Amnon Glassner
Shlomo Back

# Exploring Heutagogy in Higher Education

## Academia Meets the Zeitgeist

Springer

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Amnon Glassner
Kaye Academic College of Education
Beer-Sheva, Israel

Shlomo Back
Kaye Academic College of Education
Beer-Sheva, Israel

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*We dedicate this book to our families with love*

# Preface

This book calls for a revolution in the teaching–learning paradigm in higher education. We believe that such a revolution is needed, given the information age revolution and the needs of the students and the digitized society. But we do not propose a technologically oriented modification of the academic tradition. We believe that simply replacing the "chalk and talk" method with slide presentations or copy–paste applications will not necessarily deepen the students' learning. Rather, we believe that what is needed is that the students determine their own learning.

Therefore, if you, the reader, share with us this attitude, we invite you to examine one possible way of reforming the system. This way is called heutagogy. In the last 5 years, we have experienced heutagogy in our higher education courses. Though limited to courses within the field of educational studies, we believe that what we have found has much broader significance with applications across various disciplines. As we shall see, our unique approach to heutagogy emphasizes the nomadic aspects of the learning process.

We began the journey in exploring heutagogy because we felt that most of the students in our courses did not really learn. Yes, they attended the lectures, wrote everything we said, fulfilled their obligations, and scored high in the exams, but they did not learn in the sense that the courses did not really interest them. For the most part they wanted to earn the academic degree, so their aim was to "pass" the course, checkmark it, and forget about it. Some of them could recall something that happened in the course—an idea, an insight, a happening—but the overall impact of the course was negligible. We felt that learning in an academic environment can have a much bigger significance to the students' minds.

From our experience we learned that given the proper conditions, the students are really engaged in learning. But for this to happen, a genuine paradigmatic modification of the learning processes and the lecturers' roles is needed.

This book reflects a collaborative study in which we wandered in the webs of knowledge and practice to find our own way of leading our students to meaningful learning. As we shall see, our journey has been an inspiring adventure which has helped us rethink our educational identity. We invite you to join us in our journey as we share with you what we have learned about the heutagogic teaching–learning

approach. The order of the authors' names, in the book's title, follows the alphabetical order of the authors' first names.

This is not a "how to do" book. Making heutagogy a "method" will ruin its spirit and intent. We present our ways of doing it to demonstrate its feasibility, not to provide a "model". That is why we put so much effort into explaining heutagogy's philosophy and its rationale, and understanding that the "why" of heutagogy is the most important issue in empowering the students' learning.

**Post Script**. The last months provide an unexpected reason to pursue heutagogy in higher education. We received the present book manuscript for proofreading in April 2020, during the Coronavirus disease 2019 (COVID-19). This pandemic directly influences higher education as the physical environment in which they operate has been closed. Academic learning transforms into remote one. In the last month we experience e-heutagogy (using Moodle and Zoom). Though it is too early to share with you our conclusions, it already seems that allowing our students to learn in their own pace and interests is an appropriate manner to conduct academic learning in such a troubled time. E-heutagogy is clearly a feasible way to deal with such a worldwide crisis.

Beer-Sheva, Israel

Amnon Glassner
Shlomo Back

# Acknowledgements

Many people were involved in the process of writing this book. We would like to thank them for sharing with us their ideas, comments, and discussions. Special thanks go to our students and colleagues who joined us in our adventure, and to the heutagogy workshop members, who developed with us the ideas and practice presented in these pages. Especially, we would like to thank Rakefet Schachar and Smadar Tuval, with whom Amnon co-teaches in two of the cases discussed in the book.

Special thanks to Chris Kenyon, one of the founders of heutagogy, who inspired us to explore the approach and was kind enough to answer our questions, and to Lisa M. Blaschke, for a very fruitful collaboration and discussions. Blaschke has been kind enough to read many sections of the book and her comments were helpful and thought-provoking.

Grace Liyan Ma, the editor of the book, and the two anonymous reviewers were extremely helpful in improving the book and suggesting many thoughtful recommendations regarding its organization and content. Thank you.

We are grateful to Lawrence Liu, Springer Education senior editor, for accepting the book for publication and to all the publishing team for their efforts to make it feasible.

We would like to thank Prof. Lea Kozminsky, the President of Kaye College of Education, for her encouragement to exercise heutagogy and to write the book, and to Kaye College for its support in its publishing.

Last but not least, we would like to thank our families. Without their support this book could not have been written.

# About This Book

The book is divided into three parts. The first, *Points of Departure*, is devoted to revealing heutagogy's theoretical foundations and its basic principles. Chapter 1 "Heutagogy: what it *means* and why it is needed" is a concise introduction to heutagogy. In Chap. 2, we critically follow heutagogy's philosophical roots as discussed by Hase and Kenyon. Especially important is their criticism of the traditional paradigms of teaching–learning and their emphasis on heutagogy's humanistic background.

Chapter 3 critically presents the connectivistic theory of learning that suggests a theory which overcomes some of the traditional accounts of teaching–learning. It also introduces the notion of the "network image of thought", which will be elaborated upon in the follow-on chapters.

Chapter 4 is devoted to the psychological and sociological aspects of heutagogy. We present the Self-determined Theory (SDT) of Deci and Ryan, which deals with the emotional and social needs of the learners. In the second part of the chapter, we discuss heutagogy in the context of the social circle of power. In Chap. 5, we turn to the educational arena. We discuss the three "gogies": pedagogy, andragogy, and heutagogy, and their mutual connections. Chapter 6 reconstructs our philosophy of heutagogy. Based on the philosophy of Michel Serres, we justify heutagogy's basic principles and suggest that learning is wandering in a network. We conclude this part (Chap. 7) with three examples which show how practicing heutagogy is really an old idea.

The second part of the book, *The journey: the case studies*, is a collaborative self-study research, which describes and critically discusses five case studies of courses that were designed using heutagogy (i.e., heutagogy courses) in a university and a college of education.

The data used in this part is collected from students' and lecturers' diaries, reflections and learning outcomes, interviews with students and lecturers, and participatory observations. The findings indicate that heutagogy enhances the students' intrinsic motivation to learn and increases their engagement in the learning process.

Chapter 8 presents the methodology of the research. Chapter 9 discusses the course "Cognition and Education" led by Amnon (the first author). Chapter 10

discusses the course "Youth Cultures" led by Amnon and Rakefet. Chapter 11 discusses the course "Phronesis in Education" led by Amnon and Smadar. Chapter 12 discusses the course "Ethics in education" and Chap. 13 discusses the course "Philosophy of early childhood education" led by Shlomo (the second author). All the cases, except the first one, were conducted in Kaye College of Education. The first case was conducted in Ben-Gurion University. In Chap. 14, we compare and analyze the findings from these cases.

In the third part of the book, *Temporary pier*, we summarize the main insights of the book. In Chap. 15, "toward a paradigm change" in higher education, we discuss the workshop of the faculty members in a college of education, devoted to heutagogy (facilitated by both authors), and suggest that in order to change the conventional paradigm it should become an epistemic community. In Chap. 16, we further illuminate some aspects of heutagogy in higher education by comparing it to another approach to self-determined learning. In the concluding Chap. 17, we ask "what next"? and suggest some possible elaborations of heutagogy.

# Reading the Book

One can read the book in a linear order. In this way, the reader will become acquainted with heutagogy's theoretical basis, proceed to the case studies which exemplify it, and end with some concluding ideas about experiencing heutagogy in the higher education system. Or the reader may begin with the cases and refer to the theoretical sections if and when they are needed. In any case, it is recommended to start with the introduction, which presents the general idea of heutagogy.

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# About the Authors

**Amnon Glassner** is Senior Lecturer in Kaye Academic College of Education. He has two primary research interests: (a) exploring the heutagogy learning–teaching approach in education; (b) exploring teachers' and students' use of creative and critical thinking in learning. He has published in various academic journals.

**Shlomo Back** is a Professor of Philosophy of Education and the Head of the M. Teach program at Kaye Academic College of Education. He was previously the College President and served several times as the Chair of the Israeli forum of the Colleges of Education Presidents. He serves as an academic advisor in many national committees in education.

His fields of research include Epistemology and Ethics, and he is particularly interested in the relationships between theory and practice in teacher education programs. His books include: *The Technical Vision: The Case of Teacher Education* [Hebrew]; *Ways of Learning to Teach* [English and Hebrew editions]. He edited the book *Information, Knowledge and Cognizance: The DNA of Education* [Hebrew].

# Chapter 1
# Introduction—Heutagogy: What Does It Mean and Why It Is Needed




*I think that [heutagogy] begins with contemplating questions such as: What interests me? How do I think I should explore it? How would I like to experience the learning process?*
*At the beginning, it was very difficult for me to appreciate the course's mode of learning. All my life I had learned in a traditional manner. Occasionally I felt that I was being thrown into deep water without a lifeguard. I didn't understand why it was not possible to learn as usual: to get information from the teacher, to process it and to pass the test… But as the course progressed, I succeeded in letting go of my deeply rooted habits and discovered a new learning approach, through which I found in myself a new learner.*
*It was only toward the end of the course that I began to feel different. Knowledge surrounds us and we just have to observe and be interested. Such learning is meaningful to me since I had never imagined that I could learn something from, e.g., a YouTube video or Facebook page. Today I feel that I have learnt more from the process than from the content. I was delighted to discover that there is a different way of learning, which involves me—a genuine learner instead of just a passive "bucket" that is being filled with information. This is a profound change.*
*I felt that I was taking greater responsibility for my learning… expressing my own voice. This way conveys trust in the students' capacities and capabilities.*
*For the first time in my life, I had to evaluate my course grade. It was very difficult for me. I asked myself: do I actually explore, search and deepened my knowledge about the course's subject?*
The above quotations convey the message of heutagogy. But what does heutagogy really mean?

**Abstract** Heutagogy is a teaching-learning approach in which the students themselves determine their learning. In this chapter we define the meaning of the term heutagogy and present its basic principles. Heutagogy goes against the prevailing culture of teaching in academic institutions, which is usually teacher determined. Hence, we address the question of why it is needed. The ideas presented in this chapter will be further elaborated on in the rest of the book.

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## Etymology

In their seminal papers, Hase and Kenyon (2000, 2001) introduced the term *heutagogy* to name their version of the "study of self-determined learning". They did not clarify the term, but in a later publication Hase recalled that "Chris, the linguist that he is, then manipulated the Greek word for self, αύτός [auto], and came up with the word 'heutagogy': the study of self-determined learning" (Hase & Kenyon, 2013, p. 21).

This has to be explained. "Heutagogy" is composed of two words. It ends with *agogia* [αγωγός], which comes from άγω, to lead {as in the terms *pedgagogy* [to lead a child (παΐς)] or *andragogy* [to lead a man (άνδρ)]}. However, there is no Greek word which stands for "heuta". The closest one is self (αυτος), but Hase and Kenyon did not coin the term "autogogy" to refer to self-determined learning. Maybe they didn't want to suggest a learning process which is entirely without a mentor (autodidacticism). As pointed out to the authors by Kenyon, "there are very many 'auto' words, and there is perhaps a tendency to think of anything 'auto' as being impersonal and maybe less valued" (personal correspondence, 2.2019).

Kenyon further clarified that "If we take ή, 'the', and αυτος, 'self', and αγογος 'lead', we obtain *heautosagogos*—which is rather difficult to pronounce and might be confused with something from the dinosaur age. We abbreviated the word to Heutagogy—leading the self, or self-determined learning" (personal correspondence, 2.2019).[1]

## Definition

We shall use the notion heutagogy to mean a teaching–learning approach in which the learners, facilitated by a mentor/teacher, determine their own learning. They decide what, how, with whom, when, and in which environment to learn. They also choose how to evaluate their learning and how to present the knowledge they had learnt about the subject matter and about themselves as learners.

## Preliminary Objections

Heutagogy faces a seemingly impassable obstacle. It runs against the academic paradigm of teaching and learning (at least at the undergraduate level of studies).

[1] A different explanation is suggested by Parslow. For him, the term "heuta" originates from the Greek verb heureskein [ευρετικές] which means "to discover" (Parslow, 2010, p. 101). "Heuristic", he continues, "is defined as a method of teaching by allowing students to discover for themselves (Parslow, 2010, p. 101). Similarly, The Cambridge English dictionary defines "heuristic [as] a method of teaching allowing students to learn… from their own experiences rather than by telling them things" (Heuristic, 2018).

To give one example, a few years ago, Amnon, the book's first author, submitted a paper on heutagogy to an academic journal devoted to the advancement of teaching in higher education. The paper was rejected, not because of its academic merit but because its topic was evaluated as irrelevant to teaching in higher education.

The editor of the journal stated that "heutagogy is hardly feasible to only 1% of the academic courses, so it will not interest our readers". Although he agreed that "everything can be learned in any method", he explicitly referred to Mathematics and Science courses, in which there is much material to deliver in a relatively short time, making lecturing the only way to "cover" it. Therefore, faculty members will not be interested in a method like heutagogy, which requires ample time, something they do not have. And as he concludes, "it will be a waste of time to further discuss the issue".

This editor is right, of course. The possibility of delivering a heutagogy course in academia seems to be highly limited. Usually, the limitations come from current institutional requirements. The lecturer in higher education does not have complete academic freedom and lacks control over many aspects of the courses he delivers. For example, he is required to submit a syllabus with a definitive structure. The syllabus is seen as a double contract: between the institution and the lecturer (who is entitled to teach the course) and between the lecturer and the students (who should know their rights and obligations).

Hence, an acceptable syllabus communicates to the students an accurate description of the course. This includes the course's aims, the topics to be covered, the course's structure, the assignments and assessments that students will be responsible for, and the weight of each of them in the final grade. For this to happen, the course should be preplanned to the point of deciding ahead the content of each lesson and what exactly the students should read in preparation for it. To construct such a syllabus means that the course is completely teacher-determined.

Moreover, in most courses, there is a scoring system according to which the evaluation is "norm"-based and not criteria-based. The teacher must scale the learners in a "normal distribution" curve (and add or subtract certain "factor" if the students deviate from the normal grade). These regulations aim to standardize the learning process, ensure that the students are treated on equal terms, and guarantee that they get the required knowledge from their lecturers. Such an objective assessment system cannot leave the evaluation process in the hands of the students, who might use it for their own benefit.

We shall devote Chap. 2 to discussing the educational shortcomings of this paradigm, and why it is detrimental to meaningful learning. Here we shall point to its more general deficiencies.

## Why Heutagogy?

In a word, heutagogy is needed because the current higher education teaching–learning paradigm fits neither to the learners' needs nor to the demands of our information age society.

### *The ICT Revolution and the Changing Concept of Knowledge*

Let us begin with the technological revolution. The computer, the internet, the tablet, and the smart phone have transformed our lives. Social networks (e.g., Facebook or WhatsApp), search engines (e.g., Google or Bing), collaborative websites (e.g., Wikipedia), clouds (e.g., Google Drive or I-Cloud), communication tools (e.g., Zoom) and virtual reality applications (e.g., Second Life) have radically changed the students' environment.

The digital revolution is akin to two previous revolutions: the transfer from an oral culture to a hand-written one, and the passage from the hand-written culture to a press-based one. The two previous revolutions changed the ways in which the notion of knowledge was conceptualized and had a crucial impact upon the higher education of their time. For example, writing spares the importance of rote learning of texts, and printing enables mass learning in secular settings. The digital revolution had similar effects (Floridi, 1999; Serres, 2015; Toffler, 1970).

Knowledge is especially affected. It is now stored and distributed in the web. It is accessible and no more teacher dependent. Moreover, its size constantly increases, and it changes almost daily. Formal learning can take place anytime and anywhere, as is evident in the rapid spread of the Massive Open Online Courses (MOOCs).

The impact of the information revolution is felt everywhere. More accurately, everywhere except the classrooms of universities and the colleges. Academic teaching seems to be immune to the ever-changing world outside its fences. It does not adjust itself to the new "cut and paste" culture, in which the cloud replaces the memory, the web replaces the library, and the *homo zappiens* replaces the *homo sapiens* (literally, the wise man) (Veen & Vrakking, 2006).

In an age when the written word is losing its priority to the emoji, every message has to be extremely short, and every stimulus should be as colorful, noisy, and energetic as possible in order to be recognized. Outside the academy, the students learn by freely surfing the web or consulting the wisdom of the masses. Such learning is barely present in the prestructured academic environment in which the talk and chalk lectures or even the slide presentations still prevail.

However, the required transformation means that teaching, itself, has to be modified. For "The Teacher" to survive, his aims, roles, and responsibilities have to be re-conceptualized and re-defined. The "why", "what", and "how" of higher education should be revisited. Teaching methods and practices should be adjusted to the

digital age. The concepts of "classroom" and "lesson" have to be replaced by new learning environments.

But it is not only a problem of the methods of delivery. Academic education has become very domain specific, strictly instrumental, and highly driven by tests and scores. (We will have much more to say about this in the chapters entitled "Philosophical Roots" and "The philosophy of Heutagogy".) It barely meets the liberal studies ideal of learning for its own sake. It neglects the idea that learning, besides being instrumental, should also, perhaps mainly, aim to enhance the learner's personality.

Even academic vocational preparation becomes problematic in an era in which workplaces are constantly changing and require unforeseen and seemingly different types of workforce. What they need is a graduate who knows how to learn (Pellegrino & Hilton, 2012). In the list of twenty-first century competencies (Partnership for 21st Century Skills, 2007), it is a prime requisite of current higher education, but the common delivery methods still empower memorization and rote learning.

## *Educating the Next Generation*

The problem of today's educators is not simply how to adjust the learning system to an era of rapid change. It goes much deeper, for, as sociologist Bauman (2005, 2008) observes, formal education becomes irrelevant or even destructive to the needs of our next generation. We live in a postmodern (or "liquid") world, in which the pace of the changes accelerates daily. In our consumerist standards, what is new is always better. The last upgrade is always an improvement, and the "just arrived" is indubitably preferable. There is no "past" that has to be sustained, and no tradition that has to be maintained, because they may prevent one's chances of adjusting to the ever-changing circumstances.

On the contrary, conventional academic studies are by their nature conservative, steady, and stable. They aim to preserve and deliver to the new generation those ideas, ideals, theories, or attitudes which seem to have an ever-lasting significance. But if those articles of faith barely survive the day, academic education loses its raison d'être.

## *The Moral Dimension*

In this context, the ethical sphere is especially problematic. According to Hans Jonas, modern technology, "propelled by the forces of market and politics, has enhanced human power beyond anything known or even dreamed of before" (1984, p. ix). Consequently, the increasing power of humans over nature enhanced by technology has changed the ethical meaning of the nature of human action (Serres, 1995).

The basic premise of traditional ethics was that man's life is played out between what is necessary, that is, nature, and what is contingent, his own actions. In no way was it thought that man could change nature. Human acts were defined as those that created direct good or evil acts toward other human beings, and moral obligations were considered the direct responsibility of man toward his fellow men. But the technological power created a new situation. Good and evil can be inflicted indirectly by changing the natural conditions that might cause pain and suffering to other human beings and other creatures.

This situation opens a new dimension of ethical relevance for which there is no precedent in traditional ethics. The central moral question has to focus more on how to prevent evil and suffering than on how to gain happiness and well-being. It raises the question of how technology affects the nature of our behavior, demanding a re-consideration of the ethical dimension in education in general, and in higher education in particular. Clearly, higher education should deal with the issues of human suffering and evil, well-being and happiness, and not only with human scientific knowledge, wealth and material prosperity. Notably, it should explore the moral aspects of current digital technology.

This urge has another facet. In the neo-liberal regime emerges a new ideal type of person, the "indebted man" (Lazzarato, 2012). His subjectivity is formed within the logic of competition; he is a calculating, instrumentally driven "enterprise man" (Ball, 2013, p. 132). Being an "entrepreneur of himself" (Foucault, 2008, p. 226), he feels free, but "his actions, his behavior, are confined to the limits defined by the debt he has entered into" (Lazzarato, 2012, p. 31).

This man is deprived of the ability to govern his or her time, or to evaluate his or her own behaviors, so that his/her capacity for autonomous action is strictly shortened (Zizek, 2014, p. 44). To use the current jargon, we may say that he has fake autonomy. This is an especially dangerous situation for the future of democracy, which presupposes that the citizen has genuinely free choice in the political sphere.

Heutagogy is an attempt to deal with these "malaise of modernity" (Taylor, 1991). It struggles with the fake autonomy of the "entrepreneur of himself" by empowering the learner to be a genuine agent. We believe that heutagogy suggests one of the best available means to cope with the needs of current students and their society.

Heutagogy, we declare, is called for if we want:

- To empower the learner as a human being and enable him to be an autonomous agent;
- To educate a citizen who knows what democracy is and feels a moral responsibility to struggle for a better world;
- To motivate the students' learning process and make it meaningful for them;
- To bridge the gap between the formal learning process and the networked world we live in.

## Principles

Blaschke (2018) suggests four key principles of heutagogy: learner agency, self-efficacy and capability, reflection and metacognition, and nonlinear learning. In Chap. 5 we present these principles and discuss them. Here, let us briefly say that:

Learner agency means that "…to be an agent is to intentionally make things happen by one's actions" (Bandura, 2001, p. 2). When applied to learning, it means that the learner determines his own learning.
Self-efficacy and capability mean that the learner has the attitudes and skills to be a self-determined learner.
Reflection and metacognition mean that much of the learning process is devoted to learning how to learn. Learning how to learn is facilitated by reflection on the learning process.
Nonlinear learning refers to the networked structure of today's chaotic web of knowledge. Learning resembles wandering in a mesh network (see Chap. 3, Appendix), and its aim, direction, path and content cannot be predefined and prescribed.

In what follows, we discuss these principles and their practical implications. In Chaps. 2 and 6, "Philosophical Roots" and "The philosophy of Heutagogy", we justify them with the following assumptions about the nature of knowledge and learning:

- Knowledge is arranged in a mesh-type network. Learning is wandering in this network. Learning is tying all possible kinds of connections between all available pieces of knowledge regardless of their origin or specific domain. For the students, learning is an accompanied journey in the huge ocean of knowledge or in the sea of a specific domain or issue.
- Learning is a dialogue between the student, his peers, and the teacher, who follows him in the journey, and between the student and the ocean of knowledge he encounters in his path.
- Learning is meaningful (or deep) for the learner. It is not just a cognitive process but engages the learner's entire personality.
- Learning is accomplished for its own sake. It might, of course, have instrumental ends, but if there is no bearings/influence on the personality of the learner, it is less meaningful for him (cf. Masschelein & Simons, 2013).
- Learning has an essential ethical aspect. Knowledge should lead to a better world or society. It should promote freedom, democracy and tolerance toward others.

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# Part I
# Points of Departure

# Chapter 2
# Philosophical Roots




**Abstract** The publication of *From Andragogy to Heutagogy* (Hase & Kenyon, 2000) marks heutagogy's starting point. In this chapter, we examine Hase and Kenyon's philosophical presuppositions. This examination concerns two issues: the epistemological justification of heutagogy and its humanistic perspective. Following Hase and Kenyon (2000, 2013), we discuss three epistemological paradigms: empiricism, rationalism, and constructivism. Hase and Kenyon consistently reject the first. In their 2000 publication, they embrace the rationalistic epistemology and advocate Emery's ecological paradigm. In the 2013 publication they replace it with the constructivist paradigm. We show, in the first part of the chapter, that none of these paradigms provide heutagogy with a proper justification, because they all advance teacher-determined learning. The second part of the chapter is devoted to Carl Rogers, whose learner-centered approach has been a major influence on heutagogy. We present existential-phenomenology, which justifies Rogers' humanistic psychology, and discuss the notions of becoming, *Bildung*, dialogue, and freedom as essential characteristics of any meaningful learning.

In their seminal paper,[1] Hase and Kenyon claim that "given the right environment, people can learn and be self-directed in the way learning is applied" (Hase & Kenyon, 2000). Hase and Kenyon further assert that current developments in philosophy, social sciences, and education support this claim, and they believe that adopting it can have a revolutionary impact on the educational practice. Epistemology investigates the nature, origin, and validity conditions of the concept of knowledge. There is an obvious connection between epistemology and learning. Education aims that the individual becomes knowledgeable. Whether the knowledge is theoretical (e.g., philosophy, science) or practical (e.g., ethics, vocational), propositional ("knowing that"), or procedural ("knowing how"), knowing thyself, knowing someone else, or knowing something, it is quite impossible to know without learning.

[1] Also in its immediate sequels: Hase and Kenyon (2001, 2003), or Hase and Tay (2004). Since these papers convey the same ideas, we focus on the first, Hase and Kenyon (2000).

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## Three Epistemologies

In their various publications, there are three main epistemologies that Hase and Kenyon consider as candidates for providing a philosophical justification to heutagogy: empiricism, rationalism, and constructivism. These are rival accounts of knowledge, and they lead to different conceptions of learning and different educational practices.

Hase and Kenyon reject the empiricist epistemology, claiming that the methods of teaching and learning influenced by it are mistaken (Hase & Kenyon, 2000). However, it is not clear which alternative epistemology they accept. In their early publications (e.g., Hase & Kenyon, 2000), they adopt an "ecological" stance (a variant of the rationalistic epistemology). In their later ones (e.g., Hase & Kenyon, 2013), they embrace the constructivist epistemology, although they immediately assert that it cannot justify heutagogy.

In this part of the chapter we present these different accounts and conclude that Hase and Kenyon fail to provide an epistemological justification for heutagogy. In the following chapters, we suggest a "networked" epistemology (Serres, 1968, 2016; Deleuze & Guattari, 1988; Downes, 2012), which offers a more adequate philosophical justification for heutagogy (see Chaps. 3 and 6).

### *Against Empiricism*

In their first papers (Hase & Kenyon, 2000, 2001, 2003; Hase & Tay, 2004), Hase and Kenyon maintain that heutagogy cannot be justified by the traditional empiricist epistemology but rather by a ground-breaking "ecological" epistemology. They attribute this epistemology to the Australian psychologist Fred Emery.

In a paper entitled *Educational paradigms: An epistemological revolution* (1974 [1981]), Emery contrasts these two epistemological paradigms. He discusses their opposing educational impact and supports the claim that the ecological paradigm should replace the traditional one.

#### The Traditional (Empiricist) Paradigm

According to Emery, the "traditional" paradigm belongs to the empiricist worldview. Empiricists, such as Locke, Berkley, and Hume, are realists. They believe that "…material objects exist externally to us and independently of our sense experience" (Hirst, 1967, p. 77). Empiricists claim that the world is a huge machine, which consists of discrete atomic facts (cf. Wittgenstein, (1922 [1961]). It can be fully explained once those facts are identified and the lawful connections between them are discovered.

Another empiricist supposition is that humans are born *tabula rasa* (blank slate), and gain knowledge by noting which perceptions tend to occur together. We experience the gross similarity of identical stimulations and from them we infer the existence of classes of objects and from our knowledge of the associations of classes of objects we infer that there are relations such as those of cause and effect (Emery, 1974 [1981], p. 6).

The key verb in the last sentence is *infer*. The ability to infer presupposes an innate logical mechanism that includes mental operations such as abstraction and generalization. Using these operations, humans can know the world.

The empiricists contend that the scientific method is the only path to attaining valid, verifiable knowledge about the world. It begins with inductive reasoning in which the scientist infers general hypotheses from sense-data gained by observations (or experiments). It further proceeds to confirming these generalizations by testing them in further experiments or observations. The confirmed generalizations should yield a theory which is supposed to be systematic, coherent, and cohesive.

According to the traditional paradigm, to merit the label "knowledge", subjective experiences must become objective, through "repeated observations under experimental conditions, or the effects of the individual nullified by a random sampling of observers" (Emery, 1974 [1981], p. 6). In social sciences, this worldview culminates in the behavioristic theories of conditioning and learning.

The traditional paradigm has important educational consequences. First, the educational system adopts the *tabula rasa* hypothesis. The students' minds resemble an empty "container", which has to be filled. This hypothesis is often called "the bucket theory of mind" (Popper, 1972). The teacher's aim is to fill the students' minds with the "material" they have to acquire in order to become respectable members in their society. (Ideally, this pouring of knowledge would happen automatically, without a teacher).[2]

Second, as already mentioned, subjective experiences are inadequate and sometimes found to be misleading sources of verified knowledge. Therefore, the teacher's job is to fill the students' heads with well-established, objective knowledge (Emery, 1974 [1981], p. 45). Such "objective" knowledge is usually abstract and seems to be unrelated and irrelevant to the students' personal experiences. In many cases, it even contradicts the students' presuppositions and opinions (e.g., that the earth is flat).

While transmitting objective knowledge, the teacher corrects the students' misconceptions and false presuppositions. As a result, he tacitly instructs them to mistrust their naïve and subjective personal beliefs. This corrective mission can take place only if the educational method is pedagogical, that is, teacher-centered.

Third, learning is seen as a knowledge acquisition process. The process is systematic, linear, and hierarchal. To be efficient, it must be well planned and proceed from the particular and the concrete to the general and the abstract, and from the simple to the complicated. The common rule is "teach the parts first and then the combination of these parts into larger wholes".

[2]Such a machine that pours knowledge into a student's brain is described in the *Nürenberg funnel* story (Kaiser, 1946). We thank L.M. Blaschke for the reference to this poetic Gedanken-experiment.

