner to showcase a particular speaker whose speech makes sense in the distribution of the sensible. Eisner promoted the term ‘discipline based art education’ as a reference to a comprehensive interdisciplinary approach characterized by systematic and sequential learning experiences in four distinctive domains of art (art making, art criticism, art history and aesthetics). Despite being skeptical towards standards-based arts education and indifferent to the

economic benefits of arts education, Eisner passionately endorsed a cognitive vision of arts education that is compatible with DBAE. In this vision, the arts are different forms of representation that require different forms of intelligence to engage with. Different art forms demand the use of different techniques and an understanding of the materials and ideas to be used. Important is the competence that the artist develops in an art form. Eisner regarded competence as intelligence in the domain. Eisner's cognitive view of arts education makes the point that artistic work is not only about emotion and the hands but also about insight and the mind. When articulating the distinctive features and values of the arts, Eisner, like many other proponents of arts education, appealed to the embodied/somatic knowledge that the arts allow. The arts are associated with empirical experience whereas hard subjects such as mathematics and science with technical rationality. Eisner also highlighted that the heterogeneity and unpredictability in the outcomes of arts education does not fit in predetermined objectives. The term 'flexible purposing' was borrowed from Dewey to refer to a characteristic of artistic work and a desirable feature of education that resembles or supports art. Another contribution of Eisner's is to recommend using criteria as a means to provoke responses to students' works of art. Eisner called attention to three criteria: technical quality, inventiveness, expressive power/aesthetic impact. In summary, although Eisner's version of DBAE is softer than policy makers', Eisner's argument in support of arts education is primarily couched in terms of knowledge and representation. It inscribes an instrumental meaning for 'art for art's sake' as well.[28]

The curriculum emerging in a particular classroom might be very different from the curriculum dictated by policy makers or the dominant discourse. However, if the meaning of art as produced by DBAE enters the classroom, it would certainly shape arts education practices.

[28] Eisner's presentations may be using instrumentalist arguments for strategic rhetorical purposes.

Rather than disturbing an existing normal order, DBAE is molding a social ethos of the arts. The problem is that in this common world, only inequality is possible. Art and education become instruments of inequality.

DBAE as a Representative Regime of the Arts: The Reproduction of Inequality

Rancière's writings on politics and aesthetics examine the historical modes of intelligibility and visibility we live in. Rancière's critique of discourses elucidates how our thinking constructs hierarchies and how equality as a theoretical setup can transform the way we see and engage with the world. While Foucault is primarily concerned with knowledge as a status of statements in a historical episteme, Rancière attends to both the visible/perceptible and the sayable/intelligible in 'a distribution of the sensible', also a 'police order'. To critique in a Rancièrean manner is to question how DBAE's theoretical apparatus is founded upon inequality/equality and the extent to which it makes room for the redistribution of the sensible. We approach DBAE as a regime of identifying art and education. This section examines how the discourse of DBAE, as a representative regime of identifying art, assumes hierarchies and reproduces inequality. It also discusses the nature of education and the relationship between education and art in DBAE. These gestures point to the intelligibility of an instrumental meaning of 'art for art's sake'.

To provide a conceptual background for our critique, I insert here a summary of Rancière's theorization of the regimes of art, which not only sheds light on the problem of inequality in the way DBAE identifies art but also shows us an alternative regime of identifying art, 'the aesthetic regime of art'. In Rancière's language, a regime of art defines the configuration of various conditions that make it possible for words, shapes, movements, and rhythms to be felt and thought as art in an epoch. Rancière distinguishes three regimes of art: the ethical, the

representative, and the aesthetic. In the ethical regime of art, which should actually be called the ethical regime of images, works of art have no autonomy. Viewed as images, they are questioned for their ontological veracity, the truthfulness with which they accurately represent an ideal model, and their effect on the ethos of individuals and the community. For Rancière, the conceptual apparatus of the ethical regime of images is most precisely articulated in Plato's *Republic*.

Aristotle's *Poetic*s is Rancière's standard reference for the representative regime of art (the arts). In the representative regime, works of art belong to the sphere of imitation. Imitation, *mimesis*, does not mean the copy of reality. It is the representation of actions or ways of imposing a form on matter. The representative regime of art is governed by "the concordance between a form of intellectual determination and a form of sensory appropriation" (Rancière, 2010b, p. 210). Art is the work of form that imposes its law on matter. The rules of art are supposed to align with the laws of sensibility. The pleasure experienced is seen as a verification of the adequation of the rules. *Mimesis* is the agreement between a productive nature, *poiesis*, and a receptive nature, *aisthesis*. The guarantee of this agreement is human nature. This human nature is split: the fine arts distinguish people of refined sensibility from the coarseness of the masses.

The aesthetic regime of art, staged in the modern period over the last two centuries, dismantles the intrinsic norms of the representative order. With the aesthetic regime, the knot between *poiesis* and *aisthesis* is undone.

Rancière emphasizes the historical nature of the material conditions and the thought patterns that characterize each regime. At the same time, the three regimes present three ways of identifying art that can coexist in the same historical period. There is no historical point of

rupture on the basis of which it became impossible to do art in the old fashion and necessary to do it in a new mode. To make a distinction between regimes is "not to say that in 1788 art was part of the representative regime and, in 1815, part of the aesthetic regime" (Rancière, 2010b, p. 210). The distinction defines not epochs but modes of perception and of intelligibility.

Returning to the discourse of DBAE, we see how it prioritizes the activity of the work of art by forcing it to display competences. The work of art is valued because it is actively created by the artist. The perception of the work of art traces back its production. Let's look at Eisner's guide for assessing art based on the three criteria (technical quality, inventiveness, aesthetic quality) in more detail:

> By technical quality I mean the extent to which the material with which the students work has been handled with control and understanding. It also includes the extent to which the forms that are used display an intelligent use of technique. Put another way, do the techniques employed support what the work is intended to express; is there a consonance between the two?
>
> By inventiveness I refer to the productive novelty the work displays: Does the work say something new or say something quite familiar in a new way? Put another way, does the work reflect a creative use of idea or process that relates constructively to its expressive intent? Is the work imaginative?
>
> Finally, we are concerned with a work's expressive power, its aesthetic impact. The ability to create work that is satisfying aesthetically is and has been a prime artistic value. The achievement of such qualities is largely related to the ways in which forms have been composed and technique handled. In assessing the quality of student work these three features can serve as criteria for assessment. Criteria are features that one can

look for in a work; they are not fixed descriptions that obey some formulaic recipe. Technique, inventiveness, and expressive power can be realized in an infinite number of ways. Their identification here can serve as criteria to guide our search, not as prespecified features that obey a fixed set of rules. (Eisner, 2004, p.183)

How the teacher perceives a work of art determines the student's competence. It matters to figure out what the work of art tries to say. Speech or intelligibility is privileged over visibility. The concordance required between the artistic techniques (form) and the message of the work of art (subject) assumes a stable relationship between the visible and the sayable. The teacher's aesthetic experience is linked to the active work of form. Eisner did present a fixed set of rules in which sense must be in agreement with sense. He was positive about the infinite number of shapes artistic performances can embody in conforming to the rules. The student might know how contingency rather than competence has participated in the artistic process. Nevertheless, as s/he thinks of it in terms of competence, at stake, there is a set of rules to attribute sensory presentations to competences.

Although our current art disciplines are different from those in ancient Greece and the medieval time in Europe, the discourse of DBAE presents a way of identifying art similar to the representative regime of the arts. At the heart of a representative order of art is a system of rules to govern artistic practices. We can say that a representative order of art is knowledge-based. These rules determine the sphere of art. In DBAE, art is seen in contrast with non-art, not with life. As a result, 'art for art's sake' means that the domain of art is also a significant domain of life. An important feature of DBAE is the intensified role of knowledge. Knowledge is valorized over the experience of pleasure in creating, appreciating and understanding art. While situating the need to develop artistic competences in the context of economic globalization, DBAE links

the arts with creativity, but creativity in DBAE is a form of knowledge. Rather than a capacity to transform the world, it is a capacity to adapt to a given world. We also see within DBAE the acknowledgement of how art can change the world. Making reference to stunning achievements of art, Eisner (2004) talked about works of art that changed the world. That knowledge is needed to change the world makes sense. However, if knowledge is used to frame the world, the world is a world of inequality. Theoretically, the redistribution of the sensible on the basis of knowledge does not escape inequality and division. It presumes that the sensible still follows the rules that define its distribution. DBAE assigns competences to bodies and bodies to positions, following the law of meritocracy. If education is to train and certify competences, this qualification has the purpose or/and the effect of socialization. It inserts people into a hierarchy. Knowledge of the arts is helpful for disadvantaged groups to advance socially, but the logic of social mobility presupposes inequality.

For Rancière, the only way to escape inequality is to assume equality, to be *as if* everything were equal. Equality relies on dissensus, the 'commensurability of incommensurables' (Rancière, 2009b, p. 11). On the ground of dissensus, bodies that are assigned to 'proper' places and functions can appear or act as if they were free of order. Politics is the redistribution of the sensible on the assumption of equality, not the reordering of power relations between groups as it is usually understood. From a Rancièrean perspective, the discourse of DABE is policing and depoliticizing the artistic experience. While developing common frameworks and rules to align diverse arrays of entities, it enforces a vision of a common world and strengthens the frames that define boundaries and allocate competences and positions in this world.

Rancière's Intervention in Aesthetics: Equality and Art's Specificity

As art is connected to education through the notion of knowledge/competence, it is encapsulated in the logic of the representative order. This section describes the theoretical apparatus of the aesthetic regime of art as conceived by Rancière. In other words, it presents Rancière's making sense of how art has been identified in the last two centuries. Artists and art theorists are have been proposing a variety of ways of identifying art that reinforce inequality, but the variety of things that have been identified as art make visible that works of art are not defined by a predetermined set of intrinsic norms. Rancière's theorization also addresses the fact that Kantian aesthetics has been used to characterize the autonomy of art since the end of the eighteenth century, and this characterization of art is currently under attack. Many art theories are pointing to 'the end of aesthetics'. They argue that the identification between art, autonomy, and modernity collapsed in the last decades of the twentieth century, when new forms of social life and community culture, along with new techniques of production, reproduction, and communication, made it impossible to maintain the boundary between artistic production and technological reproduction, autonomous artworks and forms of community culture, high art and low art (Rancière, 2009a). Rancière's intervention in aesthetics invents new meanings of aesthetics and refigures the visibility of art. Particularly, it allows us to see equality.

The aesthetic regime of art illuminates the possibilities inhibited by the discourse of DBAE: the free invention of forms, the free re-inscription of meanings, and the aesthetic free play. It also figures in an understanding of 'art for art's sake' that strongly rejects the very idea of a pure art without committing itself to instrumentality. By opening up a gap between *poeisis* and *aesthesis*, the aesthetic regime of art connects art to life. This connection does not signify the loss of the autonomy of art. The identification of art no longer occurs via a distinction of

ways of doing and making but through a radical heterogeneity of sensory experience that includes the aesthetic experience. While art is distinguished from life based on the aesthetic experience—a mode of experience that is exceptional to the normal distribution of the sensible, the work of art also connects with the indiscernibility between art and life. At the site of the work of art, a specific cutting out of space and time identified as aesthetic art, there is the interplay between the aesthetic experience and other forms of intelligibility and visibility. For Rancière, doing art involves inventing new political communities of sense. I argue that creativity as specific to aesthetic art could be understood as the arrival of new political communities of sense.

In this section, initially, I introduce Rancière's conceptions of community of sense, ethics, aesthetics, and politics and briefly describe the aesthetic regime of art in relation to these terms. To continue, I elaborate on the specificity of aesthetic art. Next, I discuss Rancière's conception of political art and fiction as well as creativity as the arrival of political communities. Finally, I touch upon how 'art for art's sake' and education can come together.

Leaps of Imagination about Aesthetics and Politics

It has been mentioned in the introduction of this dissertation that Rancière's critique of discourse is organized around the concept 'distribution/partition of the sensible'. A distribution of the sensible is a community of sense.

> I do not take the phrase "community of sense" to mean a collectivity shaped by some common feeling. I understand it as a frame of visibility and intelligibility that puts things or practices together under the same meaning, which shapes thereby a certain sense of community. A community of sense is a certain cutting out of space and time that binds together practices, forms of visibility, and patterns of intelligibility. I call this cutting out of this linkage a partition of the sensible. (Rancière, 2009a, p. 31)

An ethical community is a consensual distribution of the sensible in which things are identified by their place and subject to the law of the inside or the law of the outside.

> The ethical must be understood from the original sense of *ethos*. *Ethos* first meant *abode* before it meant the way of being that suits an abode. The ethical law first is the law that is predicated on a location. An ethical relation itself can be understood in two different ways, depending on whether you consider the inner determination of the location or its relation to its outside. (Rancière, 2009b, p. 3)

The law of the inside is a distribution of the sensible that combines the sharing of a common property and the distribution of alternative capacities. The ethics of the Other is the law of the outside. It describes the figure of an outsider "as the figure of the immeasurable or the un-substitutable from which all that is measurable or substitutable, connected according to a law of distribution, has to take its law at the risk of being cancelled by it" (Rancière, 2009b, p. 4). An ethical distribution is the distribution of the same, the different, and the Other.

Let's look at the regimes of art in relation to Rancière's formulation of an ethical/consensual community of sense. The representative regime of art consists of a set of rules that defines the terrain of art and all the sensory materials that have appeared as art in accordance to the rules. These sensory materials or various objects of art have their proper place in the community of the sensible of representative art. As an illustration, tragedies have a higher position than comedies, and they are considered art because they are formed by artists in accordance to their purposes and the laws of sensibility. The forms of intelligibility and visibility that constitute a specific work of art are configured based on the rules of the representative regime.

The aesthetic regime of art as conceived by Rancière also identifies art according to a set of principles. It has also emerged from a historical context and exists as a specific cutting out of space and time. Paradoxically, in its own theoretical apparatus, there is no split between the inside and the outside, and the work of art is identified on the basis of its break from an existing distribution of the sensible instead of intrinsic norms—a break that is characterized by equality—also understood as aesthetics, the dismantling of ethical legality.

The aesthetic dimension of anything (not necessarily specific to art) in Rancière's philosophy means the dismissal of both the inner law of distribution and the law of the Other. It dismantles ethical legality in three terms: the rule of the common ethos, the rule of the distribution of alternative parts, and the power of the Other. This dismantling results from "the count of a supplement to the parts that cannot be described as a part itself" (Rancière, 2009b, p. 3), which is termed 'dissensus'. In other words, it comes from equality, sheer contingency. Dissensus—the parts that have no part—assumes that things are not fully determined by their historical space and time (location)—they do not always behave in accordance with the established rules of the ethical community that identify them. It is possible to say Rancière's formulation of the aesthetic dimension is a theory of change where change is discontinuous. A very little change in a distribution of the sensible might be a dismantling of enormous and complex systems of rule simply because it does not follow any rule. The aesthetics of redistributing the sensible is a flash that opens up a universe. A universe is not a big container that contains everything according to the logic of inclusion. The universal is not the common thread that runs across and connects everything. Universality is the moment where boundaries and hierarchies collapse—when ethical legality is dismantled. A political community is a community divided by itself rather than divided into parts. It is a dissensual distribution of the

sensible in which dissensus is displayed—revealing the capacities of things denied by the consensual distribution of the sensible from which it arises. It exhibits the rules of the police order and the collapse of these rules at the same time. The political redistribution of the sensible on the assumption of equality theoretically differs from the arousal of affect or effect that upsets the anaesthetic, the humdrum, the banal, or the routine. What Rancière cares about is the dismantling of the rules of the ethical community, not just the affect or effect by itself. The political redistribution of the sensible is the rearrangement of the set of perception between what is visible, thinkable, and understandable, and what is not. This rearrangement is possible not on the basis of any predetermined law but on the basis of equality.

Politics is possible by means of aesthetics/equality. That is what Rancière means when referring to 'the aesthetics of politics'. The aesthetics of politics does not simply mean politics is an intervention into the sensible. More specifically, it means politics is the acting out of 'the parts that have no part'. In the next part of this section, I will demonstrate that the aesthetic regime of art is defined by two forms of equality/aesthetics (that are specific to art) and two forms of politics that connects and disconnects these two forms of equality. The interplay between the two forms of politics is what Rancière often refers to as 'the politics of aesthetics/art'.

The Aesthetic Regime of Art: Equality and Art's Specificity

Let's imagine equality between activity and passivity. What happens when we untie the knot between *poeisis* and *aesthesis*? The work of art is freed from the active will of the artist and offers itself to our gaze as free appearance. Free appearance embodies the qualities of non-art. A substantial link between the immanent poeticity of the world and the work of art is formed. Images of the world have their expressivity, even when they are silent, temporarily suspended

from concepts. It is possible for them to matter to us not on the basis of representing any competence. The primacy of action in the representative order is opposed by the new primacy of expressiveness. The privilege of speech over visibility is shaken. Another consequence is that style becomes indifferent to subject. The arbitrariness of language unfolds, welcoming the principle of literariness: "the freeing of language and representation such that that everyone is now entitled to intervene in any form of discourse, use or be addressed by any language and be the subject of representation" (Corcoran, 2010, p. 17). Since representability is unlimited, it does not make sense to constrain the range of acceptable subjects. The stage of the equality of all subjects and the indifference of style in relation to subject depose the hierarchy of genres. The aesthetic regime of art abolishes all the hierarchies characteristic of the representative order. This is not a dream. The aesthetic regime of art has come to play a critical role in the last two centuries. Rancière's theory of art is not a point of view from above. It arises from encounters with what has been presented as art.

During the last two centuries, the diversity of objects introduced to the field of art as works of art has made it sensible to us that works of art are not defined by a predetermined set of intrinsic norms. Aesthetics first refers to the collapse of the principles of representation, resulting in the indiscernibility between art and life. This kind of equality signifies the power of anything and anyone, and also the form of equality that went along with the French Revolution. Rancière (2009a) wrote:

> The aesthetic regime of art did not begin—as many theorists still have it—with the glorification of the unique genius producing the unique work of art. On the contrary, it began, in the eighteenth century, with the assertion that the archetypal poet Homer, had never existed, that his poems were not a work of art, not the fulfillment of any artistic

> canon but a patchwork of collected tales that expressed the way of feeling and thinking of a still-infant people. (p. 31)

Rancière's two favorite scenes of the aesthetic regime of art are Winckelmann's reinvention of *Belvedere Torso* in *The History of Ancient Art* published in 1764 and Flaubert's *Madame Bovary* published in 1856. Winckelmann turned a mutilated statue from ancient Greece into a perfect work of art. Instead of compensating for the accidental lack of head, arm, and legs, Winckelmann transformed it into a virtue: there is no action but pure thought. Pure thought is represented not by a head but by "a stomach that seems unfit for any digestive functions, by muscles that do not tighten for action, but whose outlines flow over each other like the waves of the sea" (Rancière, 2013, pp. 2–3). Flaubert's novel treated all things with the same care, making style become the only true subject of literature.