Given the abstractness, systematicity, complexity, and the amount of the "material" that should be poured into the students' heads, learning must be organized and monitored by well-informed adults, who know how to offer the appropriate associations, abstractions, and generalizations to the learners. It is impossible to learn the curriculum without an experienced instructor who slices the material into its basic elements and structures the educational environment to ensure that the students encounter the proper stimuli (cf., Bredo, 1996).

Fourth, the traditional pedagogy assumes a direct link between teaching and learning, for example, as it is posited in the behaviorist conditioning theories. The teacher lectures (stimulates) and the students respond by reflecting back what they have acquired (their "knowledge"). The learners are expected to act like "mirrors", and to react "correctly" to the stimuli they receive. Successful learning is based on attending to narrow stimuli presented by a teacher, the ability to remember that which is not understood, and repeated rehearsal (Emery, 1974 [1981], p. 29).

Consequently, in practice, the teacher lectures, instructs, or demonstrates the material that the students must pay attention to and memorize. In addition, the students also learn from textbooks and from engagement in lab experiments. Following the acquisition phase, strict evaluation tools (exams) objectively measure what remained in the students' buckets, thus determining their success (Emery, 1974 [1981], p. 31).

### Criticizing the Traditional Paradigm

The empiricist epistemology seems to be problematic. As Cassirer remarks (using a well-known example): "If we group cherries and meat together under the attributes red, juicy and edible, we do not thereby attain a valid logical concept but a meaningless combination of words" (Cassirer, 1923, p. 7).

Another problem is the fallacy of induction. Since there is no logical guarantee that the future will resemble the past, the whole inductive process is invalid (Hume, 1739 [1978]). This fallacy leads Popper (1959, 1969), who is not mentioned in Hase and Kenyon, to distinguish the process of discovery from that of justification.

For Popper, the logic of the scientific method is not that of verification but that of falsification. The scientific method is not a process of forming generalizations reached by induction and confirming them by observation or experimentation. Science aims to refute generalizations, no matter how they were arrived at. Scientists have to look for falsifying evidence instead of facts to validate their hypotheses. They must suspect any scientific discovery and see their theories as true for the time being.

Popper's view reflects the changes in physics after Einstein, Bohr, Heisenberg, and other scholars. It indicates that our scientific knowledge is fallible. More generally, as Popper (1947 [1995]) insists, to be suspicious is to be a citizen of the "open society", who must seek to eliminate mistakes by critical thinking.

In addition to the problems of induction and the nature of the scientific method, the empiricist realistic presupposition is questionable. Anti-realists claim that it cannot be true. First, because our sense-impressions could deceive us, as is evident in the

chapter on perceptual "illusions" found in any introduction to psychology textbook. More generally, it is possible to claim that perception itself is "theory-laden" (i.e., that we interpret what we sense in the very act of perceiving it), and, following Descartes, it is even conceivable that our experience as a whole can mislead us.

Realism has one major problem: justifying the truth of my representations depends on the possibility of comparing them to the external world. However, I cannot compare the world with my mind because I cannot "leave" myself and compare the content of my mind with the world (Von Glasersfeld, 1995, p. 6).

Another problem facing empiricism is that the *tabula rasa* hypothesis has been scientifically refuted (Pinker, 2002). Starting with Chomsky (1959) and the cognitive revolution in psychology, it has become apparent that it is impossible for the neonate to learn anything under the blank slate hypothesis. Some of his behaviors cannot be explained without postulating innate knowledge (this is a modern version of Plato's argument in *Meno* (Plato, 1997; cf., Stich, 1975)).

To return to Emery, his own refutation of the *tabula rasa* hypothesis is based on Heider's theory of perception, as well as on the philosophical writings of Ernest Cassirer (Emery, 1974 [1981]). Following Heider, Emery questions the empiricist epistemology, which assumes a direct link between one's perceptions and the objects perceived. For example, this assumption cannot explain the serial or causal relations between events since our senses cannot perceive seriality or causality. We cannot explain the perceptual constancies of objects, because we receive different sensible stimuli as we move toward the object or when the object is in different light conditions (cf. Heider, 1970, p. 131).

The shortcomings of the traditional paradigm have important educational implications. The student is not an empty bucket, having a passive role in the learning process. He or she has an own personal voice, which influences how and what they learn. Thus, there is no direct link between teaching and learning.

Consequently, the traditional view of the teaching–learning process as a linear one, going from transmission to testing through memorisation, retrieval, and application of received knowledge, is mistaken. Once the *tabula rasa* hypothesis fails, education should free itself of this wrong paradigm. It is necessary to get rid of the empiricist epistemology and abandon its practical implications.

The traditional paradigm has another important drawback: it governs the schools' form of life. According to Emery, the educational system requires disciplined students. It creates the "serious drudgery" experience, in which the learners' independent goal-setting efforts are irrelevant. The school encourages a fight-flight dependency behavior, leading to "bullying, divorce of means and ends, cheating, self-centeredness, [and] hatred of learning…" (Emery, 1974 [1981], p. 45).

Hase and Kenyon accept Emery's analysis wholeheartedly, and in their 2000 publication (and its immediate sequels) adopt his "ecological" paradigm of education.

## *Rationalism: The Ecological Paradigm*

In the context that concerns us here, the term "ecological" means "…that some external factors have to be incorporated in psychological theorizing about perception" (Radler, 2015, p. 401). The ecological paradigm theorizes that the environment has certain features needed for human survival, and humans have an innate capability to extract (i.e., not to infer) from the environment the information they need to know about these features (Emery, 1974 [1981], p. 14).

Epistemologically speaking, this is a rationalistic approach. As we understand the term, for the rationalist, humans are born with innate knowledge. The major rationalistic philosophers are Plato, Descartes, Spinoza, and Leibniz. The main scientific theories derived from this epistemology are Chomsky's theory of linguistics (1959) and the theories of the children's theory of mind (see: Pinker, 2002; Gopnik et al. 1999; Wellman, 1990). Learning, in these theories, is a process of adjusting the innate knowledge of the new-born to the environment he lives in (e.g., a certain language, certain gestures, etc.).

Emery bases his account on the psychological theories of Heider and Gibson. In both "…the universal is grasped in the grasping of the particular: the universal is not achieved by a separate intellectual process of abstraction" (Emery, 1974 [1981], p. 24). This postulates an "intellectual insight".

Heider deals with the question of how to explain "that in the sea of changing sensations we see the unchanging, invariant order that is imposed by the object on the light rays that reach the eyes" (Emery, 1974 [1981], p. 12). In response, he states that the environment is recognized as having an informational structure at the level of objects and their causal interactions, and the human perceptual systems can detect and extract that information "despite a great deal of 'noise' at the sensory level" (Emery, 1974 [1981], pp. 12–13; 15).

According to Heider, the stimulus properly provides the information but we need to have some way to read this information. It is like reading a book in a foreign language; the information is all there, but the reader cannot read it. The information "has to be read through organizing processes…" (Heider, in: Ickes (1976).

Emery claims that an epistemology compatible with Heider's views has been suggested by Heider's colleague, the philosopher Ernst Cassirer. Cassirer (1923) is influenced by the Gestalt psychology. Opposing the empiricist epistemology, he believes that no phenomenon manifests itself in isolation, since it is always a part of a Gestalt which is "not merely the sum of its individual parts, but every single part assumes in it its proper place and proper function…" (Parszutowicz, 2015, p. 87).

For Cassirer, "…the presentation of an object is not a work of 'projection' but of 'selection'" (Cassirer, 1923, p. 292). In projection, he says, citing James, "…all our sensations at first appear to us as subjective or internal, and are afterwards…'extradited' or 'projected' so as to appear located in an outer world" (James, 1890, II, p. 31). In "selection", on the other hand, the presentation of an object "rests on an intellectual selection made among our sense perceptions, especially in the field of visual and tactual impressions" (Cassirer, 1923, p. 292).

Cassirer believes that projection and selection produce two different types of concepts: "generic" and "serial-genetic". "Generic concepts are yielded by a process of abstraction and naming, e.g., of naming species and genus". Serial-genetic concepts, on the other hand, are yielded by "the perception of the serial order generated in nested spatio-temporal events" (Emery, 1974 [1981], p. 24, 26).

Cassirer believes that the notion of function has to override the notion of substance. As Riepple explains, "Cassirer (1923) appealed to a new logic that was to replace 'properties' with 'relations'" (Riepple, 2006, p. 476). Instead of focusing on an object or event as being subsumed under a concept, we focus on how objects or events are lawfully related. We shall return to this idea in Chap. 3 referring to the network or connectivistic conception of knowledge.

According to Emery, the differences between the generic and the serial-genetic concepts require two different learning capacities. Logical abstraction and inference within those symbolic systems require skills such as identifying and handling abstract similarities. But these skills are not predictive of the "ability to identify serial-genetic invariances in non-formal systems, i.e., to detect order when we see it…" (Emery, 1974 [1981], p. 28).

"Education" emphasizes Emery, "is first and foremost the education of our perceptual systems to better search out the invariant characteristics and distinguishing features of our personal, social and physical environments" (Emery, 1974 [1981], p. 34).

For Emery, "…the central problem for education is no longer which minds can achieve conceptual knowledge and undertake conceptual operations" (Emery, 1974 [1981], p. 30). In the new paradigm, the central question is "what kinds of environments best enable all minds to exercise their ability to perceive deeper orders of invariance" (Emery, 1974 [1981], p. 30).

The focus becomes enhancing the thinking and learning instead of rote learning and memorization (Emery, 1974 [1981], p. 34, 36). Consequently, "in the new paradigm teachers must act so as to vary what is before the student's eyes whilst their own presence passes unnoticed" (Emery, 1974 [1981], pp. 39–40). Interestingly, Emery does not mention the Socratic questioning method, exemplified in *Meno* (Plato, 1997, $82^{b}$-$85^{d}$), which provides an illustration of this teaching–learning approach.

Hase and Kenyon fully embrace the new ecological paradigm. They explain that the shift to the new paradigm requires a process of unlearning. We have to learn how to learn from our own perceptions and suspect "forms of knowledge that advance themselves by systematically discounting direct knowledge… of things, events and processes" (Emery, 1974 [1981], p. 41); cited in Hase and Kenyon 2000).

Hase and Kenyon also adopt from Emery (and Heider) the idea that according to the new paradigm people can understand their world by generalizing from their perceptions, and perceiving invariance. Thus, "people …can be led to ideas rather than be force fed the wisdom of others, and thereby they enhance their creativity, and re-learn how to learn" (Hase & Kenyon, 2000).

The last quotation shows that the ecological paradigm is revolutionary in a political sense as well. Teaching learners to rely on their own experience might not be

welcomed by certain regimes. It might encourage non-orthodox points of view and question authoritarian ideologies. Teaching learners to detect relationships might lead them to recognize hidden agendas and discover the moral wrongdoing in their society.

However, Hase and Kenyon do not embrace Cassirer's stance. They do not adopt his idea that in the new educational paradigm, relations should replace concepts, function should replace substance, and extraction should replace inferring.

In their later publications (e.g., 2013), Hase and Kenyon replace Emery's ecological paradigm with the constructivist account of knowledge and learning. They do not explicitly mention this change, though in a private communication (12.2.2019) Hase informed us that "being critical of pedagogy and didactic approaches seemed to get in the way and distracted people from the real message of heutagogy. So, we left it out".

But let us suggest a more principled reason for this move. The ecological paradigm is more learner-oriented than the traditional one, but it does not justify the idea of self-determined learning. The teacher still has the leading role in arranging the learners' environment. He or she is responsible for making the learners' minds "exercise their ability to perceive deeper orders of invariance" (Emery, 1974 [1981], p. 30).

As can be seen in Plato's (1997) story, in which Socrates leads Meno's slave to discover a mathematical truth which he unconsciously already knows, the role of a teacher in determining the learning process remains intact. Emery's ecological paradigm only relocates the focus of the teacher's activities. The teacher should concentrate on a different set of skills, that is, learning to extract instead of learning to infer, but this does not change the teacher–learner hierarchical relationship.

Although there is more place for the learners' life experiences in the learning process, they do not necessarily lead to self-determined learning. The ecological epistemology may encourage a new type of pedagogy, but not necessarily in the direction of heutagogy. Therefore, it does not suffice to justify heutagogy as an educational approach.

And there may be a more fundamental argument against the ecological paradigm. The last decades of the twentieth century were the era of postmodernism. Notions such as reality, truth, validity, and objectivity were deconstructed and became dubious (e.g., Von Glassersfeld, 1995). An epistemology which advocates them seems to be unfitted for this *Weltanschauung*.

## *The Constructivist Stance*

Hase and Kenyon assert that heutagogy is "underpinned" by the "assumptions of the philosophy of constructivism" (2013, p. 20). For Hase and Kenyon, constructivism "encourages experiential learning as a means of loosening the educators' control on the learning processes" (Hase & Kenyon, 2013, p. 20). According to their account, the main tenet of the constructivist philosophy is that the learners are "creative, actively

involved in their learning and there is a dynamic rather than passive relationship between the teacher and the learner" (Hase & Kenyon, 2013, p. 20).

But, immediately following this brief characterization, Hase and Kenyon state that constructivism cannot fulfill this aim because "…it did not have the impact on lessening the control of the learning experience by the teacher and hence… [T]he teacher is still actively designing the learning task and process…" (Hase & Kenyon, 2013, p. 20).

Constructivism, however, does not attempt to lessen the teachers' control, nor does it aim to free the learner from the teacher's dominance. On the contrary, while encouraging a radical change in the teacher's role—from transmitting knowledge to helping learners to learn—constructivism still regards the teacher as determining the learning processes.

One reason for this attitude is that not every construction of the learner can be accepted. Some of his constructions, especially if he is a child, are unavoidably full of "misconceptions". Hence, there is a need for a teacher who knows how to enable the learner to detect and correct them.

But constructivism has a more principled reason for preserving the teacher's role in determining the learning process, which has to do with the comparison between learning and scientific inquiry. Let us elaborate on this point.

Constructivism, according to Hase and Kenyon, is based on the idea that people construct their own version of reality using past experience and knowledge, and their current experience. It "places the learner at the heart of the educational experience (e.g., Bruner, 1960; Dewey, 1938; Freire, 1972, 1995; Piaget, 1972; Vygotsky, 1978)" (Hase & Kenyon, 2013, p. 20).

The authors referred to in this citation do not share a mutual philosophy, hence it is quite difficult to understand in what sense "heutagogy is underpinned by the assumptions of the philosophy of constructivism" (Hase & Kenyon, 2013, p. 20). What unifies all the authors in Hase and Kenyon's list of references is that they (i.e., Bruner, Dewey, Freire, Piaget, and Vygotsky) all believe that learning is similar to scientific inquiry, and the learner is like a researcher or a scientist.

### The Learner as a Scientist

Piaget compares the child's cognitive development to the evolution of the human race. Both of them progress along parallel lines. Both express a man's struggle to understand the world around him (Piaget, 1971 [PE], pp. 24–25, 1980).

> The idea that we have to look at the child as a young scientist means that… the student will acquire "a methodology that can serve him for the rest of his life, …he will learn to make his reason function by himself and will build his own ideas freely" (Piaget, 1972, p. 94).

The analogy with the scientist highlights that "…to understand is to discover, or reconstruct by rediscovery" (Piaget, 1972, p. 20), as opposed to understanding by being told. Using reasoning systematically enables both the scientist and the child to investigate and invent.

A similar idea is expressed by Vygotsky. Writing about language learning, he maintains that "…the child must make a basic discovery—namely that one can draw not only things but also speech. It was only this discovery that led humanity to the brilliant method of writing by words and letters; the same thing leads children to letter writing" (Vygotsky, 1978, p. 98).

According to Bruner, "intellectual activity anywhere is the same, whether at the frontier of knowledge or in a third-grade classroom. …The difference is in degree, not in kind" (Bruner, 1960, p. 14).

As for Dewey, he believes that having shops and kitchens in the school provides "opportunity for the kind of activity or for the acquisition of mechanical skills which leads students to attend to the relation of means and ends". He emphasizes "It is the same in principle as the ground for laboratories in scientific research" (Dewey, 1938, pp. 84–85).

Dewey further emphasizes that the scientific method is the only authentic means we have for getting at the significance of the world in which we live. "It means that scientific method provides a working pattern of the way in which and the conditions under which experiences are used to lead ever onward and outward" (Dewey, 1938, p. 88).

Finally, Freire holds that "…apart from inquiry, apart from the praxis, individuals cannot be truly human". He stresses that "projecting an absolute ignorance onto others, a characteristic of the ideology of oppression, negates education and knowledge as processes of inquiry" (Freire, 1972, p. 72). He further asserts that: "Problem-posing education bases itself on creativity and stimulates true reflection and action". It develops "persons as beings who are authentic only when engaged in inquiry and creative transformation" (Freire, 1972, p. 84).

When Hase and Kenyon declare that "heutagogy is underpinned by the 'assumptions of the philosophy of constructivism'" (2013, p. 20), we suppose that they have in mind the analogy between the learner and the scientist.

This analogy has one essential caveat. The young learner has to be educated to be a researcher. He or she needs a teacher to direct them in their inquiries. Unlike the scientist, who is usually self-determined, the child is not mature enough to be self-determined. Since his cognitive capacities are still developing, they require proper guidance for their full enhancement. He needs a teacher to expand his "proximal development zone" (Vygotsky, 1978).

As Piaget emphasizes: "the teacher is needed to provide counter-examples that compel reflection and reconsideration of over-hasty solutions. What is desired is that the teacher … should be …mentor stimulating initiative and research" (Piaget, 1972, p. 16).

It might be that Hase and Kenyon's criticism of the constructivist philosophy is due to the fact that all the scholars they rely on discuss children's learning in formal education settings. It is questionable to what extent the constructivist insistence that the teacher determines the learning process remains valid with regard to adult learning. We shall return to this issue when we discuss the andragogic approach to learning (see Chap. 5).

Scientific inquiry is a special case of a broader worldview. It is one strategy in which humans adapt themselves to their environment. To see the educational significance of this idea we must look at the philosophy of constructivism.

## Radical Constructivism

From an epistemological point of view, constructivism advances a revolutionary stance. It advocates the idea that knowledge is a human construction needed for the species' survival in its ever-changing environment.

Philosophical constructivism has two forefathers, Vico and Kant, who are not mentioned in Hase and Kenyon's list. Vico's (1710 [1988]) aphorism *Verum esse ipsum factum* ["the truth itself is made"] presents his belief that our knowledge is constructed by us (see Von Glaserfeld, 1995, p. 37).

Kant (1781 [1999]) was the first to state that there are limits to humans' possibility to know the world. He distinguished between the *noumenon* (the world "in itself") and the *phenomenon* (the world as it appears to us). Humans, he claims, have access only to the phenomenal world, so that there is no "transcendental" (external to sense experience) verifiable knowledge about the world.

According to Kant, man has an innate cognitive mechanism that determines how he perceives and interprets his sense impressions. First, by means of an innate mathematical knowledge, the individual "locates" his sense impressions in a predefined Euclidian space and linear time dimensions. Then, he organizes the sense impressions using twelve innate cognitive categories referring to the quality, quantity, causality, and modality of what is perceived.

Using these categories, and with the help of certain innate principles (a priori true statements, such as "every occurrence has a cause"), the individual constructs cognitive "schemes", which enable her to form abstract concepts ("apple") and general statements ("an apple is a fruit") related to her a posteriori (experienced) sense impressions. According to Kant, human knowledge is intersubjective, since humans share the same a priori (prior to any experience) categories and general statements.

Current philosophical constructivism is best expressed by Von Glasersfeld (1995). There are two aspects to Von Glasersfeld's argument. The first is negative. It eradicates the connection between "truth" and "knowledge". The second is positive, establishing a link between "knowledge" and "viability".

The first aspect presupposes an "anti-realist" conception of "truth" and "knowledge". As we have already seen, for the anti-realist, reality is nothing but a human invention. "Knowledge is constructed by the learners as they attempt to make sense of their experiences" (Driscoll, 1994, p. 360). Thus, we must break the connection between knowledge and truth.

Second, Von Glasersfeld's positive argument links between knowledge and viability. The basic idea is that some of our theories work. They make humans better adapted to the environment, lead to successful predictions, and facilitate technological innovations.

Knowledge helps humans to solve specific physical, psychological, and social problems they encounter. They ask for it whenever they want to satisfy their biological, social, and intellectual needs, and they look for the appropriate means to achieve it. "Good" or "viable" knowledge helps humans achieve these ends (Von Glasersfeld, 1995, pp. 6–7).

Von Glasersfeld (1995, p. 8) stresses that viability, unlike truth, is relative to a specific context of goals and purposes. Since each individual lives in a different personal, physical, and social environment, knowledge is also relative, fluctuating, and context-dependent.

Thinking is humans' main adaptation tool, for it enables them to learn from their experiences. Constructivism focuses on the logical aspects of the learning process. What energizes the learning process is the agent's sensitivity to contradictions, his ability to detect logical inconsistencies, and his desire to be in a state of cognitive equilibrium.

Teaching should advance the logical capacities of the learners. The development of these capacities is due to the learners' growing ability to reflect upon his mental activities.

### Reflection and Equilibrium

The central place of reflective processes in the individual's ability to adapt herself to her environment is stressed especially by Piaget and also by Dewey (1933), to whom we return in Chap. 5.

As a developmental psychologist, Piaget (e.g., 1980) accepts Kant's epistemology with one essential modification. For him the mental schemes create a cognitive structure which develops in stages during the child's maturation process.

For Piaget, epistemology is "essentially a theory of adaptation of thoughts to reality" (Piaget, 1971 [PE], p. 24). The child's mental system is born containing several innate "action schemes", which enable him to make sense of his external world and act accordingly. This system develops into a rich structure of mental schemes, adapted to the agent's physical and social environment.

The mechanism of this mental system has logical properties. Piaget theorizes that the child's maturation process is divided into distinct stages. In each of them his logical capacity, that is, his ability to detect and deal with contradictions and counterexamples, becomes logically more sophisticated. This developmental process terminates when the child reaches the stage of "formal operations". It is only at this stage that his sensitivity to contradictions matures, leading to a stable equilibrium of the entire schemes' system. At this stage, the system can detect inconsistencies at the levels of the individual scheme, between two schemes, and in the system as a whole (Piaget, 1978).

The mental system as a whole is a structure. It is not a "mere collection of elements and their properties" (Piaget, 1971 [S], p. 5). The point is that structures are not machines. The elements of the structure depend on each other, influence each other, and there are certain laws which dictate the structure's overall behavior.

The basic mental operation that enables the development of the cognitive structure is called by Piaget "reflected abstraction". One of its manifestations "…includes the subject's awareness of what has been abstracted" (Von Glasersleld, 1995, p. 105). The reflected abstraction focuses on analyzing the logical-mathematical operations of the agent. It creates new structures and enables the constructions of new generalizations (Piaget, 1978).[3]

Piaget's theory has direct educational consequences for teaching children. First, it is worthless, even harmful, to teach the child something she cannot yet construct, so the teacher must know at which stage her learners are and plan suitable activities for it. Moreover, "if logic itself is created rather than being inborn, it follows that the first task of education is to form reasoning" (Piaget, 1972, p. 50).

Fosnot (1996) summarizes the main tenets of the educational-constructivist view. These tenets are: learning is development; disequilibrium facilitates learning; reflective abstraction is the driving force of learning; and dialogue within a community engenders further thinking (pp. 29–30; Fosnot & Perry, 2004, pp. 33–34).

The last point deals with a well-known criticism of Piaget (see Von Glasersfeld, 1995, p. 66). It has been argued that he ignores the role of society in learning. Piaget himself, on the contrary, emphasizes that "the active school… presupposes working in common, …since collective living has been shown to be essential to the full development of the personality in all its facets" (Piaget, 1972, pp. 108–109).

The central place of the community of learners is further elaborated in Vygotsky's "social constructivism" (1978), in "activity theory" (Engeström, 2001), and in Wegner's account of the "community of practice" (1998).

As we have seen, Hase and Kenyon claim that constructivism cannot justify heutagogy, because it endorses learning as a teacher-determined profession. They also reject the linear characteristics of this approach, which enable planning of the process (Hase & Kenyon, 2000). We would like to add other reasons for rejecting this widespread educational point of view. For most of the constructivists there is a close tie between learning and invention, but the prevalent interpretation of "invention" is in the context of cognitive or scientific inquiry.

But the very idea of a "scientific method" is questionable. As Feyerabend remarks, "the events, procedures and results that constitute the sciences have no common structure. … Successful research does not obey general standards" (1993, p. 1). If the very idea of a scientific method is groundless, modeling learning on one conception of "the" scientific research is misleading.

For us, the constructivist approach is also too narrow. "For constructivists… all knowledge [is meant] to be instrumental" (Von Glasersfeld, 1995, p. 177). There is no such thing as "knowledge for its own sake". And therefore, "students should be given the reasons why particular ways of acting and thinking are considered desirable" (Von Glasersfeld, 1995, p. 177).

[3] Piaget's account is problematic. Fodor, for example, argues that a stronger representational system cannot arise from a weaker one by means of general learning. His claim is that nothing new could be acquired during cognitive development, because such an acquisition presupposes the availability of the very concepts involved in the new acquisition, though it can be developed through biological maturation processes (Fodor, 1980, p. 148).

But what about the arts? What about the irrational side of the human being? What about the nomadic, free wandering of the mind, which is not necessarily utilitarian or instrumental, and does not always focus on a problem-solving activity?

The constructivist view of the essence of knowledge has far-reaching political implications. Viability is culture dependent. In our neo-liberal and neo-capitalistic society, a constructivist view might lead to a very narrow utilitarian account of what counts as "useful" knowledge. It tends to define material success as the only legitimate aim in life, making knowledge instrumental. It provides the means to achieve this narrow aim (Back, 2012, 2017).

Since viability depends on intersociety agreement, constructivism preserves the hegemonic societal structure and its power relationships. It leaves no room for non-conservative views (see Bowers, 2005; Tobias & Duffy, 2009). Furthermore, it structures the learning process to form a "normal" learner, whose autonomous self will have to wait until formal education is completed.

Feyerabend advances a similar argument against the reliance on the scientific method: "In a democracy …general education must under no condition bend the [students] minds so that they conform to the standards of one particular group [i.e., the scientists]" (1993, p. 161).

To sum up, heutagogy shares with constructivism the idea that knowledge is not simply a "material" poured into the student's passive mind. Knowledge is created by the individual. Learning is an emergent process, and constructivism stresses the active part of the learner in these processes.

Nevertheless, constructivism is incongruent with heutagogy. Not only does it emphasize the role of the teacher, who must "give reasons" in order to persuade the student to learn something, it also marginalizes the learners who want to know something for its own sake. Moreover, it focuses on the cognitive aspects of learning and on its logical features. Last but not least, it is quite conservative in its political orientation. It emphasizes "the" questionable scientific method and highlights the instrumental worth of knowledge and learning.

## *The Need for a New Epistemology*

For Hase and Kenyon, pedagogy is a teacher-centered process. It is based upon a mistaken epistemology (empiricism), leading to an invalid teaching–learning theory (e.g., behaviorism). In particular, it sees the learner as an empty bucket to be filled by a teacher.

For Hase and Kenyon (2000), Emery's ecological epistemology provides a candidate for replacing the empiricist paradigm. According to this epistemology, learning does not involve inferring concepts but extraction of relations. Although this paradigm develops different kinds of skills and gives more room to the learners' own experiences, it is still pedagogical in nature.

However, the later publications of Hase & Kenyon (e.g., 2013) ignore, as we've mentioned, Emery's suggestions and adopt the much more prevalent constructivist approach to teaching and learning.

But Hase and Kenyon later reject the constructivist stance as well, in spite of its being learner-centered, and, as we shall see, its influence on andragogy. Constructivism is a planned, linear process that requires a teacher-determined learning approach; hence it cannot provide heutagogy with a philosophical defense.

Consequently, heutagogy cannot be justified by any of the epistemologies discussed thus far. We must look for another epistemological basis upon which heutagogy can be founded. To this end, we shall devote Chap. 6.

We conclude this section with a few questions for our readers further journey.

Is it possible that there is "correct" or "valid" epistemology? Perhaps we know different things in different ways? Or learn different things in different ways?

Is it possible that the very idea of "method" is mistaken, leading to coercive systems of education? Should heutagogy be characterized by its being "against method" without rendering this approach just another method?

In the preceding sections we have seen that epistemology is closely tied to politics. Bacon (1597) observed that "knowledge is power", and since Foucault (1980), we have been used to questioning the power/knowledge relationship. The main concern is that we educate the individual to become the "entrepreneur of himself" (Foucault, 2008, p. 226), who feels free although his actions are determined by external forces (cf., Lazzarato, 2012, p. 31; Back 2017, p. 111).

What should heutagogy assume about the knowledge/power relationship and its significance for human freedom?

We believe that if a hegemonic epistemology does not presuppose a humanistic stance, it cannot be self-determined, for it might lead to the subjugation of the self to exterior forces. This is where Rogers' humanistic worldview enters the scene, because for him, "the individual has within himself vast resources for self-understanding, for altering his self-concept, his attitudes, and his self-directed behaviour" (Rogers, 1977 p. 6).

## Carl Rogers, Existential-Phenomenology, and the Learner-Centered Humanistic Approach

I lost interest in being a teacher (Rogers, 1958, p. 4; 1969, p. 153).