How objects acquired their speech and how subjects acquired their visibility in surprising ways indicate the freedom of thought that the aesthetic regime of art has effected. Rancière's interpretation of the indiscernibility between art and life as the outcome of the collapse of representation principles brings into view tremendous freedom of thought, which I did not see from other treatments of the indiscernibility between art and life. Discourses related to 'life becomes art', 'art becomes life', or 'everyday aesthetics' usually emphasize the possibility to shape/disrupt the world or ourselves according to our will, broaden the space to seek for enjoyment, or underline the importance of sensory perception in decision making. They all imply freedom; however, the extent of freedom they present does not seem as tremendous to me as I imagine the collapse of representation principles as described by Rancière. Rancière's figure of the emancipated spectator is substantially linked to this collapse. What the emancipated spectator

sees does not have to depend on the original act of representation, and she can reform trajectories of meaning and sense.

Untying the knot between *poeisis* and *aesthesis*, at the same time, makes it possible to separate art from life. Rancière attributes the autonomy of art not to the work of art but to an experience that is made possible by the absence of pre-ordered structures and the expressivity of the world—the free play encounter with free appearance—the aesthetic experience. Aesthetics also means this specific sphere of experience. Rancière has done a beautiful translation of the aesthetic experience described as disinterestedness by Kant and free play by Schiller by relating it to the notion of equality. For Kant, aesthetic experience implies a certain redistribution of the habitual conditions of sensible experience. It is captured in a double negation: the object of aesthetic apprehension is neither an object of knowledge nor an object of desire. In a Bourdieusian interpretation of Kant, the aesthetic experience is an illusion on the mind of a petit-bourgeois intellectual, one that is locked to a social position and hence does not know how the oppressive structure of the society works to produce such an illusion. For Rancière, the aesthetic experience is a function of equality, of an *as if* mode of being. We approach the work of art as if it were not a work of art and as if we were not fixed to a position in an ethical community. The *as if* mode is real, and it makes things and us the unaccountable in a given count. It demonstrates a dissensus, the commensurability of incommensurable worlds. The neutralization of the faculty of reason and the faculty of sensation signifies a distribution of the sensible that escapes hierarchy. As it starts from the abolition of the opposition between form and matter, between activity and passivity, aesthetic free play also erases the distinction between a full humanity and a sub-humanity. This is why "it bears within it the promise of a 'new art of living' of individuals

and the community, the promise of a new humanity" (Rancière, 2010b, p.176). Defined by the aesthetic experience, the arts become art, a singular process.

The paradoxical autonomy of art could be summarized in three points. Firstly, the autonomy is not that of the work of art but of a mode of experience. The autonomy of art as the autonomy of art forms brings art back to a representative order as it is founded upon an assumed concordance between *poeisis* and *aiesthesis*. Secondly, in the aesthetic experience, the spectator stands in front of 'free appearance', which bears no trace of will or aim. The work of art participates in the sensorium of autonomy inasmuch as it is not a work of art. Thirdly, the aesthetic experience consists in the suspension of a certain autonomy, the autonomy of reason. The spectator who enjoys the free play of the aesthetic in front of the free appearance experiences a kind of autonomy that is strictly related to a withdrawal of power. The suspension of reason is possible by means of a supplement that neutralizes the faculty of knowledge and the faculty of desire. We are promised the possession of a new world by the free appearance that we cannot possess in any way. In summary, art is autonomous only by means of tying art to non-art. The aesthetic experience communicates the realm of art with that of life experience. Art has the potential to generate an experience that is alternative to the ordinary, an exceptional experience that is freed from hierarchies of perception. What is at the heart of the aesthetic regime of art is not only the politics that separates the free and equal space of aesthetic experience (equality) from the infinite field of equivalence of art and life (equality) but also a form of politics that connects the two equalities. The power of anyone/anything and the kind of equality in the aesthetic experience connect at the spirit of a people who is indifferent to difference embodied in living attitudes and the materiality of sensory experience. The aesthetic experience promises a new art of living because it is connected to the other form of equality.

What is specific to aesthetic art is actually the interplay between its autonomy and heteronomy. It turns out that aesthetic experience always goes with other forms of experience in the identification of art. It is possible to understand grasping 'art for art's sake' in the sense of waiting for the aesthetic experience. It is also possible to understand it as grappling with the two aesthetic forms of equality. In this sense, we can do political art:

> We identify art in the interplay of the two forms of equality attached to its separateness and to its inseparateness. We identify it through the dialectic of its autonomy and its heteronomy. What does it mean, subsequently, to do political or critical art, or to take a political view of art? It means locating its power in a specific negotiation of the relation between the two aesthetical forms of equality. A critical art is, in fact, a sort of third way between the two politics of aesthetics. (Rancière, 2009a, p. 41)

Creativity: Fiction and Political Communities of Sense

The aesthetic experience is an uncontrollable and powerless event, and I find it difficult to think of it in terms of creativity. What is formed or exists in this mode of experience is a kind of universality that I do not characterize as original, new, or novel. However, doing art as negotiating the relation between the two aesthetical forms of equality suggests a notion of creativity that works in aesthetic art: the arrival of political communities of sense as a result of fiction. This arrival also implies the arrival of the aesthetic experience so that it is specific to art. What is new in the arrival of political communities of sense as a result of fiction is trajectories between what between what can be seen, what can be said, and what can be done. Rancière has reinvented the term fiction.

> Making fictions does not mean telling stories. It means undoing and rearticulating the connections between signs and images, images and times, or signs and space that frame

> the existing sense of reality. Fiction invents new communities of sense: that is to say, new trajectories between what can be seen, what can be said, and what can be done. It blurs over the distribution of places and competences, which also means that it blurs over the very borders defining its own activity; doing art means displacing the borders of art, just as doing politics means displacing the borders of what is recognized as the sphere of the political. Rancière (2009a, p. 49)

Rancière refers to artistic strategies as the labor of fiction and considers it as 'critical' work rather than 'creative' work. I have not seen him use the term 'creativity' or 'creative' in his works, and he does not advocate for the motto 'art for art's sake' either. My connecting creativity with criticality and suggesting that 'art for art's sake' might still hold relevance to the aesthetic regime of art are not meant to say that now we should use these terms (creativity and art for art's sake) when speaking about aesthetic art. I have just been trying to create new trajectories of meaning and sense. I do not mean to claim my work as a work of art, and on my mind, it appears that there is no distinction between art and non-art. However, as I write this chapter, I also struggle with the materiality of my words and attend to the possibility of the aesthetic experience. For example, I decide to stop revising my words when I feel a kind of satisfaction that resembles the aesthetic experience. Aesthetic experience plays a part in a kind of 'stop creating'. This stopping decides the shape of the work of art. When I visit art museums, the notion of stopping reverberates. We cannot distinguish a finished art work from an unfinished artwork based on a set of rules governing the manipulation and composition of the artistic materials. We can however do it by attending to our experience—whether the aesthetic experience has arrived. This reminds me of Fendler's (2014b) notion of teaching as stopping. She gave an example of teaching art.

Flanders Kittredge: “Why are all your students geniuses?

Look at the first grade–blotches of green and black. The third grade–camouflage. But your grade, the second grade... Matisses, every one.

You've made my child a Matisse... What is your secret?”

Teacher: “I don't have any secret.

I just know when to take their drawings away from them.”

(Guare, 1993, *Six Degrees of Separation*, cited in Fendler, 2014b, p. 193)

Knowing when to take the students’ drawings away from them does not necessarily mean the recognition of the aesthetic experience. I just imagine that it might. At the moment of this experience, there is no creativity. New trajectories of meaning and sense happen when we start a speech situation, for example, when we claim: “This is art!” While a teacher might have always thought of her students’ drawings as art, this moment of claiming art presents a new trajectory of meaning and sense. Moreover, a teacher, as an emancipated spectator, could certainly make other new connections from what is presented to her at the site of the work of art. This is a matter of redistributing the sensible rather than learning.

It might be worth noting that making fictions does not mean or guarantee political subjectification—the actual event of politics. As far as I understand, the signifier ‘politics’ has existed in discourses of politics with different meanings. Rancière’s politics connects existing meanings of politics with new meanings, and according to which politics is still a matter of collectivity rather than individuality.[29] Political subjectification involves an announcement of

[29] Individuality is contrasted with collectivity instead of community. Within this chapter, I do not have the ambition to explore in detail the difference between community and collectivity. Community is a form of being together and separate. For example, a consensual community of people does not mean that the members must speak to each other. They can remain individuals within the community. Consensus just means the set of rules that defines the sensible of the community. Collectivity, however, suggests a state of wholeness, which can be actual or inactual (see Chapter 5). Collectivity means the people considered as a body or whole.

collectivity, which does not necessarily mean the announcement of the power of an actual collection of people. More importantly, it signifies the announcement of the power of anyone of anything (equality). This announcement is not what one does to oneself. Political subjectification implies public demonstration of dissensus. Thus, it matters when people do art and announce that they are doing art. Art cannot be separate from the discourse of art.

Art Education in the Spirit of Aesthetic Art

To deinstrumentalize the relationship between art and education and practice art education in the spirit of aesthetic art, we can think of education as aesthetic art. I do not see the need of maintaining a strict distinction between art and education if we do not need to preserve inequality. Identifying art education with aesthetic art, I speak about doing art education as a matter of making fiction, of experimentation and appreciation rather than knowledge application and representation. This certainly does not mean a return to the creative self-expression paradigm of arts education, where the work of art is tied to the authentic self of the child and knowledge is considered a threat. To do art education in the spirit of aesthetic art means to attend to the figure of the emancipated spectator and the presence of the aesthetic experience.

Concluding Remarks

As I have shown in my critique of DBAE, DBAE identifies education as the process of qualification and socialization on the assumption of inequality. The magic of psychology has framed education, even arts education, as a scientific project. Given how school subjects have been organized as bodies of knowledge, systems of concepts, generalizations, and procedures students must learn, and how qualification and socialization have been articulated as the main purposes of education, DBAE firmly fits in the established distribution of the sensible about arts education in our era.

We can always start a change of discourse. There will be a chance for our voice to be heard and equality to become visible. In the spirit of aesthetic art, what matters is not to pin down a definition of creativity and education but to redistribute the sensible of creativity and education. The discourse of art education may be aware of itself as an artistic practice. Scholars might think of their work as a project to inspire people by using a set of strategies anticipated to bring about the desirable effects on the part of a target audience predefined by certain traits. However, this theorization falls back to the logic of the representative order. We can add an acknowledgement that no matter what we do, the effects of our labor are not within our control. We do our labor firstly for how we experience it. There is delight in rearticulating, connecting between the current discourse of DBAE and Rancière's poetry. This chapter, as much as it is a critique of DBAE and its creativity, is a humble appreciation of Rancière's work.

CHAPTER 5

EDUCATION AS THE CREATION OF SUBJECTIVITIES

Introduction

Biesta (2010) conceived three functions of education. Qualification refers to the provision of knowledge, skills, and dispositions that enable people to do certain things. Socialization inserts individuals into particular orders, playing an important role in the continuation of culture and tradition. Biesta defined subjectification as the opposite of socialization: "It is precisely not about the insertion of 'newcomers' into existing orders, but about ways of being that hint at independence from such orders, ways of being in which the individual is not simply a 'specimen' of a more encompassing order" (Biesta, 2010, p. 21). This chapter shares with Biesta this particular understanding of subjectification and an interest in figuring in education as subjectification. More specifically, I am interested in thinking about education as the effort to grapple with the possibility of creativity as well as an act of bringing something new into the world. On the basis of Levinas's ethics, Biesta's (2013) *The Beautiful Risk of Education,* an AERA award winning book, framed subjectivity as creativity. This chapter adds to Biesta's line of inquiry by attending to the works of Foucault and Rancière. Biesta (2013) has invoked a number of philosophers with diverse theoretical perspectives to explore different dimensions of 'the weakness of education'—"the fact that educational processes and practices do not work in a machine-like way" (p. x). *The Beautiful Risk of Education* examined Foucault and Rancière's reinventions of emancipation. I attempt to connect Foucault and Rancière's versions of emancipation with creativity, the phenomenon whereby something new and somehow valuable exists or is formed.

Reading Levinas, Foucault, and Rancière together promises points of comparison and contrast and worthwhile experience. In this chapter, I characterize Biesta's Levinasian ethical subjectification, Foucault's ethical subjectification, and Rancière's political subjectification. As the chapter leans toward spotlighting the relevance of Rancière's philosophy of equality to education and creativity, I will also describe an ethic of equality as a way to relate Rancière's equality to the possibility of creativity in education.

Being Responsible for the Other: The Event of Subjectivity and Empty Hands

> *The relation with the Other, or Conversation, is a non-allergic relation, an ethical relation; but inasmuch as it is welcomed this conversation is a teaching. Teaching is not reducible to maieutics; it comes from the exterior and brings me more than I contain.*
>
> ~ Emmanuel Levinas

My portrayal of Biesta's theorization of creativity from Levinas's ethics is shaped by how I have understood Biesta's recent philosophical agenda. Biesta has coined the term 'learnification' to denote the domination of the discourse of learning in contemporary education (Biesta, 2010). The learnification of education emphasizes the means at the expense of ignoring the end and hence ignoring what education actually brings into the world. I suggest that the suppression of debate on educational purposes results from the effort to construct a single reality that everyone is supposed to relate to: the reality of infinite competition for economic gains (see Chapter 1). Education's mission is restricted to the production of individuals who compete for economic gains. Individuals must be not only creative but also more creative than others. The learnification of education goes in tandem with the discourse of evidence-based education that presses for increasing the effectiveness of education in producing creative individuals. Biesta critiques learnification by bringing into view the importance of the question of educational

purposes and relations. Biesta's formulation of creativity intervenes into the sensible of education as well as creativity. Firstly, it is an endeavor to think of education as subjectification in contrast to the dominant sense of education as socialization. Secondly, it calls attention to 'the beautiful risk of education' that modern education is trying to minimize in its production of preconceived human kinds. If education is an act of bringing something new into the world, it should not be understood as the production of a new human kind. Biesta seeks for the possibility to think of creation "not in strong metaphysical terms—in terms of causes and effects—but in weak existential terms—in terms of encounters and events" (Biesta, 2013, p.12). Thirdly, Biesta aims to revive educational relations, particularly the importance of teaching in defining education. Education is distinguished from learning as it involves a relation with another person, who "comes from the exterior and brings me more than I contain."

Biesta's conception of creativity from Levinas's ethics carries a theological sense. Biesta challenged the common sense of creation by resorting to new interpretations of creation narratives. He pointed out how scientific explanations of the origins of the universe such as the idea of the Big Bang or the search for the most fundamental particle structurally resemble the religious belief of creation as a powerful act by means of which God has brought reality into existence: they also identify a first original event from which everything else has emanated. Biesta followed John D. Caputo's deconstructive reading of the book of Genesis to show a different way to understand the act of creation, where risk plays a central role. According to Caputo, in the King James Version of the Genesis, God (Elohim) is not bringing earth, water, and wind into being but rather calling them into life. Thus, it is possible, and for Biesta preferable, to think of creation as the process from *being* to *the good* rather than from *non-being*

to *being*. To connect this understanding of creation to the question of the educational interest in human subjectivity, Biesta turned to Levinas's ethics of subjectivity.

Criticizing the Western philosophy's focus on ontology, the study of the nature of subjectivity and being, Levinas turns away from the love of wisdom to the wisdom of love, asserting ethics as first philosophy. He defines ethics as the encounter with an absolute Other that is beyond comprehensibility. The ethical subject is constituted by a relationship of infinite and asymmetrical responsibility for the otherness of the Other. In response to Levinas's ethics, several critics have indicated an apparent logical impossibility: If the other person were entirely other, could we even know if we had encountered it? Nevertheless, Levinas does not present a thesis about the nature of knowing. His philosophy is meant to challenge the assumption that human beings are human through consciousness and the idea of the subject as a substantial center of meaning and initiative. The infinite responsibility towards the Other cannot be chosen, is not justified by prior commitment, and constitutes the fundamental structure of subjectivity. Levinas's ethics should not be interpreted as a new conception of subjectivity where we are not autonomous beings of consciousness but relational beings inherently responsible for others. It does not try to answer the question of what the subject *is*—its nature and essence. Rather, it is interested in how subjectivity *exists*.

Levinas's concern with *being* is that it flattens the uniqueness of the Other and presents an instrumental relation between human beings. Biesta invited an understanding of uniqueness in terms of irreplaceability. To answer the question of uniqueness, instead of looking at the characteristics that make me different from everyone else, I can look at situations where I cannot be substituted by someone else. In that way, uniqueness or subjectivity is an event. Creativity is an existential term referring to the coming into the world of uniqueness as a result of being

unconditionally responsible for the otherness of others. The event of creativity cannot be produced and is easily prevented by closing our hearts. To use Biesta's words, Levinas leaves us with a 'pedagogy of empty hands'. Biesta's theory of creativity weakens the desire to model education as a causal process of production dominant in contemporary educational discourses, which is imposing knowledge structures that radically reduce the complexity and fragility of human life. In light of Levinas's ethics, Biesta adopted a Levinasian definition of teaching and hence portrayed the teacher (the Other) as the source of creativity. The relation between the self and the Other distinguishes education from learning. The event of creativity is also the event of being taught or being gifted. In this way, teaching is at the same time weakened and elevated.

Levinas/Biesta's ethics of subjectivity is in contrast with the kind of ethics that consists of codes to produce predefined patterns of behaviors or human kinds and is dominating our discourse of ethics. While the coming into the world of uniqueness as a result of being unconditionally responsible for the otherness of others cannot be predicted, by scientific laws or ethical codes, it is predicated upon what Rancière calls the ethical law of the outside (see Chapter 4). The self in a Levinasian setup can only be disrupted by means of the figure of the outsider. For many people, including me, Biesta's formulation of creativity has redistributed the sensible of education and creativity; however, Biesta's identification of education and creativity is theoretically founded upon consensus and a structural asymmetry between the self and the Other, a kind of inequality distinct from that upheld by psychology. The psychology of creativity configures a human order of creativity whereas the ethics of subjectivity calls upon God for creativity.

It might be worth noting that Biesta's formulation of creativity on the basis of Levinas's ethics makes up the heart of what Biesta identified as his own theory of education, which hangs

on two notions, ‘coming into the world’ and ‘uniqueness’. The notion of ‘coming into the world’ is developed from Arendt’s ‘paradox of natality’ and ‘condition of plurality’. Arendt maintains that newness is given to us in the form of newcomers to the world through birth and it is our mission to preserve the new. ‘Natality’ refers to the fact that people are constantly born into the world and are continually in need of introduction to that world and to one another. Natality constitutes the human capacity for renewal, but this capacity needs protecting and nurturing. Paradoxically, newcomers are always belated. The historical world that has been there has the power to assimilate them into existing orders, defining them as particular human kinds rather than unique individuals. The endeavors to initiate the new, to take ‘actions’ in Arendt’s terminology, occur always in the condition of plurality, “in the midst of other acting beings whose very presence mitigates against our actions coming to fruition” (Levinson, 2001, p. 14). Arendt presents to us a caution: “The chances that tomorrow will be like yesterday are always overwhelming” (1961, p. 170). Biesta’s resort to Levinas deconstructs the essentialist tone in Arendt’s philosophy of the child and proposes an argument for why the subjectivity of each single person who comes into the world might matter. While Levinas is not concerned about freedom, Biesta’s theory of education as the coming into the world of uniqueness connects with freedom through Arendt. Freedom in an Arendtian sense refers to capacity to act. To act means to take initiative, to begin something new, to bring something new into the world. Freedom exists only in action. It is not an imagined potential or a private experience. It needs a public realm to appear. As we act in the condition of plurality, our freedom depends on how others will respond to our initiatives.