Students do have curiosity if it isn't quelled. And they do want to learn things, but not necessarily that the teacher wants to teach (Rogers, in: Ali, 2012, p. 28).

I am going to experiment with putting trust in students, in class groups, to choose their own directions and to evaluate their progress in terms of their own choosing (Rogers, 1980, p. 38).

For Hase and Kenyon, the theory of Carl Rogers, a distinguished American humanistic psychotherapist, provides another important source of inspiration (Hase, 2016).

They remark that "Rogers (1951) …suggests that learning is natural 'like breathing' and that it is an internal process controlled by the learner" (Hase & Kenyon, 2000). [We couldn't locate this citation in Rogers (1951)].

Our own notion of heutagogy is also strongly influenced by Rogers, so let us present his theory, focusing on what will be relevant to our account. In his publications,[4] Rogers lays out his ideas concerning education, the teacher–learner relationships, the teaching–learning processes, and the political significance of his views.

Rogers famously declares that "the outcomes of teaching are either unimportant or hurtful" (Rogers, 1958, p. 4, 1969, p. 153). In his publications he aims to justify and explain this statement, because, as he himself realizes, it is counterintuitive and makes him wonder "how ridiculous these thoughts, which have much value to me, would seem to most people" (1958, p. 4, 1969 p. 151). Indeed, his ideas raised furious objections from eminent education scholars, like Peters (1970), who endorse the empiricist paradigm.

Hase and Kenyon (2000) label Rogers' theory as "phenomenology", and Rogers identifies himself as belonging to the "phenomenological-existential self-theory" stream in psychology (Rogers, 1964, p. 109)—the other two streams being Behaviorism and Freudianism.

According to Rogers, for the behaviorists, man is a machine. For Freud man is an irrational being, caught "in the grip of unconscious motive" (Rogers, 1964, p. 129). For both, man "has long felt himself to be but a puppet in life—molded by economic forces, by unconscious forces, by environmental forces" (Rogers, 1964, p. 130). From the phenomenological-existential perspective, man "is a person in the process of creating himself, a person who creates meaning in life, a person who embodies dimension of subjective freedom…" (Rogers, 1964, p. 129). We accept this view wholeheartedly.

The phenomenological-existential approach in psychology is based on two philosophical schools: phenomenology and existentialism. We present each below.

## *Phenomenology*

Phenomenology is "the study of structures of consciousness as experienced from the first-person point of view" (Smith, 2016). Phenomenology, whose roots can be traced to Kant, was founded by the philosopher Edmund Husserl. Reality, for Husserl, lies not in the event but rather in the individual's perception of that event. Central to his philosophy is the method of *epoché*: turning attention to the conscious experience, while putting in brackets the question of its relation to reality.

[4]Rogers devotes to education the chapter entitled "Student-centered teaching" in his "*Client centered Therapy*" (1951), the paper "Personal Thoughts on Teaching and Learning" (1958 [a lecture delivered in 1952; reprinted in 1969, p. 150–155]), and the books *Freedom to Learn* (1969) and *Freedom to Learn for the 80th* (1983).

The development of specific methods for studying human experience is one of the primary contributions of phenomenology as a method of inquiry of human's consciousness activities (cf., Valle, King, & Halling, 1989, p. 6). Rogers does not refer to Husserl, but he is acquainted with the studies of Snygg and Combs, two psychologists "who show considerable awareness of Husserl and the *epoché*" (Ashworth, 2006, p. 35).

Snygg and Combs believe that psychology "…attempts to understand the behavior of the individual in terms of how things 'seem' to him…" (Combs & Snygg, 1959, p. 16). They hypothesize that "…all behavior, without exception, is completely determined by and pertinent to the phenomenal field of the behaving organism" (Snygg & Combs, 1949, p. 15; the term "phenomenal" was changed to "perceptual" in Combs & Snygg, 1959, p. 20).

As early as 1947, Rogers maintains that "as changes occur in the perception of the self and in the perception of reality, changes occur in behavior" (Rogers, 1947, p. 359). As an example, Rogers tells the story of Victor Frankl, himself an existential psychiatrist and a holocaust survivor, who tells us that in Auschwitz everything was taken from the prisoners. But years in such an environment showed only "that everything can be taken from a man but one thing: to choose one's own attitude in any given set of circumstances, to choose one's own way" (Frankl, 1959, p. 65). Rogers comments that: "It is this inner, subjective, existential freedom that I have observed. It is the realization that 'I can live myself, here and now, by my own choice'" (Rogers, 1969, pp. 268–269, 1983, 276).

The main change in the perception of the self, according to the phenomenological-existential approach, occurs when the self "…is *choosing* himself, endeavoring… to *become* himself" (Rogers, 1964, p. 130; emphasis in the original).

## *Existentialism: Becoming and Dialogue*

Martin Buber, a famous existential philosopher, whose ideas are appreciated by Rogers (1969, p. 232; 1980, p. 19), used to tell the following Hasidic story: "Before his death, Rabbi Zusya said: In the coming world, they will not ask me: Why were you not Moses? They will ask me: Why were you not Zusya?" (Buber, 1956, I, p. 251). This story could have been told by Rogers as well, and also by the Danish existential philosopher Sørn Kierkegaard, whose statement, "An existing individual is constantly in process of becoming" ([1846] 1941, p. 79) is cited by Rogers with approval (1961, p. 172).

Related to this statement is Kierkegaard's notion of "choosing himself", an essential notion for Rogers, who notes that Kierkegaard expressed it already in 1849. Kierkegaard believed that philosophy should deal with the concrete existence of the individual. It must clarify the fundamental issues with which the human being struggles, such as the feeling of despair.

Rogers comments that "…Kierkegaard… points out that the most common despair is to be in despair at not choosing, or willing, to be oneself; but that the deepest form

of despair is to choose 'to be another than himself'". On the other hand, "to will to be that self which one truly is, is indeed the opposite of despair", and this choice is "the deepest responsibility of man" (Rogers, 1961, p. 110; commenting on Kierkegaard [1849] 1941, p. 29).

For Kierkegaard, to choose oneself means, in Stack's words, "to choose oneself as responsible for what one has been and to take up responsibility for one's life" (Stack, 1973, p. 110). Kierkegaard, as a keen Protestant, claims that "'being oneself' means to be 'aware in the deepest sense that there is a God'" ([1849] 1941 p. 40). In other words, *becoming* is an inward journey to discover the God within oneself. For the secular Rogers, *becoming* means a personality change: the individual "*experiences* himself, in all the richness that exists within himself" (Rogers, 1961, p. 113).

The experience of becoming oneself happens when the individual is able to get rid of the masks that cover his "real" self: "He experiences the various elements of himself which have been hidden within. …He becomes himself—not a façade of conformity to others, not a cynical denial of all feelings, nor a front of intellectual rationality, but a living, breathing, feeling, fluctuating process—in short, he becomes a person" (Rogers, 1961 pp. 113–114).

This person moves away from what he "ought" to be (Rogers, 1961, p. 167), from meeting cultural expectations (Rogers, 1961, p. 169), and from pleasing others (Rogers, 1961, p. 169), toward self-direction (Rogers, 1961, p. 170) or autonomy, "…ready to be in a process of becoming, to change to" (Rogers, 1961, p. 171).

For Rogers, becoming a person means that his personality has developed the following characteristics: openness; desire for authenticity; skepticism regarding science and technology; desire for wholeness; a wish for intimacy; being a process person; caring; [having] attitude toward nature; anti-institutional; [having] the authority within; [recognizing] the unimportance of material things; [and having] a yearning for the spiritual (see Rogers, 1980, pp. 350–351).

Such a person is a human being who is able to maintain "I-Thou" relationships with the "other". The contrast between I-Thou and I-It is the cornerstone of the philosophy of Buber. According to Buber, an I-Thou relationship is realized when man is able to "make the other present" (Buber, 1965, p. 70; 1968, pp. 96–97), "[which] means to imagine quite concretely what another man is wishing, feeling, perceiving, and thinking" (Friedman, 1967, p. 174). When this "making present" is reciprocal, it creates the sphere of "the between" (Buber, 1965, pp. 72–75).

According to Buber, the I-Thou relationship is characterized in terms of being. The individual cannot "become what only he can become without developing I-Thou relationships with others" (see Friedman, 1955, p. 198). Self-fulfillment can be attained only through genuine I-Thou dialogical relationships with other human beings (and for Buber also with God, the absolute Thou to which humans have to be responsive).

Rogers wholeheartedly agrees. He cites Buber's view on "confirming the other… as a living person" (Rogers, 1961, pp. 55–56), and reflects on the moments in the therapeutic session in which he and his client "emerge from a well or tunnel… a timeless living in the experience which is *between* the client and me" (Rogers, 1961,

p. 202; cf. 1969, p. 232). In Chap. 6 we shall return to this gracious, mysterious moment, when we address Serres' notion of the "third".

In a public dialogue between Buber and Rogers (held in April 1957), Rogers says to Buber that "in such a [in between] relationship I feel a real willingness for this other person to be what he is. … Without losing my own personhood or separateness in that" (Rogers in: Anderson & Cissna, 1997, pp. 30–31).

This amounts to the state of empathy, or being empathic, which is for Rogers "to perceive the internal frame of reference of another with accuracy and with the emotional components and meanings …but without ever losing the 'as if' condition" (Rogers 1980, p. 140).

Now, "If my client… is able to sense something of those attitudes in me, then …there is a real experiential meeting of persons, in which each of us is changed" (Rogers in: Anderson & Cissna, 1997, pp. 30–31). An underlying condition for this state, beside acceptance and empathy, is called by Rogers congruence, meaning a close matching between what is "…present in awareness and what is expressed" (Rogers, 1977, p. 9).

This is similar to Buber, for whom a dialogue involving "seeing through the eyes of the other" and mutual responsibility are the basis for one's ethical decisions (see Friedman, 1967, p. 175). However, there is a difference, which is highly important for our context, between Rogers and Buber (Anderson & Cissna, 1997, 30–31).

For Buber, in a professional setting such as a client–therapist meeting or, for our purposes, in student–teacher relationships, there is a principled gap between the individuals involved in the relationship. Buber believes that such relationships cannot be reciprocal. Rogers claims that there are moments in which they can be, and that in these moments "both of us are changed in that kind of an experience" (Rogers in: Anderson & Cissna, 1997, 31). Moreover, it is a sign of a genuine dialogue, when the participants are ready to change themselves while engaged in it.

## *Learning to Learn*

According to Rogers, his learner-centered approach transforms the aims of teaching. It is no longer about transmitting knowledge but rather about learning how to learn. He cites Martin Heidegger, who states that "Teaching is more difficult than learning… because what teaching calls for is this: to let learn. The real teacher, in fact, lets nothing else be learned than—learning" (Heidegger, 1968, p. 15 [lecture delivered in 1951]; cited in Rogers, 1983, p. 18).

Interpreting Plato's idea of *paidea* [education], Heidegger says that Plato wants to show that the essence of *paidea* does not consist in merely pouring knowledge into the soul. But, on the contrary, genuine education "takes hold of our very soul and transforms it in its entirety by first of all leading us to the place of our essential being and accustoming us to it" (1998, p. 164). Heidegger speaks here as an existentialist and compares the notion of *paidea* with that of the German *Bildung*.

### *Bildung*

The notion of *Bildung* merits a brief digression because of its important bearing on our discussion. *Bildung* concerns human's "inner improvement and elevations" as he "seeks to grasp as much world as possible and bind it as tightly as he can to himself" (von Humboldt, 1793 [2000], pp. 58–59). The human being has to "reflect back into his inner being the clarifying light and the comforting warmth of everything that he undertakes outside himself…" (von Humboldt, 1793 [2000], p. 59).

This process does not occur in a vacuum, but always within a given culture. The individual, guided in his journey by a certain inner picture (*Bild*), tries to attain his self-fulfillment through his encounters with his cultural heritage. In the *Bildung* process, the universal concept of humanity must be uncovered and given a personal interpretation. For this to happen, the learner has to undergo as many different life experiences as possible, to recognize the cultural heritage of the society he is born into and be acquainted with its knowledge as it is manifested in the arts and sciences.

*Bildung* is a holistic process, based on the individual's experiences and reflections upon them. Experiences contain what happens to others, real or imaginative, including historical or artistic happenings, and heroes with whom the individual can identify. Humboldt emphasizes that "within him are several faculties to represent one and the same object to himself in various guises: now as a concept of reason, now as an image of the imagination, now as an intuition of the senses. Using all of these… he must try to grasp Nature, not so much in order to become acquainted with it from all sides, but rather… to strengthen his own innate power… his own *self-determination*" (von Humboldt, 1793 [2000], p. 59; our emphasis).

*Bildung* is, therefore, a never-ending process. It is a life-long learning endeavor, and it does not have any external aim. "The result of *Bildung* is not achieved in the manner of a technical construction but grows out of the inner process of formation and cultivation and therefore remains in a constant state of further continued *Bildung*" (Gadamer, 1960 [1989], p. 12).

According to Gadamer, the general characteristic of *Bildung* is to keep oneself open to more universal points of view. It requires the agent "to distance oneself from oneself and from one's private purposes means to look at these in the way that others see them" (1960 [1989], p. 17). As Gadamer emphasizes, it involves cultivating a universal sense, and not the universality of concepts (p. 18).

*Bildung* denotes a process of personal formation. However, it is possible, and to some extent even mandatory, for the *Bildung* process to have a mentor (cf., Bruford, 1975, pp. 50–57; Armstrong, 2006, pp. 273–274), whose main function is to facilitate the learning process. Similarly, for Rogers, the teacher becomes "the facilitator of becoming" (Rogers, 1977, p. 91). In an era of rapid changes, "the goal of education, if we are to survive, is the *facilitation of change and learning*… Changingness, a reliance on *process*" (Rogers, 1983, p. 120). This suggests a new definition of learning.

## *Meaningful Learning*

For Rogers "significant, meaningful, experiential learning" (Rogers, 1969, p. 4; 1983, p. 19) has a quality of personal involvement in which the whole person, both his feeling and cognitive aspects, is *in* the learning event. It is *self*-initiated, in that "the sense of discovery, of reaching out, of grasping and comprehending, comes from within" (Rogers, 1969, p. 5; 1983, p. 20). It is *pervasive*, because it "makes a difference in the behavior, the attitudes, perhaps even the personality of the learner" (ibid). It is evaluated by the learner, because "he knows whether it is meeting his need, whether it leads toward what he *wants* to know. And …*its essence is meaning*. When such learning takes place, the element of meaning to the learner is built into the whole experience" (ibid; original italics).

This characterization is controversial, to say the least. In our neo-capitalist era, the term *deep learning* is much more prevalent than the term *meaningful learning*. Deep learning is defined as the process through which an individual becomes capable of taking what was learned in one situation and applying it to new situations (e.g., Pellegrino and Hilton, 2012; Guerriero, 2017). The product of deeper learning is transferable knowledge, including content knowledge in a domain and knowledge of how, why, and when to apply this knowledge to answer questions and solve problems.

Rogers' definition of meaningful learning is very different from this instrumental account. For him, as we have seen, meaningful learning is a subjective process in which the learner decides what is meaningful for her to learn. Thus the "material" has personal meaning for the "whole" learner, involving his or her feelings, disposition, and attitude; it is learning occurring not only "from the neck down up (Rogers, 1969, p. 4).

Rogers' characterization of meaningful learning can be used to define heutagogy. Hase and Kenyon (2000) cite the five key hypotheses of Rogers' student-centered teaching approach: We can only facilitate learning; meaningful learning is connected to the "self"; such meaningful learning raises inner resistance so that "the current organisation of self is relaxed and expanded to include it" (ibid). Finally, "the educational system which most effectively promotes significant learning is one in which threat to the self, as learner, is reduced to a minimum[5]" (Hase and Kenyon, 2000; cited from Rogers, 1951, Kindle locations 6527–6528).

According to Rogers (1951), a teaching approach that implements the above hypotheses consists of the following: creation of an acceptant climate (6537); the development of individual and group purposes (6623); the changing role of the leader (6652); [a different] process of learning in a student-centered class (8721); self-evaluation (6953).

These characterizations emphasize what Rogers sees as the centre of his approach: the place of the group in the learning process, especially regarding the learner himself: "Actually, I feel that the best help a conventional teacher could get would be to engage

[5]Hase & Kenyon omit Rogers second condition that "differentiated perception of the field of experience is facilitated".

in an encounter group, in a workshop …where they would begin to realize, 'Oh, it is better to listen and hear what divergent opinions there are than to be so sure of what is the truth'" (Rogers in: Ali, 2012, p. 30).

### *Politics and Democracy*

In a 1983 book, Rogers devotes an entire chapter to the "Politics of education" (pp. 185–194). He is aware that his client-centered theory poses challenges to the current political regime because of the shift of power and control to the student (see also Rogers, 1977). Clearly, to allow more freedom in a democratic climate is threatening to administrators and teachers, who lose their power, but also to students, who might be afraid of the insecurity it entails and the work it implies.

However, for Rogers the ultimate goal of education is to enhance the process of becoming a person in and for democracy. As he puts it:

> The goal of democratic education is to assist students to become individuals, who are: able to take self-initiated action and to be responsible for those actions, capable of intelligent choice and self-direction, critical learners, able to evaluate the contributions made by others.
>
> [To these ends, the individuals],
>
> …have acquired knowledge relevant to the solution of problems; are able to adapt flexibly and intelligently to new problem situations. They internalized an adaptive mode of approach to problems, utilizing all pertinent experience freely and creatively; able to cooperate effectively with others in these various activities. Evidently, they work, not for the approval of others, but in terms of their own socialized purposes (Rogers, 1951, 6464–6466).

## Conclusion

Rogers' humanistic approach can provide heutagogy with a viable justification. Its existential presuppositions support heutagogy's insistence on the learner's self-determination as a means to enable his self-fulfillment. It stresses the essential role of the "other" as "thou" and of the group as facilitating this endeavor. His phenomenological stance emphasizes the primacy of the learner's perception of the learning process.

This is not as easy as it sounds. As Rogers points out, "the students who have been clamouring for freedom are definitely frightened when they realize that it also means responsibility. There is also a healthy scepticism as to the reality of the change. Won't the teacher still dominate through grades and exams? Isn't this a pseudo freedom? [But] As they become convinced that it is real, a new spirit is released" (Rogers, 1977, p. 75).

However, one caveat should be acknowledged. If influenced by Rogers, heutagogy cannot be instrumental. It cannot be just another method of teaching that helps the

teacher to overcome the malaises of traditional teaching with a more sophisticated tool to motivate learning. If the enhancement of the autonomous self is not the main aim of the educational process, it loses its justification (see Back, 2012). Thus, heutagogy is not a more efficient method to teach mathematics or literature (though it can be). From a humanistic point of view, heutagogy can be justified only if it supports the process of *Bildung*.

According to Back (2012), there are three rival educational perspectives:

1. Teaching can be regarded as a profession, and the teacher, as an enlightenment individual, is an expert practitioner, whose main aim is that the pupils will be knowledgeable.
2. Teaching can be regarded as an art, and the teacher, being a romantic individual, is an authentic creator who loves his pupils and enhances his pupils' ability to self-fulfill themselves.
3. Teaching can be regarded as a mission, and the teacher, as a devoted believer whose obligation is to ascertain that the new generation will share his faith (Back, 2012, p. 20). (Although this perspective is clearly not heutagogy in character, nevertheless it is possible to find heutagogy elements even within it [see Chap. 7]).

The three epistemologies, discussed in the first part of this chapter, belong to the enlightenment perspective. Rogers' humanistic account belongs to the romantic one. These two perspectives can lead to opposing ways of teaching and learning. While the first emphasizes the student's knowledge, the second focuses on his sense of being. This is, of course, not an either/or dichotomy, but a question of the relative importance of these two ingredients in the educational process. It is a question of aims and values. Heutagogy cannot prescribe a firm decision about the superiority of one of these poles. But we believe that it mustn't ignore any of them.

In Chap. 6 we will put forward an educational theory that attempts to address them in one unified account. But in the meantime, let us consider heutagogy's psychological, sociological, and pedagogical roots.

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# Chapter 3
# Connectivism: Networks, Knowledge, and Learning




**Abstract** Connectivism is a new paradigm of learning adapted to the networked world we live in. In this chapter we explore this paradigm as developed by Siemens and Downes and critically discuss its essence of knowledge and learning.

## Images of Thought

Each era is dominated by a leading image which helps us understand ourselves and the physical and social world we live in (Deleuze 1994, pp. 129–167), (Deleuze and Guattari 1994, pp. 37–66). This image "…best articulates what, for a given group, encompasses the aims, methods, structure, and motivations for thinking" (Vitale, 2014 p. 121). To think differently is to be non-sensical, unreasonable, or unintelligible.

In the past, there were various images of thought. For example, in ancient Greece the hegemonic image was that the world is a huge organism (e.g., Aristotle), while in sixteenth to seventeenth century Europe the world was conceived as a huge machine (e.g., Descartes or the British empiricists). Each image influences the way education is perceived. As seen in Chap. 2, the empiricists' image leads to mechanical theories of learning and highlights the role of the teacher as an external to the learner force, determining the students' learning process and outcomes.

Today, the hegemonic image of thought is that the world is a network. A network is a collection of nodes connected by links (Serres, 1968 [1964], p. 11). Nodes refer to entities (e.g., people, neurons, places, websites, etc.) and links refer to the connections between them (e.g., social relationships, synapses, roads, hyperlinks, etc.) (cf., Mitchell, 2009, p. 234).

Especially since the spread of the internet, it has been quite common to see networks everywhere, and it is an accepted truth that "the imagery of the network pervades modern culture" (Newman, Barbasi, Watts, 2006, p. 1). In fact, the network image is quite old. In his dissertation, Serres (1968) attributes it to German philosopher Gottfried Wilhelm Leibniz (1646–1716).

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## The Core Idea

One of the manifestations of the network image of the world is the theory of knowledge and learning called connectivism. Theorized by Siemens (2004, 2006, 2008) and Downes (2006, 2012, 2017), connectivism attempts to answer the need for a new paradigm adapted to the networked world we live in (Davidson & Glassner, 2016). Summarizing the research, Foroughi notes that such a paradigm must take into account several realities of learning and knowledge acquisition in the digital age:

> The fluidity of knowledge; The world's knowledge has doubled in the past decade; Open sources of information are now made available on the Internet by universities and research facilities; Today's students can expect to change jobs or even professions many times during their lifetimes—thus the importance of lifelong learning; Formal education now represents only a fraction of the learning as informal learning occurs throughout the day. Especially, cognitive information processing, can now be performed by and/or supported by computer technology; Skills like knowing how to do something or the possession of factual knowledge are diminishing in importance in comparison to expertise in finding needed knowledge… (see Foroughi, 2015, pp. 13–14).

Hence, Foroughi proposes that connectivism provides the required new paradigm of learning. We embrace the general idea that this theory suggests, but reject its underlying reductionist philosophy, which regards notions such as meaning as being merely epiphenomena[1] of brain activities (Downes, 2012, p. 87).

Connectivism integrates important properties of networks, such as chaos, complexity, and self-organization. It also draws on recent work in artificial intelligence (especially connectionism and deep learning) and neuroscience (Downes, 2017, p. 600[2]). Thus, for example, neuroscience research reveals that "learning is incremental, experienced based, multi-sensory, that brain mechanisms involved in learning 'extract' structure from experience…, that learning is social… and that 'it is never too late to learn'" (Cigman & Davis, 2009, p. 3; summarizing Goswami, 2009).

Connectivism posits that knowledge is "composed of connections and networked entities …The concept of emergent, connected, and adaptive knowledge provides the epistemological framework for connectivism as a learning theory" (Siemens, 2008, p. 10). Knowledge is distributed across networks and the act of learning is largely one of forming a diverse network of connections and recognizing attendant patterns (Siemens, 2008, p. 10).

Downes elaborates on this view in two comprehensive books entitled *Connectivism and connective knowledge* (2012) and *Toward personal learning* (2017). He states that knowledge is distributed across information networks and can be stored in a variety of digital formats. "…Learning is the *formation of connections* in a network. The learning theory, therefore, in the first instance, explains how connections are formed in a network" (Downes, 2017, p. 287).

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[1] "Epiphenomenalism is a position according to which mental states or events are caused by physical states or events in the brain but do not themselves cause anything" (Walter, 2018).

[2] See also Hase 2013: https://heutagogycop.wordpress.com/2013/03/31/providing-a-compass-neuroscience-heutagogy/.

Connectivism's basic intuition is that "…a person's knowledge is the state of connectivity in their mind—the connections between their neurons—and to learn is to form or reshape these connections by strengthening or weakening them through interaction and use" (Downes, 2017; pp. 231–2). As Downes insists, connectivism is "a theory where we grow knowledge, rather than acquiring it, where we learn by immersion in a field of study rather than by being told about it".

Siemens (2004, p. 5) formulizes eight principles of connectivism, which emphasize the abilities to connect nodes of information, to maintain and update them. As he emphasizes, "Decision-making is itself a learning process [in a] shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision".

Knowledge does not simply exist inside a learner—it exists in the wider community or network as well. Learning can occur in any network, not merely in the individual. Learning is constantly changing, constantly shifting, and as Siemens says, "the connections that enable us to learn more are more important than our current state of knowing" (Siemens 2006, p. 30).

Downes acknowledges that the connectivistic definition of learning runs against all the prevalent learning theories. For the behaviorist, "learning is the creation of a habitual response in particular circumstances or to acquire a disposition". In instructivism, "learning is the successful *transfer of knowledge* from one person (typically a teacher) to another person (typically a student) [as it is in the traditional paradigm, discussed in Chap. 2]". The third option, constructivism posits that "learning is the creation and application of *mental models or representations* of the world" (Downes, 2017, p. 287; cf. Simmens, 2006, p. 63). But all these theories are deficient.

Especially, Downes explains that though constructivism emphasizes the ties and collaboration between learners in a group or community jointly constructing common knowledge, connectivism places greater emphasis on learning as an individual, multi-channeled, multi-level process, and views the individual as the creator of content who simultaneously forms ties with individuals, groups, or digital tools at his discretion and according to his needs.

Downes emphasizes that for the connectivist, "a person learning is a self-managed and autonomous seeker of opportunities to create, interact and have new experiences, where learning is …the development of a richer and richer neural tapestry" (Downes, 2017, p. 290).

Hence, "knowledge is itself a set of connections in network, a pattern of connectivity". This means that "…learning needs to be active, it needs to be network-based, and it needs to be constituted essentially of interactions between networks of users" (Downes, 2017, p. 600).

Thus, "'to know' is to be or to instantiate a network of connections in the brain, in society, or wherever you can find a network". And hence "to learn is to create, to grow, to weaken, and to traverse those connections" (Downes, 2017, p. 742).

Connectivism posits that content is constantly changing, and learning is typified by rapid changes and constant updating, and consequently it is important

for learning to include development of the life competencies of "lifelong learners". These competencies include knowing where to look and how to save relevant information (critical thinking), the ability to create new content by means of up-to-date content on the network (creative thinking), maintaining diverse social ties (socio-emotional competencies), drawing conclusions, making decisions, and staying regularly updated.

Similarly, for Davidson and Glassner (2016), the distributed nature of learning expands social constructivist pedagogy and adapts it to the internet age. It emphasizes the importance of the learner's reflective and metathinking skills.

The process of learning itself is "based on recognizing and interpreting patterns", while "the learning process is influenced by the diversity of the network, strength of the ties". Memory consists of "adaptive patterns of connectivity representative of current state", and transfer occurs "through a process of connecting" (Downes, 2012, p. 92).

Downes defines four characteristics of the connectivist learning process: diversity, autonomy, interactivity, and openness. Diversity involves the widest possible spectrum of points of view. Autonomy means that the individual knowers contribute to the interaction of their own accord, according to their own knowledge, values, and decisions. Interactivity (or connectivity) means that the knowledge is a product of an interaction between people. Openness means that there is a mechanism that allows a given perspective to be heard and interacted with by others (Downes, 2017, p. 71).

Nevertheless, we do think that there are cases of learning which are composed of mechanisms of "remembering" or storing facts, or that there are cases in which learning is produced through some set of pedagogical, behavioral, or cognitive processes.

Gerstein suggests that all of these principles of learning lead to a new concept of education which she calls 3.0. [Heutagogy]. For her, the learners in a heutagogical, connectivist learning environment determine what they want to learn; use their learning preferences and technologies to decide how to learn; create their own learning communities; utilize the expertise of educators and other members of their learning communities; demonstrate their learning through methods and means that work best for them, and take seek for feedback (Gerstein, 2014, p. 92).

## Caveats

While we share with Siemens (2006) and Downes (2012, 2017) many of their assumptions, there is a major difference between our notion of learning and their account. The basic disagreement is that for us learning cannot be understood as being only an associative process on the level of brain neurons. Learning cannot be explained by a purely physical/neurological mechanism because such mechanism cannot explain the semantic and logical aspects of the linking processes (Fodor & Pylyshyn, 2015). Formal education, after all, is also about meanings and relevance, and these cannot be conceived as mere epiphenomena of physical/chemical relations.