Biesta did not avoid the practical question: What to do if we are informed that the event of creativity cannot be produced or predicted? Biesta's reference to a 'pedagogy of empty hands', however, evokes Foucault's concepts of pastoral power and disciplinary power.

> If the possibility of subjectivity, the possibility of the event of subjectivity, has to do with those situations in which we are called, in which we are singled out, in which we are assigned to take responsibility for our responsibility, then one of the important things for educators to do is to make sure that our educational arrangements do not keep out students away from such experiences, do not shield them from any potential intervention of the other, do not contribute to making out students deaf and blind for what is calling them. Doing so will not guarantee anything, of course, other than that it will not block the event of subjectivity. Biesta (2013, p. 23)

I would say that there is no way to guarantee that we will block or not block the event of subjectivity. As we appreciate Levinas's ethics, paradoxically, we attempt to take care of what we do so as not to block the possibility of the Other's invocation, even when we do not know how to do that.

Creating Ourselves as Works of Art: Subjectification and Desubjectification

> *There is, in my opinion, only one conclusion that may be drawn from the idea that the self is not given to us: we must create ourselves as works of art.*
>
> ~ Michel Foucault

This section begins with an introduction of Foucault's ethical (de)subjectification as it is relevant to the struggle for the new and valuable. To understand Foucault and to make connections favorable for contrasting Foucault and Rancière, I will also examine Foucault's contribution to the history of modern Western thought on emancipation.

What We Do in the Name of Freedom

In one interview in 1982, Foucault said that his proposition of creating oneself as a work of art challenged the fact that in our society art has become something related only to objects and done by experts who are artists. His question was, "Why should the lamp or the house be an art object, but not our life?" Foucault is also well known for his saying, "I don't feel that it is necessary to know exactly what I am. The main interest in life and work is to become someone else that you were not in the beginning" ("Michel Foucault," 2014). These articulations suggest that Foucault's ethics of self-care and his critique of subjectification are germane to educational thought about creativity.

In Foucautl's philosophy, subjectivity is also de-essentialized. However, the term is neutral and open to a variety of different judgements instead of directly signifying the new, the good, and the unique as Biesta's subjectivity. The ethical subject is a series of effects coming from the relationships between the self, power, truth, and freedom. Fendler (2010) characterized Foucault's ethics in terms of freedom: "By 'ethics', Foucault was referring to what we do in the name of freedom" (p. 56). An ethical relation exists when we encounter ourselves, for example, in situations where our thoughts do not match our actions. In these situations, we have a clear sense of self-governing and a call to think and act differently. Freedom implies the capacity to think and act differently, not necessarily in a public space. Practices of freedom involve a form of governance. Governance and freedom are not oppositional but constitutive of each other. Foucault analyzes the ethical subject with a four-part framework consisting of *ethical substance* (What part of the self is supposed to be changed as we work on ourselves to become free?), *mode of subjectification* (Why should we work on ourselves to be free?), *regimen* (What are the means

by which we can change ourselves in order to become free?), and *telos* (What the completed struggle for freedom looks like in the end) (Fendler, 2010).

The self's practice of imagining and inventing itself in relation to freedom evokes a sense of creativity. It can be perceived in terms of *poiesis*—the Greek term for creation or production, which, unlike mere action (*praxis*) or doing, is aimed at an end (*telos*). Self-transformation is always experimental, and the telos consists in change. It is possible to see Foucault's ethical subjectification as dis-identification since the self wants to change itself and the end is not fixed. Self-transformation is always experimental. However, this kind of subjectification includes attempts to identify with existing identities in the society. For example, as a free person, I may want to construct myself as a Vietnamese woman, an existing identity well defined by a set of characteristics. This practice of freedom might create something new for me, but it differs from Biesta's general definition of educational subjectification. Foucault's desubjectification appears more compatible with educational subjectification since it is about a way of being that does not conform to existing norms but actively seeks new thinking and seeing. Foucault himself called his manner of critique 'desubjectivation'—the art of not to be governed in this way and at this price (Foucault, 2007). Foucault's practice of writing exemplifies the ethics of self-care. He talked about his own books as 'experience books', which he opposed to 'truth books' or 'demonstration books' (Foucault, 2000, p. 246). An experience book is not a book on or about experiences but a book whose writing and reading is itself an experience. In such a book, said Foucault,

> I am not concerned about communicating what I already thought or what I am thinking before I begin to write. Rather I am concerned […] that the book transforms me and transforms what I think […] I am an experimenter and not a theorist […] who constructs

> a general system, either deductive or analytical, […] I'm an experimenter in the sense that I write in order to change myself and in order not to think the same thing as before. Foucault (2000, p. 240)

The point of desubjectification is not only to form an end but also, more importantly, to grasp the singularity of the events occurring to the self. Massechelein (2006) described Foucault's practice of writing as an exercise of 'ex-position'. Experience books do not report personal experience in order to justify positions. The writer does not take the position of a knowing teacher who addresses learners. He exposes himself to test the limits of subjectivity, to allow for the possibility for thinking and seeing otherwise. This practice entails self-discipline, a form of *askêsis*. Self-discipline differs from policing, the function of a set of rules that regulates and maintains an order of what is allowed to be visible or audible as well as what can be said, made or done. Self-discipline tackles policing. Foucault's turning life into art does not flatten life and art. The self as a work of art is not analogous to a lamp or a finished painting. The self in Foucault's ethics is in struggle. It is heterogeneous—it has a relationship with itself.

In my view, ethical subjectification refers to both identification and dis-identification or desubjectification (the practice of critique). It is clear to me that Foucault's ethics of self-care is interested in the possibility to illuminate and transcend limits, which my interest in creativity follows. Foucault's ethical (de)subjectification does not ensure the arrival of new thinking and seeing, but it is, without doubt, an exercise to welcome otherness, to seek what is new and valuable.

History of Emancipation and Foucault's Contribution

Foucault's ethics of self-care assumes independent thinking and involves grappling with the capacity to think and act differently—to shift from one possibility of subjectivity to another.

For Biesta, Foucault's philosophy generates a vision of emancipation as a "*practical* critique that takes the form of a possible transgression" (Foucault, 1984, p. 45, cited in Biesta, 2013, p. 74). Biesta (2013) remarked that emancipation is an educational question. I present below a short history of modern Western thought on emancipation that mostly draws on Biesta (2013). This history offers a context for our appreciation of Foucault's and Rancière's philosophy.

The question of emancipation could be traced back to a decisive turn in Western thought, the Enlightenment. Kant, a key figure of Enlightenment, defines enlightenment as "man's release from his self-incurred tutelage" and saw tutelage or immaturity as "man's inability to make use of his understanding without the direction from another" (Biesta, 2013, p. 80). Enlightenment denotes a process of becoming independent or autonomous, and for Kant this autonomy is based on the use of one's reason. Kant argues that the propensity and vocation to free thinking is not a contingent, historical possibility but an inherent part of human nature; it is man's ultimate destination and the aim of his existence. In order for this capacity to emerge, we need education, Kant argues. Emancipation is linked to subjectification through the idea that education entails an orientation toward independence and freedom. Emancipation has played an important role in modern educational theories and practices. Many educators want their students to become able to think for themselves. The idea of emancipation was central to the establishment of education as an academic discipline in many countries in the beginning of the twentieth century. In the US, the progressive education movement came into public presence with the discourse of the creative child. Progressive education places the child at the center of education and encourages the child's freedom of expression, but it installs dependence on the part of the child by prescribing a method of constructive learning without which the child's development is supposed obstructed. In a Rancièrean language, progressive education explains how learning happens and establishes

an ‘explicative order’ in which the teacher knows exactly what is good for the child’s maturation (see Biesta & Bingham, 2011). Critical education in the Marxist tradition, which gained traction in North America in 1960s–1970s and remains influential up to now also assumes inequality between the emancipator and the emancipated. It understands emancipation as an operation of demystification—an escape from power that relies on knowing the truth about our objective condition, a truth that can only be generated by someone who is positioned outside of the influence of ideology. In the monological approach, this truth is learned from the teacher; in the dialogical approach this truth is discovered through a collective learning process. Kantian, progressive-liberal, and critical-Marxist theories of emancipation all assume the deficit of the child, the emancipated’s dependence on the emancipator, and the inequality between the emancipated and the emancipator. Treating emancipation as an object of study, they participate practically in producing immaturity, dependence, and inequality. In their theoretical apparatus, they deny the goals they set out to support.

Foucault has offered a distinctive version of enlightenment/emancipation, one that inherits from Kant the critical practice of analyzing and reflecting upon limits and from Baudelaire the artistic practice of creating the self. For Foucault, critical work is no longer in the search for formal (Kantian) structures with a universal value. Critique makes an historical investigation into the particular events that have led us to constitute ourselves and to recognize ourselves as subjects, particularly subjects of what we are thinking, doing and saying. Foucault’s ethics of self-care has also been referred to as the aesthetics of the self for its affinity with Baudelaire’s aesthetics and the task of creating oneself as a work of art. The practice of transgression is not only based on rationality but also an ethical/critical capacity that could not be encompassed by the state of being knowledgeable. The Foucaultian self is a historical product,

but within the historical period from which it has emerged, the self's ethical capacity is transcendental, as Seppä (2004, para. 27) commented, "Despite the engaged and historicist character of his thinking, Foucault retains some notion of transcendence in the sense that he sees us as being able to go beyond the limits that have been imposed on us historically." Since emancipation as transgression is the work on one's self and does not follow a predetermined program, it is not built upon a structural inequality between the emancipator and the emancipated. Furthermore, as the self is heterogeneous and can be in a relationship with itself, this relationship does not assume inequality. The self is capable of independent thinking, but it is not a master of itself in the sense it cannot conquer itself easily.

Education envisioned from Foucault's ethics of self-care would be a field of artistic experimentation rather than linear production. The event of creativity is claimed from the perspective of the first person, following a private judgement. However, the private self is not divorced from the society. Deleuze figured Foucault's philosophizing in the language of perpetual foldings: "the inside as an operation of the outside: in all his work Foucault seems haunted by this theme of an inside which is merely the fold of an outside, as if the ship were a folding of the sea" (Deleuze, 2006, p. 81). Foucault's ethics is by no means a version of modernist individualism. To test the limit of oneself is also to test the limits of the present era. The self is formed in relation to the discourses of the present era. The illumination of limits gestures toward or involves doing things differently in order to show or to prove that things can be different and that the way things are is not the way things necessarily should be. There is no reason for which transgression is restricted to privacy. Foucault was a public intellectual. He wrote in order to change himself, but he shared his writings with other people. Foucault's career has exemplified transgression that tests the limits of the present era.

Political Subjectification: Equality and Refiguring Communities

In this section, I will try to rearticulate my understanding of Rancière's politics in relation to creativity.[30] In Rancière's writings, subjectification is distinguished from identification. Identification is about taking up an existing identity, that is, a way of being and speaking and of being identifiable that is already possible within the existing perceptual field. Subjectification is always dis-identification; it "inscribes a subject name as being different from any identified part of the community" (Rancière, 1995, p. 37). Subjectivity is a new identity in a community. It is a form of creativity. Subjectification generates events of subjectivity rather than reproducing a particular kind of identity. Rancière writes about subjectification in relation to politics. Subjectification is always political. It is political emancipation. Politics is the redistribution of the sensible on the assumption of equality and announces a sense of 'we'. I would like to highlight four points worth noticing about Rancière's politics.

Firstly, as far as I understand, political subjectification intervenes in the configuration of a community with the announcement of collective intelligence.

To begin with, 'community' does not mean a group of humans but a specific cutting out of space and time that a variety of things inhabit. In a community, there might be humans, artifacts, animals, plants, etc. Rancière is not concerned about the thread that all these various humans and things share as an inner property. Neither community is defined by the fact that various elements interact with and have influence on each other. Individuals can remain separate individuals within a community. They may not respond to each other. However, they take up identities that make sense in a distribution of the sensible that configures the community. Rancière cares about community of sense, both forms of intelligibility and visibility in a distribution of the sensible that makes up a community, particularly the relations between them.

[30] Chapter 4 has elaborated on Rancière's politics.

Politics is always about intelligibility and visibility. Rancière is not a philosopher of desire, and I have not seen him deal with pure sensation and the extent to which pure sensation could form a community.

Central to Rancièrean politics is a refiguration of what counts as capable of politics. In the different contexts of Rancière's writings, political subjects usually refer to human bodies and capacities. During the last years, in theoretical humanities, there have been arguments for the politics of (non-human) objects. According to Rancière, objects can speak in relation to humans and become subjects, and this does not necessarily mean objects are colonized by humans. Rancière constantly valorizes the muteness/opaqueness of physical objects. Below is how he describes a political work of art.

> The connection of vegetables and high rhetorics in Bretch's *Arturo Ui* conveys a political message. But on the other hand, the clash is produced insofar as the heterogeneity of the elements resists the homogeneity of meaning. Cauliflowers remain cauliflowers, juxtaposed to high rhetorics. They carry no message. They are supposed to enhance political energy out of their very opaqueness. Ultimately, the mere juxtaposition of heteroclite elements is endowed with a political power. (Rancière, 2009a, p. 41)

In this example, it is the collage of vegetables and high rhetorics that appears with new identities—subjectivities—in the sensible of art. It is certainly related to the human artist/spectator. Indeed, Rancière places everything on the same plane of materiality. Words also exist materially. In that way, things are human and non-human at the same time.

To continue, the announcement of collective intelligence in politics first of all means that politics engages a speech situation—a matter of intelligence or intellectual. Politics is not limited to speech. Nevertheless, politics involves the use of words to introduce new identities into the

sensible world. It does not mean politics is caused by the use of words, but when politics arrives in the scene, the redistribution of the sensible presents a new form of intelligibility. As indicated in the previous chapter, for example, the 'politics of aesthetics' refers to not the redistribution of the sensible leading to the aesthetic experience that renders us speechless but the interplay between two forms of politics. The peculiar politics of the aesthetic experience is not separate from the politics that connects art and life. The aesthetic experience does not present a form of subjectification. Rancière writes about 'aesthetic suspension' or 'aesthetic indifference' rather than 'aesthetic subjectification'.

Announcement suggests that political subjectification is a situation involving the intelligence of many speaking beings. However, collective intelligence specific to Rancière differs from the fusion of individuals' intelligence, for example, in the global network that is usually construed as the sensory materiality of immaterial collective intelligence by capitalist production. Collective intelligence means anyone's capacity to speak of anyone, an *as if*. New subjects appear as if everyone or everything can speak. The appearance of the *as if* matters as much as the new subjects.

To summarize, my first point about politics is to draw our attention to the fact that Rancière's politics is mainly concerned about community and collectivity. In the contemporary domination of individualism in educational discourses, Rancière's language invites us to think about how we are together and separate. Accordingly, creativity is not a matter of individuality.

Secondly, politics is an event where the police order, an ethical community, a consensual distribution of the sensible predicated on historical location (see Chapter 4), is interrupted by equality and hence divided in relation to itself, becoming a political community. A political community is defined by dissensus, which is "not the opposition of interests or opinions" but

"the production, within a determined, sensible world, of a given that is heterogeneous to it" (Rancière, 2003, p. 226). A political community displays a sensory conflict—the conflict between a police order and a new visibility/capacity that the police order denies. It is the meeting of two logics. It illuminates the police order and is a matter of collective intelligence assumed on equality. The equality of intelligence is the equality of any speaking being with any other speaking being. Political subjectification is not only the assumption but also the verification of everyone's equality of creativity.

Thirdly, equality comes from 'the parts that have no part', a supplement to the existing order. The creation of political subjects is not *ex nihilo*. Politics creates subjects by transforming identities in the natural order. While Foucault implies a version of historicism that retains some notion of transcendence, Rancière offers an explicit theory of universality. 'The parts that have no part' assumes *intempestivity* and *a-topia*: "To be *intempestive* means at once that you do and do not belong to a time, just as to be *a-topian* means that you do and do not belong to a place" (Rancière, 2010b, p. 82). The dissensual nature of being in historical conditions allows the political redistribution of the sensible. In politics, the sensible is redistributed not in accordance with a law of change which defines its order. Neither does it come from something outside the community.

Finally, the point of politics is not to create constant chaos and disruption. Rancière does not argue that we should produce as much creativity as possible. Politics/police is neither good nor bad. Rancière emphasizes that there is a worse and a better police. The police can produce all sorts of good, and one kind of police may be preferable to another. However, that police is sweet and kind does not make it any less the opposite of politics (Biesta, 2013). Operating on a process of universality assumed by *impestivity* and *a-topia*, politics is occasional and local.

Since politics is rare, the question is: Does Rancière's political subjectification also leave us with empty hands as Levinas's ethical subjectification? Biesta's theory of creativity suggests that we have to wait for the event of subjectivity whereas Rancière's writings constantly suggest we act out of the assumption of equality and verifying it. Doing education can be certainly claimed as doing politics and vice versa.

Ethics of Equality: Making Room for Creativity

A Conceptual Sketch

As I think about how Rancière's philosophy can be relevant to education and creativity, the notion of equality makes sense to me not as a matter of politics but also ethics. I have tried to imagine an ethic of equality relative to Foucault's ethics of self-care. This exercise adds to the pluralization of educational thoughts on ethics. The ethics of equality also contributes to the literature on emancipation in education.

Rancière defines emancipation in terms of equality. It is possible to say emancipation is a particular kind of freedom, freedom from inequality. Rancière does not conceive of equality as something that has to be achieved through politics or other means. Emancipation is not the process where we overcome inequality and become equals. Emancipation can take shape in three ways, with the common thread as the postulation of equality as an axiom. Emancipation can be a rupture in the order of things in a political sense. It can also be a state of ignorance where one does not know inequality because one naturally inhabits a form of indifference to boundaries and hierarchies. I call this spirit of ignorance the idle ethics of equality, which allows a connection between Rancière with the Eastern world, where Buddhist notions of universality and equality have been widespread and shaped the way many practitioners live their life. Particularly, I am reminded of a Japanese haiku:

The morning glory!

The well bucket- entangled,

I ask for water.

(Translated by Donegan and Ishibashi, cited in "Fukuda Chiyo-ni," 2014)

The morning glory, the bucket and the rope attached to it, and water are all treated with the same respect and appreciation. The poet in the scene does not seem to have made an effort to conceive of them as equal living beings.

It is also possible that the poet wrote the poem in order to introduce equality to the world of inequality she was living. Ethical emancipation can be a mode of actively behaving as if everything is equal while being aware of established divisions. I understand the process in which a person deliberately embraces the principle of equality in their imagination and action as a Rancièrean ethical form of subjectification. This form of subjectification resembles Foucaultian ethical (de)subjectification in the sense that it involves a will not to follow norms. As we act on the assumption of equality, social boundaries and hierarchies appear to us clearer than ever. Thus, it is a very dangerous test of limits, a way of relating to new thinking and seeing. This test is not centered on imagining the self. The self is one of the many things that the ethics of equality attends to. However, the test can certainly begin with imagining oneself as equal to everyone else.

The Creativity of 'Mistakes': A Story from My Teaching Experience

This section tells a story. I think the story illustrates how an attention to education as the grappling with the new and valuable and as well as the bringing something new works in relation to equality—particularly the ethics of equality. It also speaks to the doubt of the applicability of Rancière's philosophy in standardized schools. I do not try to package it neatly into the concepts

that have been mentioned in the previous sections. While I enjoy engaging with conceptual setups, I do not conceive them as tools to colonize the world. I see things and words in relation to these concepts rather than subsuming them under the concepts.