Here we take side in an old debate in the philosophy of mind. Downes' view belongs to the eliminativist camp. As he stresses, "…in connectivism, a phrase like 'constructing meaning' makes no sense". This is because "connections form naturally, through a process of association, and are not 'constructed' through some sort of intentional action" (Downes, 2012, p. 85).

Similarly, according to Downes, "'meaning' is a property of language and logic, connoting referential and representational properties of physical symbol systems" (ibid). His main point here is that such symbol systems are "epiphenomena of (some) networks, and not descriptive of or essential to these networks" (Downes, 2012, p. 85).

In distinction to previous theories of learning, "the sort of connections… are between entities (or, more formally, 'nodes'). They are not (for example) conceptual connections in a concept map. A connection is not a logical relation" (Downes, 2017, p. 287).

But maybe some of them are?

The relevance of this debate is revealed when we look closer at its implications to teaching and learning. According to Downes, "…This implies a pedagogy that (a) seeks to describe 'successful' networks (as identified by their properties" (i.e., diversity, autonomy, openness, and connectivity), and "(b) seeks to describe the practices that lead to such networks, both in the individual and in society" (i.e., "modelling and demonstration (on the part of a teacher, and practice and reflection on the part of a learner))" (Downes, 2012, p. 85).

This suggested pedagogy is far from being "the" pedagogy of the twenty-first century. It is barely suitable to the nineteenth century. Teaching, especially in the academia, is much more than simple "modelling and demonstration". Such an activity calls for a passive student, very different from the self-directed "accomplished and motivated learners in their own right" which is aimed by Downes himself (Downes, 2017, p. 287).

This incongruence arises because it is futile to explain human learning processes in terms of neuronal activities, exactly as it is meaningless to explain neuronal activities in terms of quantum mechanics (cf., Fodor & Pylyshyn, 2015). There are different levels of phenomena which call for different explanatory principles. The syntax of a given language is irreducible to the biological laws that generate the utterance of a sentence, and to say that the table is black is irreducible to describing the molecular construct of the same table without losing the meaning of what has been said. And as any educator knows, the best way to explain his students' behavior is by using belief-desire psychology and not by reducing it to the neural level (Fodor, 1975).

It is impossible to explain the logical relation of "inferring" with an associative mechanism, because logical laws are irreducible to any law of association. Similarly, at least at the level of formal learning settings, and unlike Downes (2012, p. 16), at least part of our knowledge is best explained as composed of propositions and representations.

However, the problem with connectionism goes much deeper. Searle's famous Chinese Room thought experiment suggests that machines can mimic the mind, although we would not ascribe to them the intentional thought (Searle, 1980). Behavior is not the only criterion for deciding whether something really "thinks", as can

be attested by any teacher whose students can answer a question correctly without the underlying understanding of what is going on.

As Fodor insists, the connectionists (and the connectivists fare no better) label the nodes in their networks, and that label is supposed to specify the content that the activation of the node expresses. But this account is problematic because "on the one hand, only the node *labels* in 'neural networks' have semantic content, and on the other, the node labels play no role in the mental processes" (Fodor, 2008, p. 7).

Thus, the connectionists are unable to acknowledge the "productivity, systematicity, and compositionality of thought (to say nothing of the role of logical form in the processes of inference)" (Fodor, 2008, p. 7). (The last characteristics of thought are not even mentioned in Downes, 2017.) In sum, we fully agree with Fodor, who observes that the reduction of psychology to neurology could probably be purchased only at the expense of its explanatory power (Fodor, 1980, p. 148).

Take, for example, Downes' description: "A person says the word 'Paris' to me; the sound of this word stimulates a part of my neural net, initially, that part associated with the word 'Paris' but ultimately, that part associated with a variety of other concepts ('City', 'France', etc.) all of which are composed (partially) of the same connections" (Downes, 2017, p. 224). It is clear that at the level of understanding academic learning, the meaning of the word is not explainable by the electrochemical activities of the brain but by the possible sentences in which the word can appear and the possible syntactic roles it can have. It is possible to see those characteristics as net dependent, but they impose certain constraints on the links which cannot be explained as simply following associative rules.

We face, here, the opposite position to the one we encounter in Chap. 2 and will encounter in Chap. 6. While there we noticed that logical and semantic relations are not the only possible links in our net of knowledge, here we claim that they do have an essential place in some nets, which cannot be reduced to mere associative links.

We want to stay in the common explanatory level of mental representations such as beliefs and desires, because it best explains our behavior, enables predictions about our actions, and captures our intuitions about the learning process. Thus, we agree that learning is making connections in a networked world, and we embrace the properties of diversity, autonomy, interactivity, and openness, but we take them to apply to the level of our logical and mental realm. After all, Downes' books themselves are written at this level and ask the reader to understand his arguments and see them as consistent and sound.

And a final caveat. Brennan (2013) observes that:

"Not everyone knows how to be a node. Not everyone is comfortable with the type of chaos Connectivism asserts. Not everyone is a part of the network. Not everyone is a self-directed learner with advanced metacognition…"

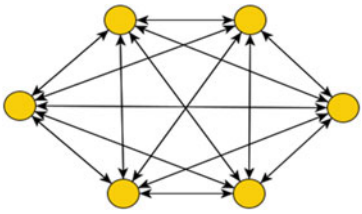
This post sheds a skeptical light on heutagogy. If it is valid, heutagogy is in danger of being irrelevant to many learners (and their teachers). In what follows, we will have to take this possibility into account.

# Appendix: Network Topologies

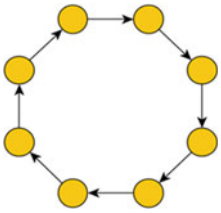
To prepare the discussion in Chap. 6 and onward, we add the notion of "network topology", which refers to the layout of a given network. There are various types of networks, and they affect the learning processes in different ways. As we shall see in Part II, all of them can be found in the students' learning processes, although some of them suit heutagogy better.

**Fig. 3.1** The network topologies

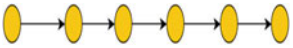
The *Mesh* type network



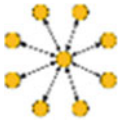
The *Ring* type network



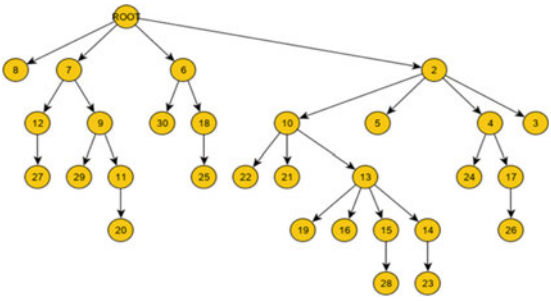
The *Bus* type network



The *Star* Network



The *tree* type Network



The common network topologies are: the fully connected *mesh* in which every node in the network has a link to every other node; the *star* in which all nodes are linked to a central node, usually called a hub; the *bus*, in which a central path links all the nodes in a network; the *ring* in which all the nodes are linked in a closed loop; and the *tree* in which only one path exists between any two nodes of the network. Such a network resembles a tree in which all branches spring from one trunk (see Fig. 3.1). There are also mixed network topologies, for example a group of star networks which are connected to a different node in a linear bus structure (cf., Singh & Ramoula, 2016).

Each of the network topologies has a distinct influence on the learning process. For example, if the world of knowledge is conceived as a tree network, learning is like climbing this tree. It begins with the acquisition of some basic skills and knowledge (the roots), and proceeds, as in the pedagogical paradigm discussed in Chap. 2, in a linear path, to a more complicated, domain-specific subject-matters (branches).

If, on the other hand, the world is a mesh network, learning is wandering in a fluctuating web (Serres, 1997, p. 8). It consists of discovering its nodes and mapping their ever-changing links (see Chap. 6). Of special importance, for our concerns, are the tree, the mesh, and the star networks which, as we shall see in Chap. 6, have important logical, epistemological, ontological, ethical, and educational aspects.

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# Chapter 4
# Psychological and Sociological Aspects of Heutagogy




**Abstract** In this chapter we address heutagogy's psychological and sociological aspects. We first present the self-determination theory (SDT), which postulates three basic human needs as the driving forces of learning: the need for a sense of competence, the need for a sense of autonomy, and the need for a sense of relatedness. Then we discuss Ranciere's circle-power problem, which focuses on emancipation and equality. We conclude by discussing the democratic and social justice aspects of heutagogy.

## Self-determination Theory (SDT) and Self-determined Learning (Heutagogy)

At the centre of the heutagogical approach, students choose what to learn and how. Hence, from a psychological point of view such an approach may enable students to learn in a way that is driven by their intrinsic motivation. Following this idea, we focused on the possible connections between heutagogy and self-determination theory (SDT). SDT is a theory of motivation that emphasizes the idea that people should act and learn out of intrinsic and autonomous motivation (Deci & Ryan, 2000, 2015; Ryan & Deci, 2000, 2002).

SDT is based on the demarcation between *intrinsic* and *extrinsic* motivation. Intrinsic motivation "represents a prototype of self-determined activity, in that, when intrinsically motivated, people engage in activities freely, being sustained by the experience of interest and enjoyment" (Ryan & Deci, 2002, p. 10). Intrinsic motivation is also defined as "noninstrumentally focused, …originating autotelically from satisfactions inherent in action", while extrinsic motivation is "focused toward and dependent on contingent outcomes that are separable from the action per se" (Ryan & Deci, 2002, p. 10).

When one learns or acts solely in order to score high on a test, get a reward, earn more money, become a celebrity, or win a game, then he/she is motivated by extrinsic motivation. However, when he/she learns or acts because he/she is curious to understand some phenomena, enrich his/her knowledge or spiritual world, or develop

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his/her skills and capabilities in order to contribute to the environment or society, then he/she is motivated intrinsically.

STD further distinguishes between *controlled* and *autonomous* motivation (Deci & Ryan, 2000). In controlled motivation, people act under external or internal pressure to avoid punishment, rejection, and feelings of guilt or shame. In autonomous motivation, however, people act to satisfy their own interests or curiosities, and/or because they realize the importance of their activities (e.g., learning) or their connections with their goals. A large body of research has pointed to the advantages of autonomous over controlled motivation for learning (Assor, Kaplan, & Roth, 2002; Assor, Feinberg, Kanat-Maymon, & Kaplan, 2017).

In higher education specifically, Orsini, Binnie, and Tricio (2018) found that university students with a high intrinsic motivation profile showed higher scores in the parameters of deep study strategies, self-esteem, vitality, and academic performance.

## *The Three Basic Psychological Needs*

Ryan and Deci (2000) emphasize the effect of emotional and social aspects on learning processes. They argue that the central role of teachers and learning environments is to satisfy the student' three basic emotional and social needs: the need for a sense of competence, the need for a sense of autonomy, and the need for a sense of relatedness. These three needs are universal and essential for all kinds of people, "therefore, satisfaction of these needs should yield positive outcomes in all cultures" (Deci, Ryan, Gagne, Leone, Usunov, & Kornazheva, 2001, p. 932).

**Competence**

People need to feel a sense of competence and capability. They need to feel as worthy persons with capabilities and capacities and to gain mastery of the tasks they face. They need to feel self-efficacy in their interactions with others and to experience opportunities to exercise and express their capacities (Ryan & Deci, 2002). The need for competence "leads people to seek challenges that are optimal for their capacities and to persistently attempt to maintain and enhance those skills and capacities through activity" (Ryan & Deci, 2002, p. 7).

**Autonomy**

People need to feel a sense of autonomy. They need to feel they can control and direct themselves to design and achieve their goals and dreams. Autonomous individuals see that "even when [their] actions are influenced by outside sources, the actors concur with those influences, feeling both initiative and value with regard to them" (Ryan & Deci, 2002, p. 7). Ryan and Deci (2002) emphasize that the opposite of autonomy is heteronomy.

**Relatedness**

As social creatures, people need to feel a sense of relatedness with others. They need to feel worthwhile and sense the belonging and attachment with others (e.g., family, friends, communities, and societies) (Deci & Ryan, 2000). They wish for close, safe, warm, meaningful, and satisfactory connections with their social environment and they want to feel that they contribute to their communities and are meaningful part of them.

Fulfillment of these needs is essential for people's mental wellbeing and growth, their autonomous motivation, optimal functioning, and self-actualization (Deci & Ryan, 2008).

In the educational field, it was found that learning environments and teachers that supported students' basic needs increased the level of the students' conceptual understanding (Deci & Ryan, 2015).

Specifically in higher education, Trenshaw, Revelo, Earl, and Herman (2016) present students' motivation toward learning during a second-year engineering course (Computer Engineering I), which was designed to promote students' intrinsic motivation to learn. Although supporting the autonomy need increased the students' intrinsic motivation, the satisfaction of the relatedness need had a stronger effect on students' intrinsic motivation.

Korthagen and Evelein (2016) found strong positive correlations between fulfillment of the three basic psychological needs of 36 student–teachers and their behavior as effective teachers. They concluded that supporting teachers' need fulfillment contributed to their professional development.

## *SDT and Heutagogy*

Hase (2014) denied the connection between SDT and heutagogy and claimed that "Heutagogy doesn't have anything directly to do with self-determination theory (SDT). SDT is a theory of motivation related to acting in healthy and effective ways" (p. 5).

However, later on, Blaschke and Hase (2016) included SDT as one of the theories which represent the "revolution occurring in the way in which people learn" (p. 25), and Blaschke (2016) recognizes that the self-regulation and self-motivation of SDT are "components of heutagogy, where the learner must be motivated to learn in a self-determined way, but these are not the singular aspects of the theory" (p. 10).

Canţer (2012) finds a stronger connection between SDT and heutagogy in e-learning environments, arguing that SDT "was applied in many domains including education and is connected to the new concept of e-heutagogy" (p. 130). Canţer states that the concept of e-heutagogy fills a gap: "heutagogy meets the needs of learners but learners are most of their life without their teachers and a big part of them are in fact e-learners…" (p. 130). Belt (2014), for example, uses a heutagogical approach in online learning.

Heutagogy as a self-determined learning environment encourages students to be autonomous "by definition", because they need to decide what to learn and how. When students succeed in coping with the challenges (e.g., finding and collecting relevant information, elaborating on it, reflecting on the learning, and presenting their knowledge) by using their own abilities, thus in determining their learning process, they probably experience a sense of capability and competence. So heutagogy has a great potential to support at least two basic needs of SDT: autonomy and competence.

Learning in the heutagogy approach in small groups can support the sense of relatedness of each student in the group to its other members, and to the group as a whole, when he/she contributes to the group by actively sharing his/her ideas, talents, strengths, skills, and competences. The sense of relatedness may also be supported in individual or group learning which intends to advance copings with social and environmental issues among students' communities and societies.

In Part II of the book, we analyze the data gathered from our heutagogy courses (cases) which can also demonstrate the characteristics of a learning environment that supports and fulfils the three basic needs of SDT.

The social aspect of the need of relatedness brings us to discuss the teaching–learning approach that enables promoting human intellectual emancipation and social justice (equality of opportunities).

## Heutagogy, Intellectual Emancipation, and Equality

### *The Social Circle of Power*

From a sociological point of view, we focus on Ranciere's *The Ignorant Schoolmaster: Five Lessons in Intellectual Emancipation* (Ranciere, 1991). In the translator's introduction to the English edition of the book, Kristin Ross presents a problem regarding education and the circle of power.

According to Ross, a circle of power is made through two propositions. On the one hand, working-class youth are excluded from the university because they are unaware of the true reasons for their exclusion. On the other hand, "their ignorance of the true reasons for which they are excluded is a structural effect produced by the very existence of the system that excludes them" (Ranciere, 1991, p. xii).

Ross describes this paradox as taken from Bourdieu's new sociology (Bourdieu effect). She argues that: "1. The system reproduces its existence because it goes unrecognized. 2. The system brings about, through the reproduction of its existence, an effect of misrecognition" (p. xii).

Ross discusses the problematic concept of equality as another component of the circle of power. She criticizes the assumption that "true equality in schooling meant transmitting the same knowledge to each student" (p. xiv). Teaching the same thing to everyone does not mean that each student constructs the same knowledge. Ross adds that "it was simply not true that every child in France now, or at any time in

the past, had a right to participate in the community of knowledge" (pp. xiv–xv). We believe that heutagogy, which advances reciprocal relationships between student and teacher/lecturer, minimizes transmission of knowledge, encouraging each student to construct his/her knowledge and enabling him/her to do so.

In his book, Ranciere recounts the story of Josef Jacotot (see Chap. 7) who taught French to Flemish-speaking university students although he did not speak Flemish. Through a bilingual edition of the book *Télémaque*, he promoted a process of self-learning. Ranciere uses the story to demonstrate a teaching–learning process and a teacher's role that allowed the breaking of the circle of power and enhanced intellectual emancipation and equality.

## *The Sociological Impact of Emancipation and Equality*

Drawing from the story of Jacotot, Ranciere claims that "to emancipate someone else, one must be emancipated oneself" (Ranciere, 1991, p. 33).

From a sociological point of view, Ranciere believes that an intelligent person can empower himself to be equal to others. He strengthens the reciprocal relations between intelligence and equality by asking the question: "How is intelligence possible without equality?" He explains that intelligence "is the power to make oneself understood through another verification… Equality and intelligence are synonymous terms, exactly like reason and will" (Ranciere, 1991, p. 73).

In a new addition of Friere's book *Pedagogy of the Oppressed*, learning is described as a subversive force to enhance people's emancipation and equality. Friere, who taught illiterate adults in Brazil, demonstrated the fact that "those who, in learning to read and write, come to a new awareness of selfhood …often take the initiative in acting to transform the society…" (Friere, 2005, p. 29). Even though Friere's students did not learn to read and write by themselves, one can say that reading and writing are basic tools that enable people to keep learning by themselves. Friere's students became aware of the power of learning and acquired the self-confidence needed to believe in their abilities to change their life conditions.

Friere (Shor & Friere, 1987) developed liberating education, which can be considered as a practice of freedom through a non-hierarchical dialogue between teacher/lecturer and his/her students. Teacher and students are responsible together for the learning process.

In fact, it was one of the first author's students who exposed him to Ranciere's book. In this situation, she was the teacher and he was the student, and together they experienced some kind of equal relationship.

Higher-education students learn much more than just reading and writing (or academic literacy), but one can wonder: (a) if they are really aware of the power of their knowledge to advance their own and others' social equality and emancipation; (b) whether they develop intrinsic motivation to use their knowledge in order to initiate such advancement; and (c) whether they trust themselves enough to be self-determined.

We suggest that heutagogy has a potential to enhance equality feelings between students and teachers/lecturers, and between students and their classmates.

## Democracy and Social Justice Orientations

### *Democracy Orientation*

Friere argued that "you learn democracy by making democracy, but with limits" (Shor & Friere, 1987 p. 90), and Shor, his dialogical friend, adds that "the official curriculum constantly lectures us about democracy without allowing students the freedom to practice it" (p. 90). Heutagogy allows students to practice some elements of democracy (see: Chaps. 2 and 16 for further elaborations of this point).

It seems that heutagogy supports the three needs (SDT) and provides an equal chance to each learner to develop his/her capabilities to increase his/her wellbeing. We assume that this is how heutagogy may help students to develop an orientation toward a democratic society and social justice. In the next paragraphs we justify these assumptions, beginning with democracy.

According to Anderson, Habremas expands the notion of autonomy by dividing it into three types: political, moral, and personal. He explains these different types of autonomy by their absence: "To lack political autonomy is to be subjected to illegitimate domination by others, specifically by not being integrated in an appropriate way in processes of collective self-determination" (Anderson, 2014, p. 91). We believe that students who experience a high level of autonomy have an opportunity to release themselves from domination of structured curriculum and lecturer, and exercise political autonomy.

"To lack moral autonomy is to be incapable of letting intersubjectively shared reason determine one's will. …" (ibid, p. 91). Students who experience heutagogy have to overcome the temptation of not learning in a course which has no prescribed tasks and timetable. The need to be self-determined enhances their responsibility for their learning in particular and for their life in general.

"To lack personal autonomy is to be unable to engage in critical reflection about what to do with one's life" (ibid, p. 91). Students who are experienced in making self-decisions through high-level reflections, as in heutagogy course, develop their personal autonomy.

These types of individual autonomy are necessary conditions to developing and maintaining a democratic society. Following Rogers (see Chap. 2), in democracy, people need to feel autonomous to develop their own identity, to get used to taking responsibility on their life with others, and to take into consideration the others' wills and identities.

### *Social Justice Orientation*

Cochran-Smith identifies some social blocks of present education which prevent social justice. She describes "the acutely conservative political climate, and policy-makers' preoccupation with testing regimes that may reinforce existing inequities and systems of power and privilege" (Cochran-Smith, 2010, p. 446). She concludes that teacher preparation for social justice should "challenge the testing regime and the inequities it reinforces" (p. 464).

Cochran-Smith (2010) emphasizes the importance of teaching and teacher education for social justice, as they "are fundamental to the learning and life chances of all teachers and pupils …in a diverse democratic nation… to imagine and work toward a more just society" (p. 449). She refers to school pupils, but the same can be held for college or university students.

A theory of justice is required, and it should integrate "critical and democratic perspectives with commitments to anti-oppressive policies and practices" (Cochran-Smith, 2010, p. 450). Such justice calls for equality which is "a matter of non-discrimination and equal opportunity to participate" (Kymlycka, 1995, p. 59).

Equality in education can be enhanced by creating learning opportunities "for all students, who are regarded as future autonomous participants in a democratic society" (Cochran-Smith, 2010, p. 452). In heutagogy, learners are invited to choose what and how to learn and to lead the learning process and its outcomes. Such practice gives them an opportunity to develop their autonomous identity as learners and to experience a chance for equality and justice.

## Conclusion

In this chapter we presented psychological and sociological aspects of heutagogy. SDT provides a theoretical framework which justifies heutagogy as a learning environment that enhances personal autonomy, self-competence, and relatedness. This environment augments emancipatory forces leading to equality and to moral and political autonomy. In the cases presented in Part II we will demonstrate these ideas. The issue of education toward democracy is more challenging and we shall return to it in Chap. 16.

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# Chapter 5
# Three "Gogies": Pedagogy, Andragogy, Heutagogy




**Abstract** This chapter begins with a brief description of andragogy and its basic principles, and their contrast to pedagogy. Then, following Hase and Kenyon (2000) and Blaschke (2012), we focus on the main differences between andragogy and heutagogy. Blaschke contrasts andragogy, which she views as "self-directed learning", with heutagogy, or "self-determined learning". Unlike andragogy, heutagogy emphasizes double and triple-loop learning, "capability development, non-linear design and learning approach. It is learner directed, and its aim is getting students to understand how they learn" (Blaschke, 2012). We shall deal with these features, and devote a critical discussion to the proposal that the three "gogies"—pedagogy, andragogy, and heutagogy—constitute a continuum. We shall conclude the chapter by presenting heutagogy's design principles.

## Background

The title of Hase and Kenyon's article (2000), *From Andragogy to Heutagogy*, seems to be a tribute to Malcolm Knowles, the founder of andragogy, whose book, *The modern practice of adult education* (1980), is subtitled *from pedagogy to andragogy*.[1] For Hase and Kenyon, heutagogy is a "natural progression" of andragogy. It is an essential upgrade because andragogy has certain shortcomings, which heutagogy, the "truly self-determined learning" (Hase & Kenyon, 2000, abstract), aims to overcome.

## From Pedagogy to Andragogy

Kenyon's account of andragogy undergoes two phases. At first, he defines it as "the art and science of helping adults learn" (Knowles, 1970, p. 38). He distinguishes between pedagogy, which deals with how children learn, and andragogy, presenting them as two opposing approaches to teaching and learning. In the book's "revised

[1] In Knowles (1970), the book's first edition, the subtitle has been *andragogy versus pedagogy*. We'll return below to this change of Knowles' views.

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A. Glassner and S. Back, *Exploring Heutagogy in Higher Education*,
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and updated" edition (1980), Knowles realizes that andragogy can also be appropriate in helping children learn. He reformulates his definition, so that andragogy becomes "simply another model of assumptions about learners to be used alongside the pedagogical model assumptions…" (1980, p. 43). Knowles further claims that "the models are probably most useful when seen not as dichotomous but as two ends of the spectrum" (1980, p. 43).

Knowles' account of pedagogy locates it within the empiricist epistemology discussed in Chap. 2. His account of andragogy is influenced by the pragmatism of Dewey (e.g., 1916, 1938) and of his disciple (Lindeman, 1926), who applies Dewey's ideas in the context of adult learning. Let us trace this line of thought because pragmatism explains the instrumental focus of andragogy, which, as we shall see, distinguishes it from heutagogy.

## *Dewey and Lindeman*

For Dewey "…education is not preparation for life; education is life itself. Education, therefore, is a process of living and not a preparation for future living" [Dewey (1897) cf. Dewey (1916, Sect. 8.1)].

Dewey posits that humans survive because they have the ability to learn from experience. Hence, experience is the subject matter of learning. For Dewey, experience includes both an active and a passive element. "On the active hand, experience is trying—a meaning which is made explicit in the connected term experiment. On the passive, it is undergoing" (Dewey, 1916, p. 163).

Dewey claims that humans learn from experience by reflective thinking. "The function of reflective thought is … to transform a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort, into a situation that is clear, coherent, settled, harmonious" (Dewey, 1933, p. 105). In between the perplexing situation and the cleared-up one, Dewey defines five "phases of thinking": "(i) a felt difficulty; (ii) its definition; (iii) suggestion of possible solution; (iv) development by reasoning of the bearings of the suggestion; (v) further observation and experiment leading to its acceptance or rejection" (Dewey, 1933, p. 72).

Dewey emphasizes that the reflective process is rational, means-ends oriented, and linear. Nevertheless, it does not have a fixed order, since later phases may require the thinker to return to former ones in the process, to form a learning loop. This is a "one-loop process", which does not require the agent to think about the problem-solving process itself in order to improve it the next time he performs the process. Thinking about the learning process in itself or about the agent's mental activities in it requires further steps of double and triple-loop processes, in which what happens in the first loop is the perplexing starting point.

Knowles does not explicitly refer to Dewey, but he acknowledges his debt to Lindeman, who was the pioneer of adult learning in the United States (Knowles, 1970, p. 51, 1980, p. 56). Similar to Dewey, Lindeman states that the purpose of adult education is not vocational training. It is "to put meaning into the whole of life" (1926, p. 7). For Lindeman "meaning must reside in the things for which people strive, the goals they set for themselves, their wants, desires, and wishes…" (1926, p. 13).

Lindeman acknowledges that adults want to live meaningful life and realize their personalities within their communities, "…But they want also to change the social order so that vital personalities will be creating a new environment in which their aspirations may be properly expressed" (Lindeman, 1926, p. 14; cited in Knowles, 1970, p. 29).

Lindeman posits that "the resource of highest value in adult education is the learner's experience" (1926, p. 93). Therefore, for him, "the approach to adult education will be via the route of situations, not subjects" (1926, p. 8; inspired by Dewey, 1902, 1916, with regard to adult learning). Thus, "…the situation approach to education means that the learning process is at the outset given a setting of reality" (Lindeman, 1926, p. 9).

According to Lindeman, the "situation approach" involves Dewey's phases of reflective thinking going from "recognition of what constitutes a situation" to "acting upon experimental propositions with a view of testing, and if necessary, revamping the assumptions which discussion has revealed" (Lindeman, 1926, p. 93).

As for the political aspect of the pragmatist worldview, for both Dewey and Lindeman it is crucial to replace the traditional pedagogy because of its harmful impact on educating the "Democratic Man". Dewey emphasizes that "Since democracy stands in principle for free interchange, …it must develop a theory of knowledge which sees in knowledge the method by which one's experience is made available …to another" (Dewey, 1916, Chap. 25).

Lindeman says that "you have to educate the learner to live in democracy…under democratic conditions authority is of the groups" (cited in Knowles, 1970, pp. 60–61).

Knowles agrees. "A democratic philosophy", he says, "is characterized by a concern for the development of persons". This involves a "deep conviction as to the worth of every individual, and faith that people will make the right decisions" (Knowles, 1970, p. 60, 1980, p. 67). These decisions are dependent on the individuals proper knowledge Knowles concludes that "learning activities should be based on the real needs and interests of the participants 'as a group'" (Knowles, 1970, p. 60, 1980, p. 68).

## *Knowles on Andragogy Versus Pedagogy*

The influence of pragmatism is evident when Knowles compares the assumptions of pedagogy and andragogy, with regard to their different concepts of the learner, the role of the learner's experience, the readiness to learn, and the orientation to learning.

**The learner**

According to Knowles, pedagogy assumes that the "learner is, by definition a dependent one" (Knowles, 1980, p. 43). The teacher takes full responsibility of determining what, when, and how something is to be learned, and to evaluate if it has been learned. Andragogy, on the contrary, holds that as the learner matures he "moves from dependency toward increasing self-directedness". Therefore, "teachers have a responsibility to encourage and nurture this movement" (Knowles, 1980, p. 43).

Hase and Kenyon notice that Knowles defines self-directed learning as "…the process in which individuals take the initiative, …in diagnosing their learning needs, formulating learning goals, identifying resources for learning, choosing and implementing learning strategies, and evaluating learning outcomes" (1970, p. 7; cited in Hase & Kenyon, 2000[2]).

As we will see, this definition, which echoes Dewey's phases of reflective thinking and Lindeman's situational approach, has been the focus of Hase and Kenyon's critique of andragogy (Hase & Kenyon, 2000).

**Experience**

For Knowles, pedagogy assumes that "as people grow… the experience learners bring to a learning situation is of little worth". Andragogy views the learners' experience as an "increasingly rich resource for learning. Furthermore, people attach more meaning to learning they gain from experience than those they acquire passively. Accordingly, the primary techniques in education are experiential techniques…" (Knowles, 1980, p. 44).

**Readiness**

Pedagogy assumes that people are ready to learn what they ought to learn, if the pressures on them are great enough. It also assumes that most people of the same age are ready to learn the same material. "Therefore, learning should be organized into a fairly standardized curriculum, with a uniform step-by-step progression for all learners" (Knowles, 1980, p. 44). Andragogy holds that "people become ready to learn something when they experience a need to learn it". Hence, the educator has to help learners discover their "needs to know". While, "…learning programs should be organized around life-application categories and sequenced according to the learners' readiness to learn" (Knowles, 1980, p. 44).

[2]Although we couldn't locate this definition in Knowles (1970) (page 7 is the table of content), it appears verbatim in Knowles and Associates (1984, p. 301).

**Orientation**
Pedagogy assumes that "learners see education as a process of acquiring subject-matter content…". Andragogy assumes that "learners see education as a process of developing increased competence to achieve their full potential in life… Accordingly, learning experiences should be organized around competency-development categories" (Knowles, 1980, p. 44). Knowles notes that "people are performance-centered in their orientation to learning" (Knowles, 1980, p. 44). [In the first edition of the book the characterization was "problem-centered" (Knowles, 1980, p. 48).]

In sum, Knowles believes that people have a natural inclination toward learning. Hence, the role of the teacher is more like that of a facilitator. He becomes a recipient learner; and the learning journey itself is not less important than the content and result of learning. Andragogy assumes that learners need to understand, in utilitarian terms, why they need to learn something. They need to learn experientially, they approach learning as a problem-solving process, and they learn best when the topic is of immediate value to their lives.

Knowles translates these ideas into 16 principles of teaching, dealing with all aspects of andragogy's method. Among them, the teacher exposes students to new possibilities of self-fulfillment; and he helps each student diagnose the gap between his aspiration and his present level of performance (Knowles, 1970, p. 52). The teacher adjusts the students' learning experience to their goals, in a mutual process of formulating learning objectives in which the needs of the students, the institution, the teacher, the subject-matter, and the society are taken into account. Moreover, the teacher helps the students to apply new learnings to their experience, and helps the students develop and apply procedures for self-evaluation according to these criteria (Knowles, 1970, p. 52, 1980, pp. 57–58).

## *Critique of Andragogy*

While andragogy was revolutionary when it was promoted by Knowles, for Hase and Kenyon it does not go far enough. Although it provides many useful approaches for improving educational methodology, and indeed has been accepted almost universally, andragogy still holds that the teacher determines the learning process.

Though Hase and Kenyon agree that "in an era of lifelong learning, the possibility to advance learning, for its own sake, should be education's main goal" (Hase & Kenyon, 2000), they see andragogy as too limited to attain this goal for a few reasons: First, because andragogy is too instrumental. It does not consider the learner who does not begin his learning by defining a learning need "but identifies the potential to learn from a novel experience …and recognises that opportunity to reflect on what has happened and see how it challenges…existing values and assumptions" (Hase & Kenyon, 2000).

Second, because of the rapid rate of changes in society, the knowledge economy and the so-called information explosion suggest that we should be looking for an

educational approach in which the learner himself determines what to learn and how his learning should take place.

Third, Hase and Kenyon claim that "Knowles' definition [of self-directed learner] provides a linear approach to learning and sounds a little like the chapters of a 'train the trainer' guide". Heutagogy, they say, "takes account of intuition and concepts such as 'double [and triple] loop learning' that are not linear and not necessarily planned" (Hase & Kenyon, 2000).

As opposed to andragogy, heutagogy presupposes that the learner is not always instrumental, that learning should be more learner determined, and that it contains, as essential constituents, double and triple-loop learning.

## Moving Ahead to Heutagogy

Hase and Kenyon suggest that heutagogy "includes aspects of capability, action learning processes such as reflection, environmental scanning as understood in Systems Theory, and valuing experience and interaction with others" (Hase & Kenyon, 2000). It also enables proactivity.

As we saw in the introduction, in later publications (e.g., Blaschke, 2016) heutagogy's principles include learner's agency, self-efficacy and capability, reflection and metacognition, and nonlinear learning. All these aspects are interdependent. They complement and strengthen each other to empower a self-determined learner through double and triple-loop processes.

### *Double and Triple-Loop Learning*

For Hase and Kenyon, double-loop learning, as conceptualized by Argyris and Schön, is one of the cornerstones of heutagogy (Hase & Kenyon, 2000). Argyris and Schön distinguish between two kinds of learning: adopting new action strategies to achieve our aims through one-loop learning and changing our aims through double-loop learning (Argyris & Schön, 1974, p. 18; based on ideas of Ashby and of Bateson).

In double-loop learning, the learner "questions and tests one's personal values and assumptions as being central to enhancing learning how to learn" (Argyris & Schön, 1978; cited in Hase, 2009, pp. 45–46). Double-loop learning is nonlinear. More often than not, the reflection turns out to be unpredictable, for it enhances spontaneous discourse rather than planned activity.

Double-loop learning enables the learner to transfer learning from problem to problem (Eberle, 2009, p. 183). Eberle adds that besides finding a solution to a problem, "students study the process of how they came to their conclusions, how the process can lead to other solutions, and how their own assumptions changed through the process" (Eberle, 2009, p. 182, 187; cf. Blaschke & Hase, 2016, p. 28). Thus,

double-loop learning opens up opportunities for transformative learning (Blaschke, 2016, p. 12).

In later publications, Hase (2014, 2016) further distinguishes between double and third-loop learning. Triple-loop learning is devoted to "*learning about learning*" or "learning to learn" and learning lessons from experience. It involves the agent's metacognition as he reflects on himself and asks, what do I learn about myself as a learner.

An essential element of double and triple-loop learning is that it deals with the tacit knowledge of the reflective agent. Learning how to learn is a practical activity and following Aristotle's notion of practical knowledge it might refer to four ingredients.

**Aristotle on practical knowledge**

Following Aristotle, learning to learn practical knowledge is a cluster of four interrelated constituents (Back, 2002):

(1) The agent's practical theory about learning.
(2) The agent's excellence in deliberation about learning situations.
(3) The agent's mastery of "knowing how" to learn; and
(4) The agent's [practical *nus* (intuition) which is the ability to perceive the uniqueness of the concrete situation while at the same time see it as a "case of…" learning (Back, 2002, 2016).

**The practical theory**: Each agent has a set of practical theories which enables him to understand the situations he faces and act accordingly. Thus, as a learner, he also has a practical theory of learning. Unlike theoretical knowledge about learning, the practical knowledge relating to real-life situations is contextual. It can only be learned from experiences of learning, from what has really happened at a certain event, in certain conditions. It contains generalizations about causal links, aims, and means in a certain context.

The practical learning theory is built by the agent himself. He has to understand the "why" of his actions, and build, for himself and by himself, the knowledge he needs. He tries to generalize his knowledge into a theory, whose generalizations are only generally true.

Argyris and Schon call such a theory a "theory-in-use" (1974, pp. 6–7). For them, it is not the espoused theory to which the agent "gives allegiance", but the knowledge he actually uses while acting in the world. As Polanyi observes, this theory contains an essential ingredient of "tacit knowledge", which discloses that "we can know more than we can tell" (Polanyi, 1966, p. 4; Argyris & Schön, 1974, pp. 10–12).

Korthagen calls one's practical theory a theory with [lower case] "t", as opposed to the (scientific) theory with [upper case] "T" (Korthagen et al., 2001). The learning theory with t is subjective and relative. It is constructed using double and triple-loop reflections on the learning activities, their contents, aims, and their mode of operation. The agent inquires the ways he arrives at such a theory, makes it public, criticizes it, and modifies it.

**Deliberation**: The ever-changing context requires that the agent examines his t-theory of learning time and again. Since its generalizations are provisional and subjective, he has to decide, for every single case, whether his t-theory is applicable to it. He has to constantly deliberate (Aristotle, 1984, III, 3, $1112^b$ 9–10).

The deliberation process presupposes the agents' wishes and goals. It discloses the possible options to fulfill those goals. The process ends with a decision to perform the "best and easiest" (ibid, $1112^b$ 12) action to attain them. However, the process of deliberation not only concerns the means but includes the clarification of ends. Again, the triple-loop process probes the agent's presuppositions about his learning ends and how he learns best.

**A mastery of "knowing how"**: All the agent's knowledge is futile if he does not know how to perform the selected action. He has to be proficient and have the relevant skills (Ryle, 1949, pp. 28–32; cf. Schön, 1983, p. 51, 1987, p. 22). The triple-loop process concerns the ways the agent learns from experience, the difficulties he faces in such learning, and so on.

**Practical *nus***: To see whether the agent's conclusion might be efficient and effective, he is endowed with practical *nus*. *Nus* is a conceptual intuition which accompanies the whole process. At the beginning, the *nus* enables the agent to "see a phenomenon as a case of…" (e.g., a yawn is a sign of boredom, or "this is learning…"). At the end, the *nus* enables the agent to immediately "see" (without the need of further information or thinking), whether or not the action arrived at has been meaningful learning. *Nus*, a Greek term which has almost disappeared from the current discourse, can be developed only out of experience and reflection, and deliberation which constantly examines whether a certain t-theory is applicable in a certain case.

Moreover, the *nus* itself might become the subject of triple-loop learning, dealing, for example, with the question, is my *nus* infallible? Can I trust it? Is it modifiable? and so on.

Each of the process ingredients influences and is influenced by the other ingredient (Back, 2016, p. 127). Thus, we suggest that triple-loop learning concerns not only the theory-in-use of the agents but all of the ingredients of their practical knowledge. It does not involve only "the challenging of their 'theories in use', their values and their assumptions" (Hase & Kenyon, 2000). It might probe the ways the agents learn to enhance their practical *nus*, the ways they learn to conduct their deliberations, and the ways they learn to "know how" and "master" the capability of learning how to learn.

### Capability

Triple-loop learning is a precondition of capability formation. For Hase and Davis, "…capable people are those who: know how to learn; are creative; have a high degree of self-efficacy; can apply competencies in novel as well as familiar situations; and work well with others" (Hase & Davis, 1999). Capacity differs from competency, in that competency involves the acquisition of knowledge and skills, while capability is a holistic attribute (Hase & Davis, 1999).

Hase and Davis base their account on Stephenson and Weil (1992), for whom "capable people have confidence in their ability to take effective and appropriate action; explain what they are about; live …effectively with others; and continue to learn from their experiences" (Stephenson in: Stephenson and Weil, 1992, p. 2).

This account echoes Bandura's self-efficacy theory. For Bandura, self-efficacy is an individual's belief in his ability to achieve certain goals or deal with prospective situations (Bandura, 1977). The connection between self-efficacy and capacity is straightforward. To exercise self-efficacy, learners must be capable of mastering activities in a self-directed way (cf., Blaschke, 2018).

Similarly, for Blaschke, capable people exhibit the following traits: "self-efficacy, in knowing how to learn and continuously reflect on the learning process; communication and teamwork skills, working well with others and being openly communicative" (Blaschke, 2012). They also show their creativity, particularly in applying competencies to new and unfamiliar situations and by being adaptable and flexible in approach; positive values (Blaschke, 2012; based on Hase & Kenyon, 2000; Gardner et al., 2008).

**Action learning and communities of learning**

Hase and Kenyon (2000) note that one way to implement double-loop learning is through "action learning" (as described by Kemmis & McTaggart, 1988). McGill and Beaty define action learning as a process through which "individuals learn with and from each other by working on real problems and reflecting on their own experiences" (McGill & Beaty, 2001, p. 11). McGill and Beaty emphasize that "action learning is based on the relationship between reflection and action" (McGill & Beaty, 2001, p. 12).

Thus, action learning can be viewed as a cyclical process involving a combination of experience, reflection, concept formation, and experimentation, where reflection and discussion occur in small groups facilitated by an adviser. This idea is further pursued by Lave and Wegner, for whom learning is situated in a specific social group. They say that "rather than learning by replicating the performances of others or by acquiring knowledge transmitted in instruction, we suggest that learning occurs through centripetal participation in the learning curriculum" (Lave & Wegner, 1991, p. 100).

According to Lave and Wenger's definition, "communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger & Wenger-Trayner, 2015). Thus, "learners inevitably participate in communities of practitioners and that the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community" (Lave & Wegner, 1991, p. 29).

In our cases, since the students' community of learning belongs to the academic environment, it deals with both the content learned (double-loop learning) and the learning processes in the group (triple-loop learning).

However, if we link the andragogical insistence on a democratic process of learning with the place of the group in the learning process, we face a difficulty with regard to heutagogy, which might be much more individualistic in its nature. Is it, in

principle, a "must" that the learning process of the individual be collaborative, for example, in communities of learning, negotiated with others? This issue bothers some educators. For example, O'Beirne remarks that a learner in heutagogy course is not necessarily determining her learning, But is "involved in a more socio-constructivist type learning where, as a heutagogical learner she avails of, is influenced by, develops, contributes to, criticizes and ultimately reflects on, a social networking scenario" (O'Beirne cited in Luckin et al., 2010). We'll return to this point in Chap. 16.

Learning is a developmental process in which "learners need to understand how subjects are constructed, what is canonical and, in the sense of learner generated contexts, that learning is a social process of discussion, negotiation and partnership". They further emphasize that "where learning enables you to go out into the world equipped not only to solve problems, but also to identify new areas worthy of your attention" (Luckin et al., 2010).

## *The Pedagogy–Andragogy–Heutagogy Continuum*

Since the inception of heutagogy in 2000, there has been an ongoing discussion whether the three "gogies" can be implemented independently of each other, or whether they form a continuum, that is, three successive stages in the developmental path of the learner.

Reynolds, Laton, Davis, and Stringer (2009) advocate the continuum approach. For them there are definite teaching/learning stages "through which students navigate as they mature in their learning abilities, and it addresses the roles that teachers assume in this journey" (ibid.). Heutagogy suites only the student who is "able to creatively apply knowledge and skills, has an expectation of success. Accountable for decisions and actions and realizes independence" (ibid.). Moreover, he is able to fully integrate new values and behaves consistently with new values (see Bandura, 1977 about self-efficacy).

As they explain, "analogous progressions could be cited. From a novice chess player to a skilled grandmaster…" who "has experienced maturation through educational environments and techniques unique to his context" (Reynolds, Laton, Davis, & Stringer, 2009).

Reynolds et al. do not mention the typical academic path, which has the same characteristics: a student of the first academic degree (BA, B.Sc., etc.) usually learns in a pedagogical environment, whereas in the second degree (MA, M.Sc. etc.) he learns in an andragogical setting, and his research degree (Ph.D.) has a much more heutagogical flavor.

The practical consequence of Reynolds et al.'s approach is that "…the impetus is placed upon the teacher to assess student maturity, modify instructions to meet the student's gogical needs, and assist maturation to the next stage" (Reynolds, Laton, Davis, & Stringer, 2009). If such an attitude is accepted, then the student cannot "leap" straightaway to heutagogy. Since the average student in higher education is acquainted with pedagogy, the question is if he can go directly to heutagogy

without first experiencing andragogy. We believe that he can. This, however, does not mean that the teacher cannot provide scaffolded support to the students, as long as the scaffolding is requested by the students and is not teacher-driven. (We shall exemplify such a process in the cases presented in Part II.)

But if the teacher has to decide whether the student is ready for heutagogy, it means that the teacher remains in the pedagogical stance. "I know what is good for you" is still his leading belief. The alternative, "I [the student] know what is good for me", has been suggested by Rogers, who says: "unlike many of us, [the infant] *knows* what he likes and dislikes, and the origin of these value choices lies strictly within himself…" (Rogers, 1969, p. 243). The problem is that gradually, "the infant learns to have a basic *dis*trust for his own experience as a guide to his own behavior…" (Rogers, 1969, p. 245). Originally, this idea comes from Rousseau. In the opening sentences of *Emile* he criticizes education because it destroys the child's authentic nature (Rousseau, 1789 [1977]).

Still another view of the PAH (Pedagogy-Andragogy-Heutagogy) continuum is suggested by Anderson who claims that the difference between pedagogy and andragogy is that "in *pedagogy*, what is to be learnt, and how, is both determined and directed by the teacher; in *andragogy*, it is determined by the teacher and directed by the learner" and both differ from in *heutagogy*, in which "both determination and direction shift to the learner" (cited by Luckin et al., 2010).

Luckin et al. comment that the three "gogies" have different values: Pedagogy develops the learner's understanding of a subject. Andragogy develops an understanding of how to negotiate a way through the learning process. Heutagogy develops the "understanding that you are empowered to *look at* the learning context afresh and take decisions in that context" (Luckin et al., 2010).

Thus, heutagogy presupposes andragogy, which presupposes pedagogy. It is necessary to begin with pedagogy, for otherwise the learners will lack necessary canonical knowledge. In other words, the learner has to be mature enough to be capable of learning in a heutagogic manner.

We suspect these assumptions. We shall argue in Chap. 6 that this approach portrays an outdated conception of knowledge. Hence, the idea that you have to begin with pedagogy, proceed to andragogy, and only then deconstruct the learner's concept of learning in order to build the new learning approach (heutagogy) seems quite odd (see Gerstein, 2014). We prefer Rogers' view which holds that beginning education with heutagogy is a much more "natural" way because this is how the child naturally learns.

Hence, we ask why not to begin straightaway and use heutagogy from the very beginning of the learners' academic studies? The students are already well trained in the pedagogical tradition. So, the unlearning process of their ways of learning is inevitable. The various cases presented in the next part of the book illustrate attempts to cope with this perplexing issue. None of them requires an andragogical step in the way to heutagogy.

A related question is whether heutagogy is a method of teaching or a "way of education" (in the sense of a way of life)? Is it a set of tools which the teacher can use, whenever needed, to enhance the students' learning, or is it a holistic approach

that has to be applied in its whole? That is, is it possible to have a sequence of heutagogical elements in a pedagogical or andragogical course or lesson without losing its main *raison d'être*? We will return to this question in Chap. 16 of the book.

## Heutagogy: Principles of Design

The most recent list of design principles that contribute to realizing the theoretical principles of heutagogy (Booth, Blaschke, & Hase, 2017, pp. 559–560; cf. Hase, 2014, p. 13, 2016) raises a related issue of the pace and structure of the heutagogic processes. The principles demand that the teacher be learner-centered, provides nonlinear curriculum, and enhances capability development, collaboration, and reflection.

Many of the principles fit well within the andragogical perspective. Only some of them are heutagogy-specific: the understanding that learning is nonlinear and the idea of double and triple-loop learning as important components in developing a capable learner, who knows what to learn and how to learn.

However, to us this list seems too restrictive, for it still conceives of the teacher as determining too many aspects of the learning process. Thus, for example, it states that the teacher should "involve the learners in designing their own learning content and process as a partner", or that "he should provide lots of resources and let the learner explore".

A more heutagogy-oriented principle would suggest that "the teacher should accompany the students in their learning journey, and enable them to determine their own learning path, process, content, resources and outcomes". As we have already mentioned, for us heutagogy means that the students decide what they will learn, how, with whom, when, and in which environment. They also decide how to evaluate their learning and choose how to present the knowledge they gained about the subject-matter and about themselves as learners.

The gap between heutagogy's ideal and the suggested practice principles becomes evident if we look more closely at the "heutagogy design process" (Blaschke & Hase, 2016, p. 31), which resembles Dewey's one-loop process of reflective thinking or Lindeman's situational approach. Although, as suggested with the double-sided arrows, it is possible to move back and forth between the phases of the process, it proceeds from identifying learning needs and outcomes to assessing the learning outcomes. Thus, during the first learning phase the learner and teacher work together to identify learning needs and outcomes. Following this phase, the learner and teacher discuss the assessment process. "At the end of this part of the process, a learner contract is created and agreed upon" (Blaschke & Hase, 2016, pp. 31–32).

The idea of contract goes back to Rogers, for whom one of the ways to conduct student-centered learning is through the use of students' contracts, which enhance "security and responsibility within an atmosphere of freedom" (Rogers, 1969, p. 133; cf. 1983, pp. 149–153). The contract is between the teacher and the learner. Contracts allow students to set goals and to plan what they wish to do. It defines the "what" of

the learning, the ways to learn it, with whom the learning takes place, the expected results of the process, the timetable, the method and criteria for the evaluation of the learning, and the place of the teacher in the process.

However, this phase is clearly andragogical in character. If one begins by identifying needs and outcomes, one is clearly within the instrumental perspective of learning. Hase and Kenyon's insight that such a design "…does not consider the learner who does not identify a learning need at all but identifies the potential to learn from a novel experience as a matter of course" (Hase & Kenyon, 2000) has been overlooked.

Blaschke and Hase cite Dick, who says that to be successful in this design process, teachers need to create "a challenging, achievable and worthwhile task, providing participants with as much autonomy as possible, and engendering support based on strong and collaborative relationships" (Dick, 2013, p. 52). This, again, can be accomplished in an andragogical environment as well. It is still the teachers who are responsible for "providing participants with as much autonomy as possible" (Dick, 2013, p. 52).

Once the learner and teacher have reached agreement on the contract, the learner can choose any resource relevant to their learning process. In this phase teachers facilitate learners in helping learners to self-reflect (Blaschke & Hase, 2016, p. 31).

The teacher is again proactive in the learning process.

The last phase of the process has the same underlying characteristics. In this phase learning is evaluated in order to determine whether the contract has been fulfilled. As heutagogy is learner-centered, "the learner is the primary assessor of his or her learning" (Blaschke & Hase, 2016, p. 32).

These considerations show that heutagogy itself might have a spectrum of implementations ranging from a more andragogical design toward a more self-determined one. In the second part of this book we will exhibit various heutagogy options and in Chaps. 14 and 16 we will discuss their significance.

Blaschke and Hase (2016) devote an entire section to six design elements which may support and promote heutagogy learning. Each of these elements is negotiated between the teacher and the learner, and they require that the teacher be able to manifest them in a way that empowers the students' self-determination.

Within the design described in the preceding paragraphs, the learner should explore, create, collaborate, connect, share, and reflect.

"**Explore**" means that "learners …explore a variety of paths and sources of knowledge on their journey. They …develop and test hypotheses and ask and answer questions… Structured curricula are out; learner-defined curricula are in" (Blaschke & Hase, 2016, p. 33).

"**Create**" means that "giving the learner the freedom to create. This can be achieved using a variety of learning approaches, e.g., writing, designing, and drawing" (Blaschke & Hase, 2016, p. 33).

"**Collaborate**" means that: "… learners can learn from each other and working together toward a common goal, by sharing information and experiences. They simply help each other along the way" (Blaschke & Hase, 2016, pp. 33–34).

"**Connect**" means that "networks and connections are a critical aspect within heutagogy, as it is through these connections that new avenues of learning can be created" (Blaschke & Hase, 2016, p. 34).

"**Share**" means that "learners can learn from each other's discoveries and experience, as well as identify others with similar interests, which can lead to potential opportunities for future collaboration" (Blaschke & Hase, 2016, p. 34).

"**Reflect**" means that learners should reflect on the new knowledge that they has gained, as well as how they have learned—and the ways in which this learning experience has influenced their value system and beliefs (Blaschke & Hase, 2016, p. 35).

This is the canonical representation of heutagogy principles and design. It is based on the priority of learner-centeredness, nonlinear curriculum, and capability development, collaboration, and reflection. However, we propose emphasizing another essential idea: "let the learner explore" (Blaschke & Hase, 2016, p. 32) which is mentioned in the principles, and is the first ingredient of the design.

While it is "…fundamental to heutagogy" (Blaschke & Hase, 2016, p. 32), it does not appear in the design process. For us, learning is wandering, whose aim is not only to discover or create knowledge but also, or mainly, to enhance the learner's personality (*Bildung*).

A teacher who otherwise complies with heutagogy principles, might become a "block to learning" if he does not acknowledge that "new …pathways are developed" (Booth, Blaschke, & Hase, 2017, pp. 559–560), mainly through explorations in the ocean of knowledge. This educational credo requires a principled justification and a much more detailed examination of its philosophical background.

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# Chapter 6
# The Philosophy of Heutagogy




> *Certainly, I never learned anything unless I left, nor taught someone else without inviting him to leave his nest…*
> (Serres, 1997, p. 7)

**Abstract** In this chapter we present the philosophical basis of heutagogy from our point of view. Based on the writings of Michel Serres, we discuss the ideas of knowledge and learning as wandering in a networked world. Our concept of heutagogy is strongly influenced by the French philosopher Michel Serres, (mainly 1964 [1968]; 1968; 1991 [1997]; 2015 [2012]; 2016). We embrace Serres' (a member of the French academy, 1930–2019) "image of thought" of the world as a network, the figures of *Hermes* and the "instructed third" (*le tiers instruit*), and the claim that there is no learning without wandering. At the centre of Serres' view stands the notion of the third (*le tiers*) which has logical, epistemological, and ethical aspects. We'll begin by uncovering the logical features of the learning-as-wandering process and examine its ethical significance.

## Logic: Its Difficulties and Their Problematic Moral Impact

Classical deductive logic dictates how we should think. It defines the correct (or valid) way of thinking by postulating the laws of deriving necessary conclusions from given premises. These laws are truth-preserving. If the premises of a valid argument are true, its conclusion is necessarily true. The proof that a given argument is valid is that the assumption that its premises are true and its conclusion is false, leads to a contradiction (The Internet Encyclopaedia of Philosophy, 2018).

Classical deductive logic is binary, hierarchical, and linear.

- *Binary*: Every statement is either "true" or "false", and there is no other possibility. This is the famous Aristotle's "law of excluded middle". It postulates that any "middle" or "third" possibility, beside true and false, is unthinkable. For example, the statement "This book has an index" is either true or false. No other option is possible.

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- *Hierarchical*: Every logical system is based upon some definitions of its syntax, a few axioms (tautologies), which are necessarily true because of their formal structure, and a set of truth-preserving rules. Every statement derived from the axioms by these rules is necessarily true as well.
- *Linear*: Valid reasoning proceeds from axioms to theorems, from premises to conclusion. It is forbidden to "beg the question" and go the other way around.

The structure of a classical logical system resembles a *tree* (Kleene, 1952, 106; Jeffrey, 1967) (see Fig. 3.1). Like a tree, it has a trunk (axioms) which splits into branches (theorems). According to Deleuze and Guattari, the basic principle of the tree-type thinking is that the "one becomes two" (or more) (1988, p. 5). Hence, it presupposes the idea of a whole which can be sub-divided and considered as manifold expressions of a single concept or unity. In other words, the tree-type thinking rejects the idea that the world is a multiplicity.

The tree-type structure has many advantages. First, it leads to clear, unequivocal, systematic, and coherent thinking. For example, a move from one branch of the tree to another is forbidden unless it is logically coherent. Second, the tree-type structure is an appropriate tool for theoretical and practical reasoning because it enables scientists to construct theories and organizations to define their bureaucratic structure. Moreover, according to Piaget, it provides the basic building block of the child's cognitive development because his mental schemes are built by assimilation and accommodation of information using the law of the excluded middle (A does/does not resemble A') (Piaget, 1978, p, 180).

But, as Serres (1997) observes, the limitations of the tree-type thinking are far-reaching (Serres, 1968L, p. 121 note). His main argument is that it ignores the idea of the world as multiplicity and imposes an artificial, unified structure on a chaotic reality. Hence, it leads to a mistaken epistemology, a deceptive concept of the "self", and dangerous ethical consequences.

We will return below to this far-reaching statement but, to begin with, let us present the claim that the law of excluded middle, upon which the tree method is based, is not always true. First, it leads to paradoxical consequences in set theory (e.g., the well-known liar paradox, which arises when a person says: "This statement I am now making is a lie", and asks what is the truth value of this sentence (Kleene, 1952, 29)). If the most elementary mathematical system is in principle not consistent, then using is as the basis for a "correct" way of thinking has no value.

Second, as Serres notes, there are interesting cases in which the "middle" must not be excluded. As an example, he tells the story of the invention of irrational numbers, in which some anonymous Greek sages discovered that "in measuring the diagonal of a square having sides of length one, …the length of the diagonal could be expressed neither …by an even nor an odd number" (Serres, 1997, p. 44).

Clearly, "from this contradiction the third should have been excluded. But if that were the case, the said diagonal wouldn't exist… [But] It exists. It was called inexpressible, irrational other" (Serres, 1997, p. 44).

Eventually, the violation of the law of the excluded middle led to an innovative discovery. "Great mathematics had just been born" (Serres, 1997, p. 44). Thus emerges

Serres' idea of the *third* as a possible milieu for novelty and creativity. Note that the claim is not that classical deductive logic is wrong. This will bring us back to a binary point of view. The claim is that it presents a partial picture. In some contexts, there are other possibilities besides true or false, so that if the only criterion for being rational is provided by classical logic, it is not always reasonable to be rational. Other options, besides the two opposing poles, are not only possible but even preferable.