Before coming to the US, I had worked as a teacher of English for over 10 years in a variety of settings. It was not something I found easy. English in Việt Nam is a foreign language, a subject in school, a requirement for many jobs, a prerequisite if one wants to study abroad, and almost a necessity to enjoy a modern, international life. The demand is high, and proficiency is measured through standardized tests. A big part of teaching centered around correcting mistakes–grammar, word choice, expression, and organization. I had to admit that I became a teacher of English for an instrumental reason: I wanted to have a job. I loved Vietnamese much better and felt guilty for not aiming to be a teacher of the Vietnamese literature. I am not a native speaker of English, and I was afraid of making mistakes since they would act as bad models for my students. I lacked self-esteem, and I thought my teaching must have lowered my students' self-esteem. No student communicated that, but they got angry when I did not teach to the tests. After my first months in an official teaching position, a group of students signed a paper to require me to stop teaching them as I did not obey the prescribed curriculum. I did not quit teaching and went on by devoting my life to correcting my own mistakes and my students' mistakes, with the belief that this job brings about goodness. My job was highly stressful. Frustrated students would sometimes question the rules of English, "But why?", to which many times, the only explanation is "because that's how native speakers say it and that's what the tests expect you to know." It was like a race in which we try to be less lost, knowing full well that we can never win.

After several years of experience, I started to think that I must become more courageous in embracing the possible goodness of my students and my teaching. My students had always been important people in my life, but it appeared that I could come to them with more trust. I started teaching English with more of what I found interesting than what would be in the tests. In a composition class, I luckily met some students who later became my close friends. I taught grammar with the hope that increased awareness and knowledge of grammar would help the students in the class increase their autonomy in writing. While being able to perform better on standardized tests when needed was part of the goal, I knew that I would take every opportunity to present English as something beautiful rather than the mechanical execution of rules. In one of the first lessons about noun phrases, I brought in a few poems by Sei Shonagon. One goes like this:

Things that should be short

A piece of thread when one wants to sew something in a hurry.

A lamp stand.

The hair of a woman of the lower classes should be neat and short.

The speech of a young girl.

One student shared with me her list:

The kiss is red

a bad book which is harmful

The mother who's so sorrow

the eyes of girl whose colour are brown

There are so many things to 'correct', but I felt fortunate. The exercise gave me a glimpse into what she was thinking, and I marveled at how seemingly unrelated items came to her mind

at the same time. We talked about noun classes, reference and articles, modifiers, and pronouns, and we also saw the beauty in what she wrote. Even now, just thinking about the short red kiss is enough to make my day a little sweeter. In another lesson, we talked about verb complementation and how it was possible or not possible to write: “She is sleeping the book.” Creativity sometimes comes from surprising mistakes. When reflecting upon past incidents, I realized that I was dismissed by that group of students not because I did not follow the prescribed curriculum but because I did not respect and address their worries adequately.

Three years after the class concluded, we still keep in touch. My students keep writing in English and their facility improves. Once a dreaded subject required by social pressure, English has become a friend with whom they have an intimate relationship. They would sometimes urge me to correct their works. I could no longer correct a poem like this:

> *It the first time I know clearly, the beauty of a house is not its convenience, its see-able advantages, even its charm in the decoration.*
>
> *The beauty of a house is the expressive capability in every its small detail*
>
> *an old gate fulfilled by the shade of leaves and the succulent thin flowers of a no-name tree*
>
> *a quiet tea table whose brown is leaning to black*
>
> *every tree in the small garden in front of my eyes all remind me about the absent childhood*
>
> *what a beautiful present! what a sorrowful present!*
>
> *I love a house that I can sit in silence during the day, from sunrise to a new day coming again*
>
> *and I can invite you going into*

with me

silent

as if there is only your being in front of the dead rose

which its soul has just returned from a strange lover…

There is no mistake, only poetry. Schools do not kill creativity. They produce discourses of inequality in which creativity is transmogrified into deficit. If we act on an assumption of equality, we might find it very difficult to be in a standardized school. However, that does not necessarily entail an impossibility to enact a pedagogy of equality for creativity. It is worth exploring the power we have when we judge ourselves equal to everyone else and judge everyone else equal to us. I chose to remain in a standardized school as I could still construct space for respect, appreciation and fiction. It does not mean I like to preserve the school system.

Concluding Remarks

Biesta's scholarship has consistently aimed to define education as a distinct field. Across many of his works, what is specific to education is to welcome the otherness of others. From Biesta's theory of creativity, I think of creativity relative to otherness. The term otherness might be effective in suspending the notion of origin and progress usually associated with creativity. For me, Foucault's theory of desubjectification, and Rancière's theory of equality offer other ways of welcoming otherness. Personally, I relate to the theories in different ways.

I can describe certain events of my life in Levinas' terms. For example, I can say I have experienced infinite responsibility for the Other, and I can call this experience love. However, I do not usually have a self. And when I have one, it does not seem so solid that a dichotomy between the interior and the exterior appears to me.

The Foucaltian self welcomes otherness, though this welcoming is for the sake of the self. A focus on the self might be limiting, but having a self can be quite an educational achievement and a blessing. In the context where I have grown up, the most important thing that girls is taught is to care for others. Selflessness is a virtue highly praised. I had no access to discourses about the cultivation of the self. I did not govern myself as a girl, and I do not know how it has been possible. I have never accepted the social hierarchies made visible to me. As I had a difficult relationship with all the discourses, I could not develop an identity. While struggling to cultivate a self, I do not want this self to conform to existing hierarchies. Foucault's notion of a self that is in refusal, curiosity, and innovation has been a very practical solution for me.

In line with Rancière's theory of equality, otherness is seen in contrast to an existing community and comes from the community itself when its consensus is dismantled. Rancière's theory of equality does not suppose that I have already had a self that needs cracking open by the Other. Neither does it remind me that I have not been able to create a self. Equality gives a sense of nothingness, and the insertion of nothingness in life makes discontinuities possible. It allows a spirit of freedom that is very exciting and encouraging.

CONCLUSION

This conclusion does not aim to summarize my dissertation and its chapters. It will do a number of things that either wrap up the dissertation or open up some of its issues to further discussion and more experience. Firstly, I will review the configuration that connects Western modernity, creativity, instrumentality, and equality and constitutes the backbone of this dissertation. Secondly, I will present the lessons about discourse analysis that have come to me. Last but not least, I will tell personal stories about creativity, which are also my words of thankfulness to the fortunes important to my writing this dissertation.

Creativity, Instrumentality, and Equality

I have long been familiarized with creative activities. My grandfather was a passionate art lover. Creativity has been one of the criteria to evaluate academic performances in my schools in Việt Nam. However, I did not pay much attention to the word until the 1990s, where neoliberal creativity gained prominence in my discursive environments. This dissertation was initiated due to the prominence of creativity in education for the twenty first century. As I conduct my research, apparently, the term becomes more important for thinking about subjectivity, self and community than I imagined. It is possible to center Western modernity on creativity, even though the noun creativity has just become popular after World War II.

The dominant narrative of modernity assumes continuity between the eighteenth-century Enlightenment and nineteenth-century modernity and posits a historical break between modernity and postmodernity. Accordingly, modernity represents a progressive evolution of Enlightenment commitments to reason as the guarantor of human freedom whereas postmodernity eschews the characteristics of modernity: the faith in progress, the commitment to certainty, the conviction that the self is unified and/or transparent, the presupposition that

knowledge can be divorced from history and questions of power, etc. Fendler (2014) brought into view several challenges to this narrative. For instance, following Foucault's conceptualization of the Enlightenment as an attitude of perpetual critique, Heilbron (1995) characterized a dramatic historical break between the Enlightenment and modernity. In modernity, the critical dynamism of Enlightenment epistemological debate was replaced by institutionalization projects of stability and certainty for purposes of social melioration. Another challenge to the dominant narrative was Toulmin's (1992) assertion that Michel de Montaigne's humanist essays should be considered the inauguration of modern philosophy. Toulmin carried modernity back to a time before Galileo and Descartes (Enlightenment) and gave Renaissance humanists credit for originality. His periodization assumes that, in terms of what is possible to think, the view of reading and writing as independent of God was a shift more radical and important than Descartes's proposal of the reflexive subject. Fendler noticed that various accounts of modernity converge at the idea of modernity as a worldview that "exempts itself from history" (Fendler, 2014c, p. 228). She herself constructed a case in which modernity is treated as a discrete segment of history, bounded on both sides, discontinuous from both the Enlightenment and postmodernity. For her, characterizing modernity as a discontinuous and bounded period of history is "a strategic, pedagogically effective way to undermine determinism and loosen the reins of truth that regulate and normalize thinking" (Fendler, 2014c, p. 225).

Inquiring into the meanings of modernity, I am creating new trajectories of meaning and sense. I am not ambitious about proposing a periodization that redefines modernity. The different ways of identifying modernity I have encountered bring creativity and its related terms to spotlight. This dissertation brings forth the intelligibility of Western modernity in terms of creativity and the intelligibility of creativity in terms of instrumentality and equality. While I aim

to make visible multiple meanings of modernity and creativity, I prescribe a specific meaning for instrumentality and equality. By instrumentality, I refer to a mentality that invokes a conceptual setup of means and ends and a humanist belief in human agency relative to the capacity to use instruments/tools to understand and solve problems. Following Rancière, I understand equality as the dismantling of boundaries and hierarchies. This notion of equality is contrasted with equality as measurable sameness, which constructs as well results from the establishment of an order of inequality. In this dissertation, inequality and equality are two different theoretical setups rather than two values of the same order.