Serres suggests that the classical binary logic should be replaced by modal logic, which deals with pairs of possible/impossible and necessary/possible (Serres, 2016, p. 220). It is not enough to ask whether a given statement is true. In addition, one has to ask if its truth is contingent, that is, if it could be false under other conditions (in a different "possible world").

## *Ethical Considerations*

Serres' criticism of the pivotal place of classical logic in the modern mind has affinities with ideas of Foucault, Deleuze, Guattari, and Derrida. All of them regard "logocentrism" as mistaken and as a source of the malaises of modernity. Serres believes that the tree-type thinking raises ethical difficulties, mainly because it urges us to ignore the mesh image of thought (see Chap. 3). The tree-type thinking makes the world simple, but this simplification has harmful consequences because, as we have seen, it imposes an artificial unity on a chaotic world.

Based on binary thinking, the tree-type thinking formulizes dichotomies which lead to conflicts between individuals and societies, because it divides the world into "us" and "they". Usually, they, the "others", are against us. We are better or favored because we recognize the truth that they deny, or because we have a chosen skin color, gender, nationality, religion, estate, or social status, and so on. At the end, those others will disappear, but in the meantime they are dangerous. They present an alternative we hate, and they can harm our young generation. We should encircle ourselves and limit our connections with them. The many religious, national, social, or ideological wars demonstrate how such a view might be disastrous.

Serres is sure that although human groups need struggle in order to be cemented, conflicts never produce anything productive (Serres, 2016, p. 128, 130). More often, they cause human misery and suffering. Replacing binary thinking becomes a must in the path to making the world a better one.

Hierarchy presents another moral obstacle. Logic is more than a formal calculus for evaluating the validity of given arguments. It is often seen as the theoretical "science of order" (Hicks, 1920). The tree-type thinking is founded on an ordering relation between constituents. A typical example of order is the relation "bigger than". This relation has three main characteristics: it is irreflexive (X cannot be bigger than itself), asymmetric (if X is bigger than Y, Y cannot be bigger than X), and transitive (if X is bigger than Y and Y is bigger than Z, then X is bigger than Z).

This kind of relation exemplifies any ordering which can be defined over a scale: physical relations (stronger than, higher than, heavier than…), moral or practical

relations (better than, more useful than…) familial/genealogical relations (parent of…), political/hierarchical relations (manager of…), causal relations (cause of…), temporal relations (before…) socio-economic relations (richer than…), and so on. Logical relation (being a consequence of…) is a specific example of order.

For Serres (1982K), "order" is not a value-neutral concept, because the ordering relation is a zero-sum game. If one maps the members of a group on a given scale (i.e., with regard to a given relation), each one of them occupies exactly one place (unless they are identical in the relevant aspect). If someone is in the highest position, it means that all the others are inferior to him. Ordering is competitive. There must always be a bigger entity and a smaller one, a winner and a loser.

The moral problem is that in many cases an ordering mapping suggests the interpretation that a higher position on the scale is also better, and the highest is superior (…and the winner [the first, the best] is…). Quite often, hierarchy implies authority and obedience. If somebody is the first, all the others become his subordinates. They have to treat him accordingly, fulfill his demands, and observe his orders. The superior should be obeyed, respected, or receive privileged rights. If his reasoning is correct, any other reasoning must be wrong.

Serres devotes the paper "Knowledge in the classical age" [in French: "The game of the wolf"] (1982K) to defending this claim, which is exemplified in La Fontaine's fable "The Wolf and the Lamb". The fable begins with the motto "The reason of the stronger is always the best", which, in French also means "The reason of the stronger is always better" [*La raison du plus fort est toujours la meilleure*] (Serres, 1982K, p. 15; cf., editors' note).

Thus, the kind of ordering dictated by classical deductive logic, or the tree-type network, is morally destructive. Consequently, pursuing this kind of reasoning augments human suffering (Serres, 1997, 126–131). It leads to never-ending struggles, since no one is forever the "first", and the current superior must protect his authority by all means.

Breaking the hierarchal, linear way of thinking may weaken this kind of power relationship. It suggests a non-competitive way of thinking in which some possible "*third*" might find a proper place, since it breaks the ordering relations.

## *Education*

As we saw in previous chapters, the logic of standard formal education is binary. It is full of either/or dichotomies: formal versus informal; students versus teachers; means versus ends; processes versus products; classes versus breaks; pass grade versus fail and so on. As a result, education, from kindergarten to university, is, by its very nature, coercive.

Formal education limits creativity and prevents inventiveness. It does not educate the student to ask, "is it necessary that…?", or "can it be different from…"? It favors obedience and leads toward the "correct" worldview. If a mesh-type network replaces the tree-type one (see Chap. 3), education will be less hierarchical and more tolerant.

It will better suit the need to enhance creative and critical thinking and empower the learner's capacity to develop his/her own identity. Such a structure can strengthen the required change of the educational system due to the digital revolution.

## The Epistemological Aspects of Network Topologies

### *The Digital Revolution*

According to Serres (2015), every technological revolution generates a radical change in the concept of knowledge, its organization and dissemination, and thereby in the learning environments and the corresponding teaching–learning strategies (Floridi, 1999; Harasim, 2012).

In prehistory, that is, before history was written, knowledge was kept in people's mind, and was orally transmitted from one person to another, from elders to youngsters, from tribe to tribe, and from generation to generation. Mythologies, stories, songs, ceremonies, rituals, and wall-paintings preserved the tribe's knowledge, crystallized its identity, and strengthened the community's way of life. Knowledge was context-dependent. It was attached to a certain time and place. If someone wanted to know something, he had to physically go to the person who knew it. Learning was informal. Children accompanied their parents, other elders, and their mates, acquiring the necessary knowledge by imitation, playing games, rote learning and participation in social ceremonies (e.g., Cajete, 1996).

Thereafter, writing was invented. Knowledge became hand-written, to be found in papyruses and scriptures. This progress changed human culture. It enabled humans to preserve and transmit knowledge regardless of the place and time of its creation. Literacy allowed a separation between the knowledge and those who knew it. It was no more dependent on the memory of a knowledgeable person.

Although each manuscript was written in a limited number of copies, and was in danger of physical destruction, it could be carried to other locations, stored in libraries, and read by different people at different times. This enabled the dissemination of knowledge and its discussion, interpretation, criticism, and modification. The social implications of the possibility to write were far-reaching. As Serres (2015) makes clear, without it, humans would not have been able to build states and empires, enact laws, think about monotheism and history, and invent sciences.

The invention of writing required the construction of formal education systems. Schools were established, in which children learned to read and write, basic arithmetic and geometry. In most societies only certain elite groups (political, military, financial, or religious) sent their children to school, to receive the knowledge they needed to keep their privileged status.

Learning was script-dependent. It was based on hearing the teacher, who read from the only available book, copying what was written in the book or on the board, and rote-learning what was read. The learned texts were usually religious or moral scripts. They strengthened the hegemonic culture of the educational system.

After the invention of the press, in the fifteenth century, knowledge became much more accessible. While the invention of writing enabled humans to preserve knowledge, that of the press enabled them to copy and disseminate it (Floridi, 1999). For the first time in history it was possible to publish any book in many copies. Alongside religious books, secular publications, including literature, began to appear. There were more libraries and they contained more books, and buying relatively cheap books in the newly established bookshops became feasible.

The big circulation of printed books had immense significance. Many individuals, and not only the nobles or the priests, became literate. They began to demonstrate original and critical thinking about their life and the existing social, religious, governmental, and public institutions. It became easier than ever for them to spread their beliefs. This change enabled the development of sciences and technology. The new scholar was no more the interpreter of old scriptures. He constructed new and updated knowledge.

The press technology had another social effect. It shaped the notion of privacy. As the books became accessible, any literate individual could read by himself, at home, without the need of attending a public reading. Thus, the invention of the press strengthened the concept of the man as an individual. Human rights and human freedom came to be respected.

The new industry needed literate workers. To educate them, it was necessary to establish a public system of mass education. Gradually, attending school became mandatory for more and more ages and social groups. Beside the teachers, the printed book became the main learning source accessible to each learner. The book changed the learning process. It demanded new skills and competencies. Gradually, the curriculum was changed to include history, mathematics, the natural sciences, and various subjects required by the arising, secular, nation-states.

During the last centuries, the invention of the print enabled the great revolutions of the modern age: The reformation, the scientific and industrial revolutions, the French and the American revolutions. Today, we face another revolutionary era. The information and communications technology revolution brings a similarly dramatic change in the concept of knowledge, its creation and dissemination, and the way it is learned.

Knowledge is more accessible than ever. It is saved in digital files, stored in websites and databases within clouds. Its amount is huge, and it is becoming more audio–visual than written. The networked devices (including computers, laptops, tablets, and smartphones) are becoming the major tool of creating, sharing, and spreading information and knowledge. The cloud and the internet enable collaboration in an environment without boundaries of time and place. This environment is constructed as a mesh network. It changes the concept of knowledge, and accordingly, learning becomes wandering in this vast mesh network.

Heutagogy replaces the tree structure with the mesh-type network structure (see Chap. 3; Fig. 3.1). This is a much more chaotic environment. The mesh network has no entry point. It is possible to join the net of connections at any point and go anywhere in it. It is "a map and not a tracing" (Deleuze & Guattari, 1988, p. 13, who discuss the similar notion of the *rhizome*[1]). It does not force the traveler to follow a certain predetermined path but offers him multiple opportunities to explore.

Similarly, learning does not have a prescribed structure or predetermined content. It does not have predefined rules (e.g., logical or causal) for moving from one node to another. It uses modal logic to advance multiplicity and tolerance. It urges the student to find his own way in the ocean of knowledge, including learning in the tree or the bus structures if he so chooses.

## *The Nature of Knowledge*

For Serres, "epistemology is also ethics" (1997S, p. 161). This is because knowledge is the key to diminishing human suffering and improving the quality of our life. This reasoning raises a question, because it might be that "…he who increases knowledge, increases pain" (Ecclesiastes, 1:18). The threatening potential of the natural sciences to destroy our planet calls for ethical considerations of their impact. So, it is necessary to ask what kind of knowledge will help humanity to survive and flourish.

Serres believes that one of the main obstacles to dealing with the moral sphere in general and with the problem of evil in particular is the "two cultures" perspective of our modern worldview (Serres, 2016, p. 14). Following Snow (1998), it is quite common to assume that there is a split between "two cultures", the arts or the humanities on the one hand, and the natural sciences on the other (Serres, 1980). Science is data-based, exact, rational, and useful (for it has technological implementations). Art and humanities are emotional, irrational, and even mystical. They address the particular and the subjective and not the general and the objective. Serres compared the knowledge included in each of the two cultures to a circle with one focal point (science or humanities), with the two circles lacking any interrelations. They have no common denominator, and thus are incommensurable to each other.

The modern idea of progress is based on the priority of the scientific worldview. The primitive magical world of myths or the imaginative world of poetry and the fine arts cannot be valid sources of respectable knowledge. But Serres claims that both circles of knowledge are vital because both incorporate important insights about humans and their world.

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[1]For the idea of the *rhizome* and its application to education see: (Back & Mansur, 2016; Cormier, 2008; Gorodezki & Barak, 2016; Semetsky, 2008). We prefer to use the mesh network concept because it is part of a larger typological theory which can refer to processes such as star and bus type learning (see Chap. 3). The rhizome, which is a biological phenomenon (e.g., grass), is a more limited metaphor since it is impossible that every node in the rhizome will be connected to any other.

For Serres ((1980, 1997, 2016); Serres and Latour (1995)), the divide between the two cultures is erroneous and dangerous. It is erroneous because science is not that rational, while art and humanities do have rational elements. It is dangerous because it leaves us with no appropriate tools to deal with evil, suffering, and the moral malaises that arise from our developing technology.

When human actions are evaluated only in terms of their scientific and technological utility, we tend to disregard their moral impact. The sharp demarcations between facts and values, descriptive and normative discourses, or between reason and emotion lead to human misery being ignored by the social and behavioral sciences. They completely overlook the notion of evil because their scientific pretence hinders them from hearing the human voice which is singular and local.

Serres (1997, 2000) claims that classical science is based upon wrong premises. Throughout history, humans embraced a deterministic and mechanistic worldview and searched for laws of nature that could predict phenomena and help them dominate the world. These laws of nature were supposed to be empirically verifiable, universal generalizations, which are absolute and objective. However, this ideal proved to be wrong for it is obvious in our days of quantum and chaos theories that a deterministic physics does not fit the facts. It represents the macro-world of solid objects but not the micro-world nor the world of the liquid and gas (Serres, 1975, 2000; Serres & Latour, 1995). It cannot capture the turbulent movements of water, fire, or air.

Relying on the ancient atomistic theory of Epicurus and Lucretius (in his *De Rerum Natura*), Serres (2000) shows the possibility of having a different type of physical theory, constructed like a mesh network (2000, p. 50), which is accurate, data-based, and indeterministic. Today, he says, such a theory is both justified and legitimate.

Criticizing science's presuppositions has revolutionary effects. First, it shows that classical science is based upon an irrational belief in the possibility of having a deterministic type of laws (Serres, 2000). Clearly, such a belief is just a myth. Second, it makes us much humbler and more hesitant. It leaves room for exceptions and allows diverse approaches to reality.

This view has immense moral implications. The theories that dominated physics until the beginning of the twentieth century concentrated on an absolute principle of order, and necessarily involved coercion, violence, and death. According to Serres, modern science is forceful and violent because it enforces order upon chaos and therefore subordinates the world to the tree-type model of thinking which ignores its being a multiplicity. It is this kind of science that creates an overly simplistic image of the world and it dangerously threatens those who dare to think otherwise (2000, p. 22, p. 109).

However, changing science is not enough, because, in principle, science provides us with only partial knowledge about ourselves and the world. As individual human beings, each of us is unique. Each human being experiences pleasure, happiness, pain, and suffering. Humans wish to fulfill themselves, to have a meaningful life, to have a sense of identity and wellbeing. Dealing with a general, universal world, science is indifferent to these personal wishes. It cannot help the individual to cope with them. As Serres says, "Neither the global nor the universal suffer… Thrown

under, the subject undergoes. Here finally is why he bears that name. Whence two cogitos. We think and know. I Suffer" (Serres, 1997, 70).

Humanities, the arts, or mythical legends convey knowledge which can help us deal with the problem of evil. For even if the problem is universal, its manifestations are local and particular. They can be learned from history and myths, from poems and narratives, and from fables and folktales. Through them we learn how to face the fact that each of us is mortal and have to find the meaning of his life. There is a paradox in this type of knowledge. The more it is subjective, local and particular, the more it reveals the general secrets of humanity. The great novels (e.g., *War and peace, The Brothers Karamazov*, or *Moby Dick*) show that it is possible to learn about human friendship, love, or jealousy from the plot and the heroes with whom the reader is acquainted.

The split between the two cultures is morally dangerous. It makes science's value neutral and literature and myth irrational and old fashioned. There is no more room for "poetic justice" (Nussbaum, 1995), because only measurable data have any social worth. The wisdom of the past is completely ignored, as well as the individual's past experiences, and this impedes our moral considerations. The price is enormous. Science and technology, free from moral considerations, enable catastrophes like Hiroshima or the Holocaust.

But, for sure, it is impossible to return to a pre-techno-scientific world, in which the human being was captive of irrational, magical beliefs, and forces. Hence, Serres (1997) advances a *third* type of knowledge, which will not down-value any of the two cultures, and he elaborates a kind of a unified form of knowledge. Instead of viewing our body of legitimate knowledge as a circle which has one focal point in the middle, he suggests that human knowledge can be compared to an ellipse with two focal points, one of science and the second of humanistic sources. In the middle, on the line connecting the two focal points, is the agent, the third, who combines the two types of knowledge.

The new organization of knowledge means that we put side-by-side all sources of knowledge, and, as in a mesh-type network, we try to find connections among all of them. We have to look at our world anew, in a way that resembles what the mathematicians call the "baker transformation" (Serres, 1991, pp. 80–84), a certain folding of half a plane of dough over the other half, repeated indefinitely according to a simple rule.

This transformation changes the spatial relations between things: points which seem to be far away from each other become close and vice versa. A similar transformation occurs if we look at points in time. As a result, everything can be related to everything, and the results are inspiring. Based on chaos theory, both notions of time and space should be regarded as fragmented rather than linear, wrinkled rather than flat.

This will enable us to see the relevance of different events to our own, and to mingle various types of knowledge into an inspiring new worldview. Science and humanities are not two entirely separated sources of knowledge with no relation between them. Rather, they constitute a system in which there are mutual relations between these focal points that change one another.

Consequently, "…a scholar has no right to that title unless, …she stops explaining everything from her discipline's point of view but admires other disciplines… and learns from them" (Serres, 1997S, p. 9).

For example, in books like *Genesis* (1995G) and *Parasite* (1982P), Serres builds a sociological theory that uses scientific sources as well as myths, fables, and novels. Similarly, he links between legends taken from Greek mythology, fables of La Fontaine, novels (written by Balzac, Zola, Verne, Mallarme and others), old physical theories (Lucretius atomistic theory), and new ones (e.g., Information theory or Chaos theory), trying to find scientific and moral insights relevant to our time.

Only such free movement furnishes humanity with novel and creative ways of coping with current moral problems. Only such wandering in our mesh networked world can help us deal with the moral questions of human evil, since it exposes all the sources of knowledge which might be relevant to their solutions.

## *Education*

The current academic curriculum clearly reflects the problematic "two cultures" attitude. As Schwarz and Glassner (2003) note, one of its results is that students do not know how to link natural arguments to personal knowledge and beliefs, and they tend to take scientific arguments as true rather than to challenge them.

According to Serres we need "to invent a third curriculum which will weave the warp of the rediscovered humanities to the woof of expert exactitude" (Serres & Latour, 1995, p. 194). Hence, he calls for a revolutionary curriculum which will be a mixture of all sources of human knowledge.

Teaching should aim to broaden the curriculum rather than restrict it to predefined subject domains. The curriculum should present us with the moral problems that are raised by any domain-specific content and discuss their implications on the students' present and future life.

Learning is wandering in the mesh networked world. Knowledge creation is casual and fragmentary. There are no precedents which have to be immitated, no paradigms that have to be observed, and no necessary truths that must be learned. Knowledge is not necessarily tied to a certain place and time. There is no predefined rule of how to move from one node to another.

Sociologist Zygmunt Bauman puts forward a similar idea. The "liquid person", who lives in the postmodern era, replaces his desire to be grounded (to his culture, language, society, etc.) with the wish to raise an anchor (Bauman, 2008, p. 20). Instead of settling in one place he desires to wander. Like a sailor he cruises from place to place, stopping in a harbor, dropping an anchor, staying there for a while, gathering knowledge, and relocating to another destination.

## Wandering

Similar to the process of *Bildung* discussed in Chap. 2, Serres believes that wandering is not only for gathering knowledge. It is also intended to form the student's identity, while the educator is an individual, who escorts the learner in his journey throughout the network (like the Greek pedagogue).

The wanderer carries bad reputation. He has been considered an idle and a nuisance to society. In many countries, idleness was outlawed. More favorably, Rousseau (1772 [1979]) tells about his own *Reveries of a Solitary Walker* (*promeneur*) which enables him to think about society, education, and so on. For Pirsig (1974), a motorcycle journey has the same effect. For Henry David Thoreau, *walking* (1914 [1862]) is a self-reflective process that allows you to learn about who you are and find some aspects of yourself that have been chipped away by society.

Baudelaire (2010 [1863]) describes the wanderer (*le flâneur*) who walks in Paris's alleys trying to experience the city, with no predefined aim or visible cause. Benjamin (1939 [1999]) follows the *flâneur* in the city's arcades, and Hodgekinson (2004), in his *How to be idle*, devotes a chapter to comparing between the positive sides of the idle and those of the rambler.

For these authors, to wander means to be in a certain mood, in which the wanderer experiences meaningful insights about himself and the physical and social world he lives in. Unlike the tourist, who is always in a hurry, seeking famous attractions or well-known sites, clinging to the recommendations of the guiding tour-book, the *flâneur* finds himself in neglected, forgotten sideways. He feels that he has all the time in the world. "He takes on the features of the werewolf restlessly roaming a social wilderness" (Benjamin, 1939 [1999], p. 418).

Serres has different characteristics of the wanderer in mind. His journey is not the walk of a hiker who seeks mystical or challenging experiences; nor is he taking a timeout to contemplate, organize his thoughts, or plan a piece of art. He is not a hero of a detective inquiry (Benjamin, 1939 [1999], p. 96). He is not the person who is outside his house but feels at home everywhere (Baudelaire, 2010), and he does not "…set foot in the marketplace-ostensibly to look around, but in truth to find a buyer" (Benjamin, 1939 [1999], p. 10).

Serres' point of view is not aesthetical but ethical. Unlike the romantic walker who desires becoming part of nature, or the modern wanderer who is swallowed in the crowd of the big city, Serres' walker wanders all over the world, the real and the virtual, in the present and in the past one, in order to know everything that will make it a better world.

The wanderer is not an anonymous person who watches the crowd but somebody who swims against the current: "Restless, in order to go everywhere, throughout the entire encyclopedia—what an undertaking! Restless—in other words, active, not lazy. Unsystematic, in order to criticize outdated systems" (Serres & Latour, 1995, p. 117).

It is of no wonder that the figure of Hermes, the Greek idol, plays a major role in Serres' philosophy (Serres, 2016). Hermes is the messenger of the Olympian gods.

He is the God of communication, of trade, heraldry, merchants, commerce, roads, sports, travelers, athletes, and thieves. Most of all, he is the patron of education. "Formerly, the slave who took the noble child to school was called a pedagogue. Hermes also went along, sometimes, as a guide" (Serres, 1997, p. 48).

Hermes always moves. He connects, disconnects, and reconnects the endless variety of places he traverses. He travels across time and space, making unexpected connections between seemingly disparate objects and events, tying mesh networks.

## *Caveats and Questions*

The "learning as wandering" idea raises many objections. The first is that the learning becomes too casual. It seems that there are certain disciplines, such as mathematics or physics, which are very structured, and their learning requires a tree structure (cf., Schwab, 1978).

If the learning process does not follow the structure of the discipline, the student might not understand its "basics". He might not comprehend what is going on and miss important pieces of knowledge. If the teacher has to structure the process, the whole learning journey cannot be self-determined.

Another perplexing issue concerns the "depth" of what is learned. A mesh wandering might yield a relatively shallow encounter with texts, websites, and databases, without requiring deeper learning or some level of expertise.

A similar charge is that learning through wandering augments illiteracy. It is unreasonable to expect that casual wandering, with no substantial directives from a teacher, will cause the students to learn significant cultural works or important scientific theories. Such encounters need planning and thoughtful activities on behalf of the teachers. They cannot remain "open" to the students' initiatives.

And finally, even if the very idea of wandering is sound, it is impossible to wander without having a certain knowledge base to begin with. One cannot learn much from free wandering, which might be too casual and meaningless without clues as to what there is in the network and what its significance is. This is especially problematic in the information age when every Google search yields millions of results. Even if the journey is accompanied by a teacher, some foundations should be systematically given to the student.

These are perplexing objections, and we shall return to them when we discuss the various cases in Chap. 14. However, they all presuppose the bus or the tree-type network. Changing the paradigm of what constitutes knowledge enables us to reconsider the validity of these objections. But one warning should be given right now. We do not claim that all of the learning is wandering. This will bring us to an either/or futile dichotomy. Learning is a complex activity. In each case the teacher has to consider how to apply heutagogy in the certain context he teaches.

One caveat, however, should be addressed. Can wandering lead to deep learning? If the idea of deep learning is the conventional concept "that it develops deeper understanding of the structure of the problem and the solution strategies, and leads

to transferable knowledge" (Guerriero, 2017; cf. Pellegrino & Hilton, 2012), the answer is not a straightforward one. For Serres, it means weaving an unusual net of connections, surprising links between remote nodes, or focusing, in a star network movement, on some issue which interests the learner (including know thyself). It should lead to invention, and not to a mere transfer.

However, wandering and gathering information does not mean that the wanderer understands everything he encounters. Serres explicitly argues against the conventional learning theories, which connect knowledge with understanding. He argues that their line of reasoning is flawed. The accepted learning theories, being objectivist, constructivist, cognitive, or socio-cultural, presuppose "the dogma that one cannot learn what one does not understand, a clear comprehension of what is taught…" (Serres, 2011, 65).

But, by this line of reasoning, we wouldn't know very much, because, "we learn immensely more things than those we master, and understand poorly those that are explained to us just as poorly… taking, learning, understanding is the order knowledge acquisition" (ibid, 65–66).

Serres notes that in French, the three related words (*prendre* [taking], *apprendre* [learning] and *comprendre* [understanding]) have a common root. For him, nothing can be understood before it is learned by the body, basically in terms of receiving, imitating, and remembering. And once learning does not necessarily presuppose cognition, bodily and emotional experiences are essential to any learning process. As Serres stresses, "there is nothing in knowledge which has not been first in the entire body, whose gestural metamorphoses, mobile postures, very evolution imitate all that surrounds it" (Serres, 2011, p. 61).

## *Wandering, Self-identity, and Education*

In addition to the two focal points of the ellipse of knowledge, the ellipse has a center, a third point in which the individual is located. In Serres' words: "In knowledge and instruction, a third place also exists, a worthless position today between two others: on the one hand, the hard sciences…; on the other hand, what one calls culture, dying". Within these poles arises" …the third-instructed, who emerges today, becomes something and grows…" (Serres, 1997, p. 45).

This third place is not a mere mixture or fusion of the ellipse's two poles. It is the location where the individual addresses all available sources of knowledge to answer the question "who am I as a unique person and as a human being?" To meaningfully ask this question, the individual must be ready to leave the safe shores of his usual habitus and to delve into a self-identity quest.

Wandering, as Serres stresses, begins somewhere. There must be a shore from where to embark. The journey requires the explorer to be curious and brave. The explorer has to split up, since part of him always remains in the initial point of the journey, while another part should be ready to forget everything he is accustomed to. Such a quest is a kind of exile, since the voyager will be thrown forever from his

familiar territory. Any departure requires the voyager to pave his own way. It is of no use to look at known or previously traveled areas. This is a typical *Bildung* process (see Chap. 2).

Serres' voyager has no predetermined aim, nor predefined path, but his wandering leads to a change in his identity. This change happens suddenly, when during the voyage, the rambler discovers a "third" point, which is in-between the starting and the ending points of his journey. At this point something happens which changes the rambler's identity.

For Serres, the gateway to this transformation is through a *third* place. Physical or mental, real or virtual, the exact location of this third place is not predetermined. It appears suddenly, in the midst of the voyage, and resembles a center of a turbulence, or a hub of a star network. The *third* place, however, is not a stable point. It is always in motion, in a state of flux. To remain in it, the individual has to continuously move in all directions, sensitive to any incentive, ready for any stimulus.

The French word *milieu* (middle) tells the whole story. The third place is both a tiny place (mi-lieu = half place) and the entire cosmos (Serres, 1997, p. 43). When the individual centers upon something very small, he might also absorb the whole world.

The *third* incorporates an important notion of the "other". Usually, the law of the excluded middle ("I am not you") prevents one from growing and expanding. But when crossing the gateway, the binary dichotomies break down, and the other (person, place, and object) becomes part of one's identity. Thus, it enlarges and expands the self, making it inclusive and incorporating. The whole idea of acceptance depends on such inclusion. It makes the individual open and tolerant, therefore it is the sole remedy to the problem of evil and suffering.

Serres stresses that there is no learning without genuine exposure to the "other". "I will never again know what I am, where I am, where I'm from, where I'm going, through where to pass. I am exposed to others, to foreign things" (Serres, 1997, p. 8). Such an exposure can be dangerous for the traveler's self-identity, "For there is no learning without exposure, often dangerous, to the other" (Serres, 1997, p. 8).

Meeting the other expands the self. He absorbs the other into himself and thus, incorporates him into his own personality, enlarging his own worldview. This involves a personal transformation whose form is unpredictable and mysterious. Thus, the third emerges as an ontological notion. The expanded self, which includes the other as a component, becomes a *third* person, whose identity is vibrant and growing without forgetting the shore he embarked from (i.e., his original identity).

If this personal journey is the genuine process of education, then the role of the teacher changes. According to Serres, pedagogy, as an accompanying journey, involves more than a student and a destination predefined by the teacher. The "game of pedagogy" also involves the third place "as the threshold of passage. And, most often, neither the student nor the initiator knows where this door is located nor what to do with it" (Serres, 1997, p. 9).

This third place is an unintended place which might change its planned destination. To learn is to traverse this passage. It is the ability to throw yourself in all directions, like a sun whose rays explore the entire universe.

## Heutagogy

It is now possible to see that Serres' ideas justify the basic principles of heutagogy listed in Hase (2014, p. 13, 2016; see above Chaps. 1 and 5). While Hase's design principles are important "know how" recommendations, they focus on the practical realm. This might make heutagogy just another method of teaching and learning.

As we have seen (Chap. 1), for Blaschke (2018) there are four principles of heutagogy: learner agency, self-efficacy and capability, reflection and metacognition, and nonlinear learning. These principles do not address a more basic level, which is concerned with the nature of knowledge (tying connections), its organization as a mesh network and not as a tree.

For us, heutagogy is mainly a philosophy of education, so it is possible to see what we miss in Blaschke and Kenyon's list. Following Serres, we suggest that in heutagogy:

- Knowledge is arranged in a mesh-type network. Learning is wandering in this network. Learning is tying all possible kinds of connections between all available pieces of knowledge regardless of their origin or specific domain. For the students, it is an accompanying journey in the immense ocean of knowledge or in the sea of a specific domain or topic.
- Learning is a dialogue between the student and the teacher, who follows him in the journey, and between the student and the ocean of knowledge he encounters on his way to revealing the "third".
- Learning is meaningful (or deep) for the learner, who makes surprising links between the network nodes.
- Learning is for its own sake. It might, of course, have instrumental ends, but if there is no bearings/influence on the personality of the learner, it is less meaningful for him (cf. Masschelein & Simons, 2013).
- Learning has an essential ethical aspect. Knowledge should lead to a better and repaired world or society. It should promote freedom, democracy, and tolerance toward others.

However, heutagogy for us is not a "take it or leave it" package. It represents an extreme pole in the optional teaching and learning strategies. As we shall see, it is possible, for various practical reasons, to adopt only some of its principles. In any case, applying heutagogy is preferable to using the pedagogical paradigm of teaching and learning.

## Summary

This chapter presented our philosophy of heutagogy. We did not enter into a critical discussion of this philosophy. We adopt it because it provides a suitable framework for education in our chaotic and fluctuating world. The image of the world as a

network fits well into the way we experience the world. The idea of "third" as a logical possibility, as an epistemological alternative to the common two cultural traditions, and as an enlargement of the self to incorporate the "other", seems to us a fruitful contribution to today's confused educational standpoint. It may help to make a better world.

Therefore, in the following chapters we presuppose the notion of the third. We shall ask how it can be manifested in higher education settings, how it changes the roles of the teachers and the students, and how it bears on the idea of the preplanned curriculum and syllabi. It should be stressed again that we do not advocate an "all or nothing" approach to heutagogy. Using even some of its characteristics can be beneficial to the students' learning process.

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# Chapter 7
# Pioneers of Heutagogy




**Abstract** This chapter presents three examples of heutagogy pioneers. The first is an ancient example of the *Talmud* way of learning. The second is the story of Joseph Jacotot, a university lecturer from the nineteenth century. The third is of Ivan Illich and his idea of webs of learning.

## The *Talmud* and the *Havruta*

### *General Background*

The *Talmud* ["teaching and learning" in Hebrew] book is the centerpiece of ancient Jewish thought (Bacher, 1906; Steinsaltz, 2014). In our context, the *Talmud* is of special interest because the ways its content is organized and the methods its knowledge is created and learned provide a fascinating example of heutagogy. The whole book is structured as a mesh-type network (see Chap. 3) which encourages wandering, and one of its main learning methods, called *Havruta* ["friendship" in Aramaic], has many of the characteristics of heutagogy (see Back, 2016).

The *Talmud* is the primary source of Jewish religious law ("*halakha*" in Hebrew). Besides the *halakha* the Talmud contains two other literary genres: *agada* (Hebrew: legend) and *midrash* (Hebrew: "seek with care, enquire"), which is usually a philological rabbinic interpretation of a specific biblical sentence. In the *Talmud*, the three genres intermingle. Learning the *Talmud* has an essential ethical aspect. Knowledge of the *halakha* should lead to more religiously inspired life, according to the laws prescribed by God.

The *Talmud* is an edited corpus which has two versions, *Jerusalem* and *Babylonian*, according to the site of their editors. Each of the versions is composed of two layers: an older part, common to both versions, which is called *Mishna* [literally, "that which is memorized by rote" in Hebrew, but it also means "to study"] (edited around the year 200 CE), and a newer part, different in each of the versions, called *Gemara* ["what has been learned" in Aramaic (Bacher, 1906)]. The *Jerusalem Talmud* was edited around 350–400 CE. The more prevalent *Babylonian Talmud* was edited circa 500 CE.

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The *Mishna* is the main postbiblical written collection and codification of the *halakha*. The book is divided into six parts (called "orders"), each devoted to a certain legal domain such as holy days, marriage, or criminal laws. Each part is divided into "tractates" (63 in total); each tractate further divides into chapters, and each chapter consists of small paragraphs, each of which is called *mishna* (with lowercase "m") or *myshnaya*.

The *Gemara* is an interpretation and exploration of the *Mishna*. It follows the *Mishna, mishnaya* by *myshnaya*, and discusses its meaning and the law it prescribes, and it also presents edited protocols of the debates related to their articulation. The *Gemara* also includes stories of the Rabbis' life and sayings, and it deals with a variety of topics, such as philosophy, lore, ethics, customs, sciences, medicine, psychology, and history.

In the standard printed edition (1880–1886) the *Babylonian Talmud* comprises 2711 double-sized folio pages, although it expounds only 37 of the *Mishna*'s tractates.

## *The Talmud as a Mesh Network*

***Masekhet*: The Hebrew word for "tractate"**

The Hebrew word *masekhet* (in English "tractate") has two meanings. Its origin is in the biblical story of Samson, who says to Delilah, "If thou weavest the seven locks of my head with the web" (Judges, 16, 13). The English "web" translates the Hebrew *masekhet*. Thus, the Hebrew meaning of the word is a framework of warp and weft used in weaving. It also refers to an in-depth discussion in the sections of the Talmud, which are like warp and weft of the sages' sayings. Both the whole book (*Mishna*) and each of its small sections (*mishna*) are seen as a work of weaving in which one makes a quilt or a patchwork, sewing together pieces of fabric often to form a design. This connection between weaving and networked knowledge is also reflected, as we have seen, in Serres' philosophy.

## *The Talmud Page Layout*

Since its first printed publication in 1520, the *Babylonian Talmud* has a special page layout. Each of its pages is graphically divided into several parts. It has a centre encircled by two layers of texts. In the centre, printed in regular Hebrew font is the text of the *mishnaya* followed by the relevant *gemara*. The second layer contains two major medieval commentaries written in a different font. Each page has a third level, printed in various smaller fonts, containing interpretations, comments, and bibliographical references to other parts of the corpus and to earlier scriptures, such as the Bible (see Segal, 1995, for an annotated presentation of the *Talmud* page layout).

Reading a *Talmud* page is not a linear activity. It is similar to navigating in a star network, in which the hub is the original *mishnaya* or *gemara*, and the reader goes back and forth from the centre of the page to the enveloping layers, to learn the text's various interpretations and comments which, by themselves, can refer to each other or to previous religious texts.

The page layout reflects its content, as the *gemara* itself is an interpretation of the *Mishna*. Each section of the *gemara* is subdivided into issues (Hebrew: *sougyot*), each of them presenting a discussion of a certain phrase of the *mishnaya*. The discussion usually consists of what the sages say about the *myshanaya's* exact rationale, meaning, or significance. Usually, the sages try to resolve contradictions within the *Mishna*, to understand the reasons or sources for a certain *halakha*, to decide between competing possibilities of its articulations, or to point to some difficulties in its implementation.

What makes the discussion a mesh networked one is the requirement that any statement of a discussant be justified by the sage who pronounces it, by referring to previous canonical texts or to previous sages' oral statements. In these discussions, the scholar might cite from, or refer to, the whole ocean of Jewish oral and written wisdom. Though it is forbidden to openly oppose an idea of biblical or *mishnaic* origin, the scholar may interpret it as he likes by telling a *midrash* about its phrasing. He may also illustrate his point by recounting a legend related to it.

In this way, every previous oral or written saying, no matter when and where it was pronounced or in which of the holy books it appeared, can become relevant to the discussion through its citation or reinterpretation.

Habitually, the *Gemara* discussion proceeds to dealing with the suggested justifications themselves. Thus, it contains many side issues, which might be debated as well. For example, the first *mishnaya* is relatively short (14 lines), but the related *gemara* covers nine double folio pages, dealing with many *sougyot*.

Among its topics are legends about King David, the prophet Elijah, and famous *Mishnaic* Rabbis, and deliberations about the parts of the day, the benefits of learning, demons and ghosts, the blessing of sufferings caused by love (of God), the importance of praying in a synagogue, the Exodus of Egypt, and many other items, including many *midrash* commentaries.

The edited text retains the oral character of the original discussions of the sages. There is no one rule dictating the flow of the conversation, although the sages adhere to a few regularities (like trying to find similarities, or following the anti-logos method, in which the sage tries to identify weaknesses and even contradictions in the other views) (Glassner & Schwarz, 2005). The sages freely move from one issue to another, for example, because something reminds them of something else, or because talking about a given item is similar to a discussion that appeared elsewhere, and so on. Sometimes, just mentioning a Rabbi's name is a trigger to reciting stories and sayings related to him. These, in themselves, provoke further conversation, with no direct connection to the main *suggiya*.

Another characteristic of the mesh network topology of the *Talmud* reveals itself in its very first sentence, which begins with the question: "From when may we [fulfil the obligation to] recite the Shema in the evenings" (*Babylonian Talmud*: Berachos,

Schottenstein edition 1990, p. 2a). Surprisingly enough for a contemporary reader, the corpus has no introduction. No explanation is given of its aim, content, structure, or ordering principles. There are no recommendations as to how to read the book. In fact, the reader has to jump into the midst of a certain discussion. (This lacuna has been filled by many later scholars, see for example, Steinsaltz, 2014).

This strategy applies to any of the *Talmud*'s parts. Thus, in its first *mishnaya,* no prior explanation is given about the prayer of *Shema*: its purpose or meaning, its content or the reason it should be recited in the evening. Although the whole tractate concerns various prayers and blessings, the entry point to the discussion does not include a general overview of these issues but deals with one particular practice.

This is an unusual opening to a book which is essentially a corpus of laws. Indeed, years after the *Talmud*, the book *Mishneh Torah* [Repetition of the *Torah*], written by Maimonides (Rabbi Moshe Ben Maimon) around 1180, presents the Jewish *halakha* in a tree-type structure. In Maimonides's book, a chapter on the reading of *Shema* appears only in the second sub-book and in a relatively remote paragraph {*Ahavah* [Love (of God)], Chap. 1, paragraph 9}. Probably Maimonides thinks that this particular *halakha* does not have such importance as to open the whole corpus of Jewish law.

However, Serres, to remind us, says that nothing can be understood before it is learned by the body, basically in terms of receiving, imitating, and remembering (Serres, 2011, p. 61). As we've seen, the daily life of every Jew is enclosed between two *Shema* readings. Every Jewish toddler learns to recite Shema, twice a day, from his parents, literally from his birth. So, it is really learned by his body,[1] and the *Talmud* begins by discussing the explanation of this, exercised by everybody, Mitzva.

Consequently, it is intriguing to imagine a current example of a secular "learning by the body", which will also capture a less fascinating facet of the idea of wandering. People become addicted to their screens (Aiken, 2016). They even seem to be preying to their screens couples time a day (Serres, 2019). From day one, they see their parents using their iPhone and iPads and watching TV. They want them, too, and get them, to make them busy. When they grow up, they wake up checking the screen to see what happens in their social networks, while they were absent and to wander to various sites. They are going to sleep checking the screen to see what happens in their social networks and to wander to various sites.

What exactly do they learn "by their body"? Do we see here the emergence of a new fetish? Should it be incorporated into a new way of conduct? And for our concerns: when does the screen promote or hinder genuine learning? These questions, however, will not be addressed in the present book.

This beginning of the *Talmud* with a particular case indicates that it is possible to start learning this vast corpus at random. There is no privileged entry point to the text, nor there is hierarchy of importance to its sayings. There is no "required knowledge" to begin with, although the discussion presupposes that the participants know what they are talking about (for example, that they already know what the *Shema* is.) The

[1] We owe this insight to the anonymous reviewer of the book.

specific starting point of the learning process is casual and negligible. This strategy also suggests that every page in the *Talmud* has the same religious importance.

Looking at the text from a heutagogic perspective suggests the following:

- The *Talmud* displays the Rabbis' wandering journeys. They tie all kinds of connections between all available pieces of knowledge, regardless of their origin, literary genre, or specific subject matter.
- The *Talmud* presents a continuing dialogue between the participants in the discussions, between them and their precursors, and between them and other texts across time and place.
- The discussion usually proceeds by moving in mesh-type structures, making surprising links between the network's nodes, and going back, in a star-type structure, to deepen the learner's understanding of the *sugyia* in question.
- Learning the *Talmud* is for its own sake (*leshem Shamayeem*, i.e., for the sake of heaven in Hebrew, which means for a purely spiritual or altruistic purpose). It represents the strive to find the "true" *halaka* in every case. The same ambition is shared by the participants in the discussion and its learners, and it makes the learning meaningful.

Because the structure of the *Talmud* and its page layout seem like a mesh network, dotted by star network instances, it provides a suitable platform for heutagogy (see Back, 2016). Learning the *Talmud* is a process in which the learner becomes a participant in an on-going conversation with the text and with his fellow learners.

## *Learning the* Talmud

The *Mishna* and the *Talmud* place the debate in the centre of the struggle to understand the *halakha*. The *Mishna* rabbis do not attempt to reach a consensus. Each of them wants to codify the correct *halakha*. The Rabbis differ in their opinions, and their opposed beliefs are reflected in every *mishnaya*. The *Mishna* presents these disagreements, and the *Talmud* follows the same approach. It comprises endless disputes and heated controversies.

Thus, for example, the answer to the *Talmud*'s first question ("From when does one recite *Shema* in the evening?") is given with the reply "from the time that the priests enter [their houses] in order to eat the heave offering" (Soncino Hebrew/English Babylonian Talmud: Brachoth, 1990, p. 2a). Thereafter the text moves on to presenting a debate: "until the end of the first watch; these are the words of Rabbi Eliezer. But sages say: until midnight. Rabbi Gamaliel says: until the dawn comes up", and the last opinion is demonstrated by a story which exemplifies Rabbi Gamliel's view (Soncino Hebrew/English Babylonian Talmud: Brachoth, 1990, p. 2a). Each of these views is taken by the *gemara* for further clarification. For example, the seemingly

simple saying about the time that the priests enter [their houses] has at least six different interpretations as to the exact time in which this happens.

Since the times of the *Mishna*, this kind of deliberation has continued to be the essence of the *Talmud* learning processes, as each learner/interpreter attempts to offer the proper understanding of the text, amidst or in addition to other suggested views. Learning the *Talmud* requires each reader to devise another layer of understanding and add his own original ideas to the text and its interpretations. This is an on-going, open-ended endeavor. The learning itself contributes new innovative ideas to the discussion.

## *The* Havruta

An important method of facilitating the *Talmud* learning is called *havruta* (in Aramaic: friendship or companionship). The term refers to a pair of students who study together. In a large room, they sit face-to-face, studying a text. The learners read an assigned text together, explain it to each other, and argue about what is the text meaning. "They are conducting conversations with texts and with their learning partner" (Holtzer & Kent, 2011, p. 407).

The term *Havruta* captures two simultaneous learning activities: the study of a text and collaborative learning with a partner. Kent emphasizes that "for meaning making to occur, there must be interaction not only between the people but also between each and both of them and the text" (Kent, 2010).

As Holtzer and Kent observe, "… *Havruta* learning often entails an open-ended inquiry of two learners into an assigned texts. The learners generally have no more specific task than to study these texts together" (Holtzer & Kent, 2011, p. 409). *Havruta* enhances two main capacities of the learners: interpreting a text and working with someone else independent of a teacher's direct guidance. The relationship between members of the *Havruta* is an ethical aspect of mutual responsibility. They are responsible for the learning of both.

One of the advantages of *Havruta* learning is that the members of the study possess different skills and therefore experience "joining together of each other's strengths" (Katz & Schwartz, 1997, p. 317). Clearly, the "*Havruta* offers learners opportunities to foster interpretive, social and ethical engagement and thus has great potential for a range of people in different contexts with different learning goals…" (Kent, 2010, p. 215).

In her research, Kent finds that three main activities characterized the learning process: "(1) listening and articulating; (2) wondering and focusing; and (3) supporting [each other's ideas] and challenging [them]" (Kent, 2010).

Hence, it is a heutagogic process in which the learners themselves decide what to learn from a given *Talmud* page. In the same large room, each pair of students can study different aspects of the page. They decide who to study with (their *Havruta*

partner), the pace of their learning, and how to self-evaluate it (although there is also an external criterion of being an excellent student who knows a large number of pages).

One of the goals of the *Havruta* model was to gradually diminish the students' need for a teacher when studying *Talmud*. Students, she explains, "are empowered to direct their own learning; to establish the community as their teacher; and to delimit the power of any single leader" (Blumental, 2012, p. 21). (This is evidenced in the saying "incline after many" Babylonian Talmud: Tractate Sanhedrin p. 3a), meaning that after God gave us the law, decisions are made through the rule—we follow the majority, and not a privileged power.)

Nevertheless, in formal settings, learning the *Talmud* is often facilitated by a teacher (the Rabbi) who is always present during *Havruta* study for questions and clarifications. The Rabbi is familiar with the whole *Talmud* and helps the *Havruta* understand general concepts, ideas, and approaches as they apply to the text (Katz & Schwartz, 1997, p. 315). Moreover, being a lifelong learner himself, the Rabbi may also "help students learn the subtle aspects of dialogue with *Havruta* partner and text" (Holzer & Kent, 2013, p. 182).

The *Havruta* way of learning clearly demonstrates heutagogic principles and practices. It is traditionally applied to text interpretation and presupposes a hermeneutical learning method (Holzer & Kent, 2013). Though limited in scope, it still indicates the potential force of self-determined learning.

## Teaching French: Josef Jacotot

Josef Jacotot, a nineteenth century lecturer of French literature in the University of Louvain, taught many subjects in addition to French literature, such as analysis, ideology, ancient languages, pure mathematics, transcendent mathematics, and law (see Ranciere, 1991, pp. 2–3). In 1818, he was invited to teach French to university students whose language, Flemish, he did not speak. There was no common language in which he could teach them, yet he wanted to respond to their wish to learn. To do so, he used a bilingual (French and Flemish) edition of the book *Télémaque* which "recounts the peregrinations of Telemachus, accompanied by his spiritual guide, Mentor, as he attempts to find his father, Odysseus" (Ranciere, 1991, p. 2). He provided the students with the book and "asked them, through an interpreter, to learn the French text with the help of the translation" (p. 2).

Jacotot asked the students to repeat what they had read over and over until they could recite it. Then, he asked them to write, in French, their thoughts about what they had read. He was surprised to discover that "the students, left to themselves, managed this difficult step as well as many French could have done" (p. 2).

This kind of learning can be considered a partial self-determined learning. After all, the students chose to study French, and because of their natural intelligence, they could learn by themselves without the teacher's clarifications and propelled their own desire "or by the constraint of the situation" (Ranciere, 1991, p. 12).

But unlike in heutagogy, Jacotot, as the teacher, decided on the content and the manner (e.g., text and task) of the learning, although the students learned by their own methods and speed. He only gave them "the order to pass through a forest whose openings and clearings he himself had not discovered" (Ranciere, 1991, p. 9), and it appeared that nothing else was necessary.

Until then Jacotot believed, as did all his colleagues, that the role of the teacher/professor is "to transmit his knowledge to his students so as to bring them, by degrees, to his own level of expertise" (p. 2). For them the social aim of education was to prepare the students to take part in the elite communities and especially in scientific communities, where "one must first acquire a solid and methodical foundation before the singularities of genius could take flight" (Ranciere, 1991, p. 3). As we have seen, this kind of learning–teaching conception still dominates most of the current educational systems.

## *What More Can Be Learned from Jacotot? Understanding Without Teacher Clarifications*

Ranciere argues that "the words the child learns best… are those he learns without a master explicator, well before any master explicator" (Ranciere, 1991, p. 4). Jacotot's students learned French as a second language, and even though it is different from learning a mother tongue, they used and developed their intelligence to observe, retain, repeat, and verify "by relating what they were trying to know to what they already knew, by doing and reflecting about what they had done" (Ranciere, 1991, p. 10).

Following the above insight, Ranciere asks whether understanding is what the child cannot do without the explanations of a teacher/master. Analyzing Jacotot's case, he concludes that "explication is not necessary to remedy an incapacity to understand. On the contrary, that very incapacity provides the structuring fiction of the explicative conception of the world" (Ranciere, 1991, p. 5).

The next question arising from Jacotot's case is "what is the role of the teacher in that kind of self-learning?"

## *The Teacher's Role*

Ranciere claims that the students learned without a teacher's clarifications, but not without a teacher. The students "didn't know how before, and now they knew how. Therefore, Jacotot had taught them something. And yet he had communicated nothing to them of his science" (Ranciere, 1991, pp. 12–13).

Similarly, to the lecturer's role in heutagogy, Ranciere argues that Jacotot, "by leaving his intelligence out of the picture, he had allowed their intelligence to grapple

with that of the book" (p. 14). Ranciere insists that Jacotot "had not used any method. The method was purely the student's, and whether one learns French more quickly or less quickly is in itself a matter of little consequence" (p. 14). In heutagogy, the students decide how to learn and what method to use.

It appears that it wasn't Jacotot's knowledge that instructed the students, and then Ranciere remarks that nothing prevented a teacher like Jacotot from "teaching something other than his science, something he didn't know" (p. 14). Indeed, Jacotot began to teach two subjects at which he was notably incompetent: painting and piano, but the University of Louvain, where he taught, "was already worried about this extravagant lecturer" (p. 14). He said to his students, "'I must teach you that I have nothing to teach you…' he taught the students to litigate in Flemish. They litigated very well, but he still didn't know Flemish" (Ranciere, 1991, pp. 14–15).

It seems that "The ignorant person will learn by himself what the master doesn't know if the master believes he can and obliges him to realize his capacity" (Ranciere, 1991, p. 16).

Ranciere assumes that the student himself should be the teacher of himself. He defines self-teaching as a universal method that has "existed since the beginning of the world, alongside all the explicative methods. This teaching, by oneself, has, in reality, been what have formed all great men" (p. 16).

Jacotot's experience is reminiscent of the famous experiment by Mitra (2005) in India, known as "The hole in the wall" experiment. It was conducted in 23 locations in rural India. In each place Mitra and his team constructed a brick wall with a computer embedded in it. The children of each village were invited to wander through the computer software (e.g., internet, computer games, gaming with build-in camera, exercises and puzzles, simulations, video-clips with demonstrations and explanations, etc.), without any directions or instructions, whenever they wished. Focus groups in each location were tested for computer literacy for nine months, revealing that the rural children of different ages learned to use the computers and the internet on their own. Sugata concluded that children's desire to learn, along with their curiosity and peer interaction, motivated them to explore the environment in order to satisfy their inquisitiveness. Such conclusion validates the potential power of self-determined learning to enable children to develop themselves and their emancipation with no connection to their social class.

## Illich's Webs of Learning

In 1970 the personal computer was yet a near possibility, and the WWW had still to be invented. Ivan Illich foresaw how the technology has the power to change the educational system. He wrote *Deschooling Society* to show that the entire educational system is harmful to society because in it "...[T]he pupil is 'schooled' to confuse teaching with learning, grade advancement with education, a diploma with competence, and fluency with the ability to say something new. His imagination is 'schooled' to accept service in place of value" (1970, p. 4). In other words, school

is too successful. It really prepares the pupils to live in a disciplined and coercive society. The only remedy to this malaise is to entirely abolish the system.

Instead, Illich proposed a networked model of education in which he showed that the inverse of school is possible: "we can depend on self-motivated learning instead of employing teachers to bribe or compel the student to find the time and the will to learn; that we can provide the learner with new links to the world instead of continuing to funnel all educational programs through the teacher" (1970, p. 52).

To attain this end, he suggests that learning will be accomplished in four different "webs" which enable the student to gain access to any educational resource which may help him to define and achieve his own goals:

1. Reference services to educational objects—which facilitate access to things or processes used for formal learning.
2. Skill exchanges—which permit persons to list their skills, the conditions under which they are willing to serve as models for others who want to learn these skills…
3. Peer-matching—a communications network which permits persons to describe the learning activity in which they wish to engage, in the hope of finding a partner for the inquiry.
4. Reference services to educators-at-large—who can be listed in a directory giving their self-descriptions… (1970, p. 56).

As Illich stresses "I intend to show that the inverse of school is possible: that we can depend on self-motivated learning instead of employing teachers to bribe or compel the student to find the time and the will to learn; that we can provide the learner with new links to the world instead of continuing to funnel all educational programs through the teacher" (p. 52).

For Illich, changing the educational system is a means to change the society. The free, open, and self-determined student will become the citizen of a free and less coercive society. After almost half decade, we know that he might have been too optimistic, and the web has its own oppressive entrepreneurial forces.

## Conclusion

The three examples presented in this chapter are taken from different times and cultures. They show that the ideas of heutagogy were already exercised in the past in quite diverse contexts. While the examples are different with regard to the aims and methods of learning, still it can be seen that self-determined learning suits them, so they support heutagogy as quite a universal approach.

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# Part II
# The Journey: The Case Studies

# Chapter 8
# Methodology




**Abstract** This part presents the authors' self-study research, which includes five case studies of heutagogy courses in a faculty of education and teacher education programs in a university and a college of education.

Our objectives were to study the differences and the similarities between the cases, as they occurred in different contexts and settings, and to learn about their impact on the students' learning. Our central research questions are the following:

(a) What are the characteristics of heutagogy courses with regards to their different designs (each of us designed his courses independently), their different subject-matter (e.g., ethics in education, cognition and education), and their different settings (e.g., university, college, B.A, B.Ed. M.Ed., M.Teach)?
(b) What are the impacts of these characteristics on the learning experience of the students? How did they affect the students' insights, feelings, skills, and capabilities?
(c) What can we learn from the answers to the above questions on heutagogy in higher education in general, and in teacher education in particular?

Two research methods are used in this study: The collaborative self-study approach (e.g., Louie, Drevdahl, Purdy, & Stackman, 2003) and the multiple case study (Stake, 2006).

## The Collaborative Self-study Methodology

We chose the self-study methodological approach since we wanted to study our own practices and professional developments as lecturers in heutagogy courses. Self-study was defined as "the study of one's self, one's actions, one's ideas…" (Hamilton & Pinnegar, 1998, p. 236). Samaras (2002) defined self-study's aim as "critical examination of one's actions and the context of those actions in order to achieve a more conscious mode of professional activity" (p. xxiv). Hamilton and Pinnegar (2014) described self-study practices more specifically as a "research methodology

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that can be used to explore the practices of teacher educators for their professional development" (Hamilton & Pinnegar, 2014, abstract).

Louie et al. (2003) recommended self-study for all higher-education faculty members who are interested in studying their own teaching practice by inquiry and examination of their beliefs, assumptions, and teaching experiences. Louie et al. (2003), citing Cochran-Smith, emphasize the opportunity of the lecturers to "step outside themselves to gain new perspectives of the teaching act" (Louie et al., 2003, p. 165).

Self-studies usually contain two elements: a reflective and a critical examination of the self's involvement "both in aspects of the study and in the phenomenon under study" (Hamilton & Pinnegar, 1998, p. 240).

Additional characteristics of self-study are described in various chapters of the book: Teaching, Learning, and Enacting of Self-study Methodology (Ritter, Lunenberg, Pithouse-Morgan, Samaras & Vanassche, 2018):

(a) Self-study is an interaction with self and colleagues in an ongoing process whose aim is not just to improve one's practice, but also to inform others of new practices. It is often conducted as collective study with *trusted professional colleagues* that have the role of a *critical friend*, who provides alternative perspectives on the data and its interpretations.

    In self-study, researchers use varying methods like action-research, ethnography, and narrative inquiry.

(b) The data can be collected from many kinds of sources, such as reflection diaries of teachers and/or students, the learning outcomes and products of the students, questionnaires and interviews with individuals and/or focus groups, observations on teaching and learning situations, and discussions among colleagues and students, and other qualitative tools that enhance the credibility of the findings.

Ritter (2018) cites the study by Louie et al. (2003), which lists three benefits to the collaborative aspect of self-study: "its ability to increase social support, to foster a culture of reflectiveness …, and to help researchers avoid solipsism and increase the chances they will create transferable knowledge" (Ritter, 2018, p. 25). Collaborative research also enables the creation of space of shared meaning (Back & Mansur-Shachor, 2016).

We collaborate as a *havruta* (see Chap. 7) of two colleagues who walk together in an ongoing journey of learning and teaching the heutagogy approach. Therefore, we used collaborative self-study, which reflects our shared motivation to invest in our teaching practice in order to improve it through a continuing reflective process.

## The Multiple Case Study Methodology

In addition to the collaborative self-study methodology, and in line with our research goal of studying the heutagogy learning–teaching approach in higher education, we decided to also use the multiple case study methodology (Stake, 2006), in which each course constitutes an independent case.

The multiple case study methodology (Stake, 2006) combines several independent case studies to find similarities and differences in themes and patterns. Its purpose is not to portray a single case, but to synthesize insights from all the cases, organized around key topics (McDonnell, Myfanwy, & Read, 2000). The use of multiple cases enables the researcher to notice more generalizations than suggested by a single case study (Ellram, 1996). The evidence from multiple cases can be considered more compelling, and therefore the overall study is regarded as more robust (Herriott & Firestone, 1983). Results of case studies have a broader applicability than do the single cases under study (Stake, 2006).