To appreciate what the dissertation has done, let's revisit and enrich our notions of modernity and creativity. In the dominant narrative of modernity, the Renaissance was the cultural bridge between the Middle Ages and the modern age, and in Toulmin's (1992) historiography, it inaugurated modern philosophy. The Renaissance revived the Greek strong interest in persons with exceptional creative abilities. The emergence of Romanticism, which signifies either the beginning of modernity or the beginning of a new phase of modernity, presented a radical shift in the understanding of genius. Before the eighteenth century, genius had a variety of different meanings, none of which corresponds to our modern use of the term, where genius is intimately connected with groundbreaking novelty. Interestingly, the genius of Romanticism is surrounded by a mystical aura that contrasts with the centrality of rationality usually defining modernity. While the mystical sense of genius is still in currency, modern social sciences and philosophy have invented the measurable genius and lessened the importance of innate endowment in creative achievements. The well-circulated notion of modernity as the institutionalization of stability and certainty for purposes of social melioration is predicated upon an understanding of the very nature of human beings as thinking creatures facing the world and

relating to it as an object and hence capable of modifying it—the assumption of instrumentality. Modernity has invented the creative man. As Foucault put it, man is an invention of recent date, neither the oldest nor the most constant problem that has been posted for human knowledge.

This dissertation has invoked Foucault's governmentality and Rancière's equality to critique instrumentality. Governmentality highlights that as we create the world we also create ourselves. Modern people face the task of inventing themselves. Foucault's governmentality has introduced a particular understanding of modernity and of creativity. For me, Foucault's characterization of modernity and creativity occupies the space between instrumentality and (Rancièrean) equality. Conforming oneself to a set of preconceived norms is an instrumental way of reasoning whereas exposing oneself to possible new thinking and seeing calls the role of equality into the scene. How do new thinking and seeing come into our sensorium? If there is a predetermined rule-based order of evolution that dictates the appearance of the new, human creativity is only an instrument for progress. Is the new caused by discipline? Discipline does not assume a teleological path, and it possibly causes the new. Here is an alternative hypothesis: the new appears out of equality—sheer contingency. This is not an alternative scientific hypothesis that explains the world as it is but an alternative assumption that we can act upon and make the world anew. Equality has implications not only for self-governing but also community formation. Rancière rethinks important events of Western modernity in terms of equality. For example, near the end of the eighteenth century, the French revolution arrived as an event of equality—one that marked the appearance of 'the people', and the literary and artistic movements also enacted a dismantling of boundaries and hierarchies. In other words, equality has participated in the configuration of the modern society.

The different chapters of this dissertation have examined education in accordance to the conceptual network of modernity, creativity, instrumentality, and equality. Chapter 1 and Chapter 2, I attend to that in educational discourses, human beings are at the same time subject and object. The neoliberal and the psychological discourses construct creativity as common trait lying in everybody with various degrees, an aspect of calculable individuals and manageable social relations. While these discourses of creativity assume that human beings are capable of creating the world, they turn human beings into objects of study and administration. These objects should go through educational manipulation to serve a social order. Creativity does not mean to transform the world but to find a position in a well-defined social order. As a result, the discourses (re)produce inequality. This phenomenon is also touched upon in Chapter 3, where I describe the workings of neoliberalism in the case of extended TRIZ in Việt Nam, and Chapter 4, where I lay out the scene of Discipline Based Arts Education (DBAE) in the US. Chapter 3 also points to the equality function of instrumentality. Instruments are externalized or/and extended capacities, and according to the TRIZ laws of evolution, they should be designed for easy handling and even become automatic. In the current context of post-humanism, creativity also refers to the capacity of machines. In this way, instrumentality free human capacities from the order of creativity, though this freedom is not absolute. Chapter 4 and Chapter 5 grapple with the instrumentality embedded in the very notion of creation. Creation implies a means-ends way of thinking. I attempt to describe the ways in which creativity does not result from a strong causal process but arrives as an event. The event of creativity may arrive as a matter of being unconditionally responsible for the otherness of others. This arrival of creativity is the coming into the world of the unique human subject. This theoretical setup implies inequality as it assumes territorial divisions. The world is divided into the inside and the outside and the inside

obeys the law of the outside. The event of creativity can also arrive as a matter of equality. Creativity is the arrival of political communities of sense that demonstrate new capacities—new trajectories of meaning and sense.

Discourse and Experience

I have called the five chapters of this dissertation discourse analysis. In educational research, discourse analysis is usually distinguished from narrative inquiry of personal experience, where the purpose of research is not to make explicit the limits of thought but to encounter lived experience, to meet authentic people rather than just the subjects produced by discourses. While this distinction makes sense, discourses are always concrete experience, not in the sense that they represent experience but in the sense that they form our fabric of experience. In this dissertation, Chapter 3 is the only project that is based on interviewing and observing people in real life. My research experience related to Chapter 3 was different, but this does not amount to the conclusion that the people I met for Chapter 3 were more real. I have been infatuated with people whom I meet in books. I care about the precarious events of experience that may happen as we read and write no less than the limits of thought that discourses inscribe. I want to invite my readers to enjoy the delight and difficulty of theoretical practices. Our struggle with a particular theory indicates not the abstractness of the theory but the material labor of theoretical practices.

I have also realized that discourses are not discerned from each other by the central concepts that the speakers articulate but by the experience that the listener is capable of. To illustrate the point, I will not go back to Chapter 3 but tell an anecdote. In a recent conference on curriculum studies, I met a deaf scholar who brought with him two interpreters. This made visible the diversity of languages in the room. I googled the scholar's name, Joseph Valente, and

listened to him speak about deafness as a form of diversity. Valente asked: "What if we stop thinking of the deaf as disabled and start thinking of them as bilingual?" On the same day, I encountered an article that criticizes the discourse of disability or deafness as forms of diversity in the works of deaf scholars and activists. The authors argued that a focus on disability or deafness as diversity functions as a form of bio-politics that works simultaneously to enable and obscure the means by which the state manages life in an increasingly neoliberal world. They also assumed that the discourse presents difference as easily surmountable and hence erases the difficult work of "making a world with others" (Friedner & Weingarten, 2016, p. 1). Does Valente's speech identify with the discourse being criticized? Thanks to his speech, I know that mainstreamed deaf children who live among hearing people feel very lonely, access to sign language provides them with better chance for academic and social success, and schools for the deaf are being closed. However, his speech does not seem a project of social management to me. It was moving. It redistributed the sensible. Valente speaks the Rancièrean discourse of equality rather than the neoliberal discourse of diversity.

As a critical project, this dissertation is not only about enjoying events of experience but also about drawing the limits of thought around creativity. In other words, it tackles existing orders of meaning and sense. For my appreciation of experience, I find Rancière's 'distribution of the sensible' helpful in bringing to the table what matters. The phrase balances discourse and experience, resolves the division and highlights the relations between them. In our everyday life, not only our conceptual moves are framed but also our experience. To show what 'a distribution of the sensible' means, I have sometimes recounted a story that has been circulating for years on the Internet.

> A man divorced and then sued his ex-wife for giving birth to what he called an extremely ugly baby girl, the Irish Times reported.
>
> Initially, Jian Feng accused his wife of infidelity, so sure that he could never father an unattractive child.
>
> When a DNA test proved that the baby was his, Feng's wife came clean on a little secret—before they met, she had undergone about $100,000 worth of cosmetic surgery in South Korea.
>
> Feng sued his ex-wife on the grounds of false pretenses, for not telling him about the plastic surgery and duping him into thinking she was beautiful, The Huffington Post reported. ("WHOA! Man successfully sues wife over ugly children," 2015, para. 1–4)

Some people would say the man in the story is heartless, but I imagine that he must have undergone very strong and violent emotions where his heart beat faster and broke. What matters to me is that the woman, the cosmetic surgery industry, and the man know exactly what beauty looks like and commit themselves to the standard of beauty. Similar situations are common. For example, in schools, teachers and students may know exactly what a good answer to a particular question is like. Creating norms and fulfilling them has been a significant part of education. Creativity as deviations from the norm has been quantified and become a norm. In recent development of neoliberalism, creativity tunes in with standardization and economic competition in such a way that it turns into anything that brings about economic benefits. This dissertation does not propose a vision of good education, but it strives to make room for disciplining oneself out of conformity and inventing new communities of sense in education.

Thankfulness

This dissertation is a tribute to the people who have saved my life in ways that they might not have known. To end the dissertation, I will not be able to make a full list of them, but I will recount some other fortunes in my education, which I think are also stories about creativity.

I have been lucky in schools. When I was in middle school, I was selected to the language arts team of my school to compete with other schools in the district. My score for the first time was 3.75 over 10. It was definitely very low, but not lower than any member in the team. I was not disqualified and remained a member of the language arts team of the school until my graduation. My teachers of language arts cared about my writings, which sometimes they read aloud for the whole class. I was astonished at my words. New trajectories of meaning and sense appeared. In fact, the teachers transformed my words through their reading. They were no longer just my words. In such a space defined by inequality as the school, some people were generous. This generosity gave rise to my proximity to the identity of a writer. When I write, I experience a sense of self. This self is in curiosity and innovation. Writing, especially writing in English, however, has been painful to me in many ways. I am struggling in my relationship with writing and myself as a writer. There are still huge difficulties in cultivating myself as a writer. My finishing this dissertation is an achievement of discipline and self-formation as much as it is a function of equality.

My life is difficult, and my relationship with language is difficult. But in schools I have met my dearest friends. I have a close friend who cares about my problem with language and has invented a kind of pre-language for our communication. This pre-language consists of sounds similar to animal sounds. Together we have also invented new conventions for the language we speak to each other. For example, ‘Jerome’ means rabbit, ‘bird’ means squirrel, and ‘dog’ means

cat. My swivel chair has a proper name. Sometimes we laugh together, and no one else understands why. Life could be fun and sweet, to the extent that discipline, power, and self might become irrelevant while equality remains.

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