In their multiple case study in education, Mudrak and Zabrodska (2015) reported how they observed the interplay between participants' outcomes, motivation, learning, and social context. In our self-study we take into account the above interplay, aiming to study the ways in which heutagogy courses affected our students, our colleagues, and ourselves.

It is sometimes expected that similar cases would give rise to similar process and outcomes, thus allowing the researcher to draw generalizations (Mudrak & Zabroska, 2015). Although all the cases in our study are heutagogy courses, their different contexts (e.g., settings, subject-matter and teaching–learning designs) may yield distinct processes, outcomes, and impacts, as well as some similarities across cases.

In multiple case study, researchers have to become intimately familiar with each case as a stand-alone entity. This allows "the unique patterns of each case to emerge before investigators push to generalize patterns across cases" (Eisenhardt, 1989, p. 540).

The attempts "to reconcile evidence across cases, types of data, and different investigators, and between cases and literature increase the likelihood of creative reframing into a new theoretical vision" (Eisenhardt, 1989, p. 546). Such a process has the potential to decrease the researchers' biases (Eisenhardt, 1989).

As in the collaborative self-study methodology, the collaboration between researchers in multiple case study may help to improve the quality of the analysis due to the researchers' divergent approaches and perspectives on the cases.

## Background Information

All the case studies were conducted in two academic institutions located in the city of Beer-Sheva (a city in a southern Israeli region called Negev). One course was held in Ben-Gurion University, Department of Education, and the rest in Kaye College of Education. The region comprised diverse populations: Jews and Arab-Bedouins. Many of the Jews are first or second-generation immigrants, mostly from North Africa and the former Soviet Union.

## *The Department of Education, at Ben-Gurion University of the Negev*

Over 700 students study for a degree in the department, about half are undergraduate students, around 200 take part in various MA programs, and the remaining are Ph.D. students. Almost all of the students are Jewish. The departments has a special unit for teacher education and development.

## *Kaye Academic College of Education*

Kaye College of Education serves both Jewish and Arab-Bedouin societies. At present, about 4,000 students study in the college programs, which educate kindergarten through high school teachers in a wide range of specializations (Humanities, Science, Math, English, Special Education, Early Childhood Education, Physical Education, Art Education and Informal Education). Graduates earn a B.Ed. and a teacher's certificate.

The college offers six Master's degree programs in education (M.Ed.): Educational Counselling, Learning and Instruction, Physical Education and Sports for Excluded Communities, Education in the Era of Technological Information, Early Childhood Education and a Master's degree in teaching (M.Teach), which is a teacher education program for secondary school for students who have a bachelor degree in a teaching domain. The college also has a regional centre for professional development of teachers. Project-based learning [PBL] and heutagogy are examples of the innovative learning environments that are developed and exercised in the college.

## *The Cases*

Five different courses were included in this study: One of them (Cognition and Education) was taught at Ben-Gurion University, the other four at Kaye College.

Case One: Cognition and Education (Yearly B.A. Course; 62 second- and third-year students; for 15 of them it was the second heutagogy style course); delivered by Amnon (First author).
Case Two: Youth Cultures (One semester B.Ed. Course; 35 second-year students); delivered by Amnon and Rakefet.
Case Three: *Phronesis* in Education (Yearly course, postgraduate teacher eduacation (TE) program; 20 second-year students); delivered by Amnon and Smadar.
Case Four: Ethics in Education (One semester course; M.Teach program; 4 instances of delivering the course around 20 students in each one of them); delivered by Shlomo (Second author).

Case Five: Philosophy of Childhood Education (One semester course; M.Ed. program; instances of delivering the course 14–17 students); delivered by Shlomo. Within this case, Shlomo also refers to another heutagogy course (Teacher's Identity, described in the MTeach program which had very similar characteristics.

The five cases represent four different designs of the courses. As we'll clarify later, cases 1 and 2 are content-based courses, case 3 is practice-based, case 4 is a dilemma-based, and case 5 is a statement-based.

## Data Collection

The data was collected using various types of qualitative tools.

1. Our heutagogy ideas and activities were collected from three types of documentation: (All of them conducted in Hebrew and translated by the authors):
   (a) Documentation of our learning–teaching. Each of us conducted different types of learning–teaching activities, such as presenting the course subject to the students; explaining heutagogy and its aims; mentoring the facilitation process (e.g., meetings with students, instructions for reflection); designing the presentations; and evaluation of the learning process and its outcomes.
   (b) Documentation of our thoughts, decisions, challenges, difficulties, and successes relating to heutagogy in general and to our courses in particular. Most of this documentation is in the form of e-mail correspondences and audio recordings.
   (c) Data collected from the teachers who worked with us as co-lectures. This includes conversations, meetings, e-mail correspondences, and casual corridor talks.
2. The data gathered from the students about their learning and its outcomes were collected using six different tools:
   (a) *Observations*: Each of us followed his students' learning process through meetings with groups of students and/or individual students during the self-learning period.
   (b) *Students' reflections*: The reflective insights and the feelings of the students following their experiences were collected using various tools, which are described in detail for each case below.
   (c) *Students' self-evaluation documents*: We collected documents of students' self-evaluations.
   (d) *Presentations of learning*: One of the primary outcomes of the learning was the presentations of learning, which demonstrated some of the knowledge the students had constructed and its meaning for them. Examples of the presentations are introduced below in the courses' descriptions.

(e) *Informal discussions with students*: Informal discussions with individuals and groups that shared with us some of their experiences.

## Data Analysis

We, the two authors, worked together to analyze the data, first within each case and then across all cases. The detailed analyses are presented below within the description of the cases.

For each case, each of us read the data several times and looked for categories that characterized and reflected the students' outlook on the courses (e.g., insights, feelings) and their learning processes. As self-study researchers, we looked for both "frequent and rare events" and tried "to remain open to disconfirming evidence" (Louie et al., 2003, p. 163).

This information was gathered from the students' reflections and documentation of each course, independently. We shared our categorization with each other to deliberate about it, suggest changes, elucidate its meanings, and improve its understanding.

In each course we also searched for sets of categories that reflect a heutagogy point of view, like the types and the levels of the reflections (double or triple-loop) and the learning by wandering (see Chaps. 5 and 6). We examined these categories in the students' reflections.

Following the students' involvement in the courses we searched for indications of their feelings about meeting their basic psychological needs of self-efficacy, self-autonomy and connections and relatedness to others, according to the SDT (see Chap. 3; Deci and Ryne, 2000). In addition, we looked for emotional expressions of difficulties, frustrations, enthusiasm, and meaningful and/or deep learning.

This stage in the analysis of each course was followed by an extended discussion between us to devise possible interpretations of the data.

At the second stage of the analysis we looked for similarities and differences across courses and for generalizations relating to the setting of each course (e.g., university, college, B.A. M.Ed) and its design. The central goal here was to identify possible effects of the different settings and designs on the insights and feelings of the students. Our intention was not to identify the best setting or design but to better understand its impact in order to improve our considerations and practices. The various tasks and designs of our courses were part of the analysis.

## Limitations of the Study

The fact that each of us taught different students in different courses helps to shape distinct perspectives and allows a broader intersubjective view. Furthermore, another

role we each had during the analysis was the role of "resident devil's advocate" to each other's analyses (Eisenhardt, 1989).

We cannot ignore the fact that both of us have developed some beliefs about heutagogy as a learning–teaching approach suitable to the twenty-first century. Some might argue that we are captured by this approach and thus cannot objectively study it. Nevertheless, our prime goal in this collaborative self-study was to find ways to improve our practice of heutagogy as lecturers in higher education.

## Ethical Considerations

We told our students that we were conducting a self-study as an imminent part of our teaching in order to improve it. We asked for, and received, their permission to use citations from their reflections as evidential data to support our findings, but we took care to guard their anonymity by using fictitious names or first initials only. We have avoided including any information that might expose intimate details. In our analysis we reflected on the students' utterances but attempted not to judge them.

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# Chapter 9
# Cognition and Education




**Abstract** This chapter describes the rational, the process, and the outcomes of the course "Cognition and education". It includes its learning stages referring to both semesters, the findings from the students' reflections, and a summary of the case.

## The Case in a Nutshell

Course Name: Cognition and Education
Lecturer: Amnon (First Author).
Academic Institution: Ben-Gurion University Department of Education.
B.A. Course.
Duration: One Year (2 consecutive semesters). Elective course.
Content: The first semester was devoted to basic cognitive systems (i.e., attention, perception, and memory) and their possible relations with learning and teaching. The second semester was devoted to higher-order thinking dispositions and skills, with special focus on creative and critical thinking.
Students: 62 second- and third-year students participated; (for 15 of them it was the second heutagogy style course); The students take minor in education along with other university majors (e.g., psychology, sociology, literature).
Demographics: 95% Jews, 5% Arabs; 90% females, 10% males.
Course Design: Content-based course.
Academic constraints: The students should receive a numeric grade (no test requirement). The grade was given by Amnon, based in the students' work (no self-evaluation ingredient).

Key findings:[1]

- Students had an experience wandering when trying to find what and how to learn.
- Students succeeded in coping with vagueness by using it as an opportunity for deep thinking.
- Students developed their personal autonomy and self-efficacy.

[1] Other heutagogy courses that Amnon taught in the same university, such as "Entrepreneurship and Innovation in Education" and "Creative Thinking in Education", yielded similar findings.

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- Students performed double and triple-loop reflections.
- Learning was nonlinear.
- Students took responsibility for their learning.
- The outcomes of the students' learning were creative: they were unexpected to the lecturer and combine connections between the theories and the students' life experiences in original ways.

## Rational

I (Amnon) used to teach the course in a traditional way. I was tired from this boring way of teaching and learning. As I was exposed to the project-based learning (PBL) method, I found it more suitable to my progressive approach, and I began to use it. Then, following my students and my successful experience with andragogical way of learning, I decided to increase the students' autonomy and to facilitate a heutagogy course. I knew that the students would have difficulties to adjust themselves to such a course, but I felt that I have to let them experience an uncertain way of learning. I also believe that it fits the way our cognition functions, as it connects between the course content and its learning process.

## Learning Stages

In each semester the course has three main stages: Exposure to its main subject, the self-determined learning, and the presentation of the learning.

### *Exposure to the Three Basic Cognitive Systems*

The first three meetings of the first semester were delivered by me and were devoted to an introduction to the subject. They present the basic cognitive systems of attention, perception, and memory. The presentation included discussions about different definitions of these systems, some of their characteristics, and their connections to learning and teaching. Research findings and video clips were presented to illustrate examples, theories, and concepts.

The main aims were the following: (a) presenting the subject while revealing the students' preconceptions about it; (b) increasing their curiosity, enhancing their engagement, and reinforcing their interest and motivation to learn more about it; (c) expanding the students' array of questions, issues and ideas to enable them to choose what to learn at the self-determined learning stage.

Following the learning process, the students were instructed to write self-ongoing reflective diaries. They were invited to write personal insights, open-ended questions for further thinking, and associations of their personal, academic, or professional life. They were asked to upload these reflections onto a personal blog that the lecturer could read and respond to. This request was intended to facilitate double and triple-loop reflections (see Chap. 5) as the students were encouraged to write about the impact (if there was any) of the learning on their thoughts, beliefs, and actions.

At the end of the third plenary the students were asked to be divided into small groups (4–6 students in each). The decision to manage self-determined learning in small groups had two reasons: (a) since there were a lot of students, I could devote more time to meet each group (15–20 min); (b) the students could exercise team work to develop their communication skills and to enrich the knowledge they created.

Each group was required to think about: (a) issues or phenomena they would like to investigate within the subject of the basic cognitive systems and education; (b) the goals of their learning (e.g., research, project, better understanding). Each group had to meet me and report their ideas or their already chosen learning topic.

Each group was asked to document the learning journey in a group blog by writing its milestones (e.g., main decisions, points of agreement and disagreement, workload division, open questions, difficulties, doubts, and breakthroughs).

## *Self-determined Learning*

During the self-determined stage, I met each group at least twice to discuss their learning process (e.g., their ideas and difficulties).

Due to the request to meet me, I set additional times and also encouraged the students to use different kinds of communication tools to communicate with me.

In the first semester, the groups suggested different creative ideas for learning, such as: How children can learn to use their dreams to develop their basic cognition systems; the effect of PBL on the basic systems of cognition; the effects of the design of learning spaces on attention; mindfulness and attention; music, attention, and perception; sport exercises to develop attention and conceptual perception; working with horses and dogs to develop attention among autistic children.

Thereafter, in order to define self-expectations for the learning process and its outcomes, each group had been asked to cope with two questions. One: "how will we know we have a meaningful learning process?" Two: "how will we know we have created a valuable knowledge?" This is a kind of self-evaluation which is based on the idea of formative assessment (Nicola & Macfarlane-Dick, 2006). My goal was to encourage the students to be autonomous in deciding which criteria to use to define their expectations. I called this a self-formative evaluation. While in a regular formative evaluation, the teacher takes an active role in deciding about the students' expectations, in self-formative evaluation, the students define their expectations by themselves.

This self-formative evaluation helped students to think about their expectations, indications, and criteria for a meaningful process and valuable knowledge. For example, one group wrote:

> We ask ourselves:
> Did we learn anything new?
> Did we go into depth in our chosen subject?
> Did we answer the questions we had asked at the beginning of the process?
> Did we succeeded in conducting fruitful discussions with trust and respect for each other?.

### *Presentation of Learning*

Four weeks before the end of the semester I conducted a plenary meeting to decide together on the format of the learning presentation. The students decided to devote the last two meetings of the semester to present their learning. Upon my request, the groups should involve the other students in their presentations. Some created video clips with interviews and observations. Others engaged the other students by playing games that demonstrated some of the knowledge they had constructed. Other forms of presentation included performances like a sketch or a rap music.

## The Second Semester

The second semester had a similar structure to the first one. During the first three meetings, the students were exposed to the basic characteristics of high-order thinking, skills and dispositions, and to their possible connections with education. As in the first semester, they were asked to keep writing self-reflections in their journals. Thereafter, they worked in the same groups of the first semester. Only one of the groups decided to divide itself into two new groups. Each group chose a topic to study in the context of high-order thinking. Some groups decided to stay with the same topic from the first semester (e.g., sport, music, PBL, class design) but to study it in the new context, while others found new topics (e.g., democratic education, informal learning in youth organizations, interdisciplinary learning, learning by debates, and opinions among university faculty members about learning of high-order thinking in the academia).

One student decided that she did not want to learn in a self-determined way, because it had been too difficult for her. She asked to get precise instructions regarding her learning process and product. We discussed the issues that interested her, and she prepared a study about her teaching experiences.

When we discussed the presentation of learning, the class decided on other kinds of groups presentation. At the last meeting they put together an exhibition. In the first hour, half the groups visited the exhibitions of the other half, spending ten minutes to each presentation, and in the second hour the groups switched roles and the presenters became visitors. Each group decided how to present its learning process and/or its outcomes without consulting me, as I asked to be surprised.

The groups used different kinds of activities to increase the visitors' curiosity (e.g., thinking games, a small escape room). One group built a mini model of a construction which is usually built in the Scouts youth organization. This is an example of how the youth use high-order thinking by demonstrating engineering and creative skills.

## *Students' Final Self-reflection*

At the end of the course, each student was instructed to write a final self-reflection to describe his/her insights and/or raise questions. The students were asked to write the final reflection at least two weeks after the end of the course in order to enable a retrospective look.

In addition to the reflection, each student was asked to choose an insight or idea he/she adopted following their learning process and write a supporting argument for it. Thereafter, they were asked to conduct a self-evaluation on their own arguments using criteria from a theoretical paper about argument evaluation (Glassner, 2017). This way they could implement a high-order critical skill, which was the main subject of the second semester.

## *Evaluation and Assessment*

The students did not fully self-evaluate their work in this course. My evaluation of the group work was 70% of the final score and included an evaluation of each group's involvement in the process, their reports in the blogs and the presentation of the learning in both semesters.

Each student was also evaluated for his/her personal journal (10%), the final reflection (10%), and the argumentation task (10%). In the next time of delivering the course I followed Shlomo's practice (see Chaps. 12 and 13) and rendered full responsibility to the students, who had to decide upon their final grade and justify it. Interestingly enough, the mean score of the course remained stable.

## Findings from the Students' Reflections

The students wrote double and triple-loop reflections referring to questions such as: What have I found out about myself as a learner? How have my conceptions and beliefs about learning changed? What are the consequences of these changes?

### *The Exposure Meetings*

Most of the students reported that the first exposure meetings stimulated their curiosity about the subject of cognition and education. Cognition was a familiar subject to some students, especially those who major in psychology, yet they found its connection with education to be interesting and relevant. A student without a psychological background wrote:

> I think that the exposure meetings were important since they gave me a minimal base and directed me to think about the subject. They were just the trigger that helped me to look for an interesting topic to learn. (N)

Several students wanted to receive more knowledge from the lecturer. For example:

> It upset me a little that there were no more frontal meetings. I found it interesting to experience the idea of learning by myself whatever I choose to learn, but I also wish to learn from a professional who can teach me, for example, what you taught us today about the Gestalt Theory and other things that I don't even know exist. (V)

Other students, however, especially those who had already experienced a heutagogy course with me, preferred "to begin with the practice of self-determined learning instead of discussing the subject in a theoretical way" (D). It seems that D experiences the self-learning as a more beneficial way of learning for her than the class meetings.

## Self-determined Learning

### *Difficulties with Self-determined Learning*

**Coping with vagueness** For the students, self-determined learning stands quite opposed to how they were accustomed to learn, from elementary school through their B.A. studies. It was their first experience of being autonomous. It wasn't easy at the beginning but gradually, they found it satisfying, meaningful and even enjoyable.

At first, the students expressed their worries about the unfamiliar process:

> I believe the difficulties of such learning derive mainly from the fact that we had not been exposed to such approach before… It was difficult for us to change our attitude and state of mind, [however], it allowed us to learn in a relaxed atmosphere, without any threats and strict rules. (B)

> One of my biggest concerns was to experience a new approach of learning where I have to direct myself …. During the process I found it enjoyable and meaningful as I focused on what I chose to learn. (C)

> I believe that this confusion enables me to think creatively… (D)

Even students with prior experience with self-determined courses still felt they were in a fuzzy situation:

> It is my third heutagogy course… and I still raised my concerns about the feelings of uncertainty in using the autonomy… Still something in my mind refuses to be open… waiting for clear instructions, directions, rules… without too much thinking… it still bothers me. (L)

**A question of trust**: Some students raised the issue of moral autonomy when they had to be self-responsible for their learning:

> During the first weeks we asked you for clear instructions, trying to get hints about your expectations. How can we learn without summarizing what you said? Do you really trust us to get together and study seriously? Is there any catch? (W)

> …I felt that the lecturer believed in me and in my capabilities… it helped me very much with my feelings of confusion and frustration at the beginning. It helped me to reorganize the way I observe reality and think about it. (H)

Nonetheless, the feeling of being trusted raised an ethical issue:

> Throughout the process I asked myself whether my commitment in this course is like my commitments in other courses where there are mandatory readings and other tasks. I understood that being trusted by you and the fact that we chose the subject together in the group enhanced enjoyable and curious learning. (S)

## Changes in the students' conception of teaching/learning

**Learning for its own sake**: Some students described a change in their understanding of the meaning of learning:

> This kind of learning enabled me to experience learning for its own sake, even though we had to present something from our learning at the end. The goal of the learning and the final target were not submit a task or, getting a score. It was learning which was generated by my interest and curiosity. (D)

**Autonomy**: Students wrote triple-loop reflections about the impact of autonomy on their learning. For example, three students wrote in their blog:

> The autonomy enabled us to use all of the information sources that we found to be relevant to our learning, for example: reading Facebook group posts or learning from experts about the tensions they faced. (T)

> These opportunities enriched us and made the learning much more interesting for us. (N)

> The autonomy to choose with my group the time and the place which were convenient to us, without any inspection, motivated me for deep learning. (A)

**Wandering as learning**: The learning process was described by the students as an experienced of wandering:

> I think this is the learning which takes most of my time just because of my curiosity and interest. I find myself surfing the internet for hours learning about how animals can help students to learn. I think I might even work in this field. (R)

> I felt that this kind of learning was very effective for me and became imprinted in my memory. When I created knowledge by myself, step by step, I felt that I was navigating my way in a wonderful journey of learning, with each step adding more parts to the big picture… I felt a personal commitment to further explore these issues beyond the framework of the course. (Z)

**Meaningful learning**:
The students felt that:

> [T]he learning was very meaningful especially because of its connection to our life. When we felt we had to learn more about diagnosis we decided to read about it and discuss it in our next meeting. When we felt we needed more evidence we met students and friends with attention disorder and tried to understand them. It was a special experience for us as learning became joyful… It reminded me why I wanted to learn education. (Y)

**Collaboration and cooperation** Students emphasized the benefits of teamwork and their success in fulfilling the expectations they have articulated in the group's formative evaluation.

> Considering our aims, I felt we succeeded in creating a group where everyone feels comfortable sharing his/her knowledge and is committed to collaborative learning. We managed to meet every week as we had planned, and each of us prepared the learning materials and brought them to the meeting. …These discussions which were heated and full of confrontations, were most meaningful, especially when we listened to each other and respected different opinions. (L)

Different groups decided on different ways of dividing the work. The three main strategies were: using a task bank, where each student picks a task that is interesting to him/her or fits his or her talents (e.g., reading, writing, collecting information, talking with people, etc.); conducting all the learning together, in full collaboration; division into sub-groups (pairs or individuals) that studied sub-issues from the group topic. Some groups blended these strategies.

Two students reported the difficulties and disadvantages of learning in groups. One of them wrote:

> Sometimes I felt the problematic aspects, especially when some power struggles happened and caused me to give up my opinions. Sometimes, the timetable of the rest of my group didn't match my schedule, and it made me feel the others have been inconsiderate of my needs. (T)

Most of the groups were formed due to social reasons: "Since some of us are friends outside of the university, it was sometimes difficult to ignore our social relationships to advance better professional considerations…". (E). Two students wrote that they had put in more effort than their group mates, making them unsatisfied about getting the same group grade.

**Presentations of learning** The students wrote about the presentation of learning as an exciting and meaningful part of their learning:

> The final presentations enabled meaningful learning. Each group made a lot of effort to present the contents they had learned in the best way. I felt that such learning can be remembered more than any other kind of learning (e.g. through power-point presentations). (N)

## Impacts

**Triple-loop reflection** Before the end of the first semester I invited the students to answer the following question: "I am curious to know what you have learned about yourselves as learners?"

The students responded to this invitation, yielding reactions such as the following:

> Maybe I don't know how to ask myself 'what interests me? how do I want to learn it?' (W)

> I learned that the best way for me is to begin with my close environment. (G)

> I learned about myself that maybe I am afraid of learning and I may have some inhibitions. I'm not sure I know how to learn. (Z)

I found that I needed time to learn as I want to. I have to learn in short segments of time and to let the learning integrate with my daily life. (K)

Students wrote double and triple-loop reflections about the course's influence on their self-identity or their professional life:

> We should develop our students' internal motivation to learn and to become absorbed in what they learn… I wish that as a teacher I would be able to convince my students to study what they like to learn without committing to any syllabus. (G)

Some students mentioned the difficulties of exercising self-determined learning:

> I believe in this approach and I am convinced that the trust of a teacher in his students is the most important element. But I wonder how to implement it in a traditional school. How can we make the change? I have no answers, but my main point is that this course was a springboard to thoughts about the future and new learning and teaching approaches. (M)

Other students described the lessons they have experienced:

> I improved my social skills and my ability to work in a team. I succeeded in expressing myself. I felt like an essential part of the group, and when I didn't like an idea, I didn't hide it. In addition, I learned that I can meet new friends at any stage of my life. I learnt that keeping to a timetable is very important but is not always necessary. Sometimes it is more important to demonstrate flexibility and to adjust to others' needs. I found that I was eager to acquire knowledge, especially within issues that interest me, but that I'm also opened to learning new, unfamiliar subjects. (T)

## Summary

The written reflections convey the meaningful experience students were involved in. For most of them it was the first time coping with such an approach, learning autonomously and taking responsibility for it. Interestingly, this learning was achieved within the structured learning context of a university, and despite its constrains (e.g., syllabus, grades, academic traditions). The negative aspect of such experience is its being isolated from the rest of the students learning path. They have so many other obligations which lessen their motivation for even more deeper learning.

The students had the experience of wandering when they tried to find what to learn and how. Most of them succeeded in coping with the vagueness. They developed their personal autonomy and self-efficacy and wrote double and triple-loop reflections. Many of them mentioned indications for deep and meaningful learning when they wrote about their enthusiasm to discover new knowledge, understand it, and present it before others. However, few of them still wanted the lecturer to "give" them more knowledge as they felt he should share with them more of his knowledge.

A large variety of chosen topics and forms of presentation suggests the strong evidence to the effect of autonomous learning on students' creativity.

These findings attest that this course shows how the four key principles of heutagogy discussed in Chap. 1 (learner agency; self-efficacy and capability; reflection and metacognition; and nonlinear learning) are put into action. It also illustrates our additional principles (discussed in Chap. 6): Learning is wandering; learning is a dialogue between the student and the teacher; learning is for its own sake, and learning is meaningful. The idea that learning has an essential ethical aspect was not explicitly raised in this case.

However, this case suggests a precondition of heutagogy: **the trust principle**. Unless there is a mutual trust between the teacher and the students, there can be no heutagogical experience (see Ranciere, 1991; Serres, 1997). This trust is formed by a continuous, open dialogue between the teacher and the students, in which the consultation meetings were used to raise the learning challenges they faced.

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# Chapter 10
# Youth Cultures




**Abstract** This chapter describes the design, the learning processes, the outcomes, and the students' reflections of the course. It describes the co-teaching experience of the author, the challenges of conducting self-formative and final evaluations, and the special characteristics of an intensive course.

## The Case in a Nutshell

Course Name: Youth Cultures.
Lecturer: Amnon (First Author) and Rakefet who is an expert in the area of youth culture.
Academic Institution: Kaye College of Education B.Ed. Course.
Duration: One semester. Elective. Intensive 5 consecutive Fridays.
Students: 35 second-year students.
Demographics: Mixed ethnic group (80% Jews and 20% Arabs); 90% females, 10% males.
Course Design: Content-based course.
Academic constraints: The students should receive a numeric grade (no test requirement).

Key findings:

- Students performe double and triple-loop reflections.
- Students cope with difficulties of vagueness.
- Students experience wandering in learning.
- The presentations of learning were creative.
- Students emphasized the advantages of learning in teamwork and collaboration.
- Students express difficulties in self-evaluation.

[The same course was delivered over one intensive week, without exhibiting any meaningful differences.]

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## Setting

The youth cultures course was taught within the *Shvilim* program. *Shvilim* ("Paths" in Hebrew) is a B.Ed. four-year program. The students learn toward a teaching certificate in either geography or history, and also toward a certificate of an educator in informal education, working with youth at risk or with youth in their communities.

*Shvilim* program emphasizes connections between formal and informal learning, democratic education and social and environmental activism (Reichart & Granit-Dgani, 2017). The students experience learning strategies which display some elements of heutagogy, such as project-based learning (PBL) and place-based education (PBE) (Smith & Sobel, 2010; Glassner & Eran-Zoran, 2016), and four years of ongoing self-management learning (SML) workshops. Within these courses the students have a lot of autonomy: they choose their projects, manage them, and publicly present their learning process and end products.

More than 50% of the students report that they have experienced negative feelings about their learning in their school years, and about 10% dropped out of high school. They list this discouraging experience as one of the reasons they joined *Shvilim*: they hope to change the educational system in order to prevent their students from experiencing similarly negative feelings.

Since the students work in the informal educational system, some of the courses in the program are taught over intensive day-long weekly sessions, while other courses vary in their regularity, including a week-long intensive course and a course given over five consecutive Fridays. Each group of geography or history students learns as a cohort.

## Rational

The rational of this course is similar to the previous one (see Chap. 9). The lecturers, having a previous experience of working in a PBL approach, decided to increase the students' autonomy, and let them experience an uncertain way of learning.

## Stages of Learning

The main goal of the course was to study youth culture. The course included three main stages: (a) a short preliminary exposure to the course subject; (b) self-determined learning in small groups; and (c) presentations of the learning.

**Preliminary Meeting**

Before the first meeting, the students were asked to bring objects related to their individual experience as youngsters (e.g., music pieces, clothes, posters, games). Each student was instructed to arrange an exhibition of his youth experience, using the materials he/she has brought.

The class was divided into two groups. Half of the students visited the others' exhibitions for half an hour and then, the visitors turned into presenters for the next half an hour. The goal was to raise intrinsic motivation to learn about youth culture by connecting it to the students' own life experiences.

Following the exhibition, the students were asked to organize themselves into small groups (3–4 students), and to raise insights and questions about youth culture. A representative of each group reported to the plenary about the group's insights. Then the students were asked to connect these insights with the different objects they saw in the exhibitions.

At the last part of the first meeting, I explained the idea of self-determined learning for 15 min and asked the students to decide: what could be the specific issue/case/question of youth culture they wish to study, and with whom they wish to study it. Two students chose to study alone while the rest organized themselves into small groups of 3–5 students.

During the last 2 h of the meeting they were invited to consult with us about what they wish to study. Most of them chose to keep thinking about what to learn as a group during the following week.

**The Self-determined Learning**

The students began by choosing their learning topics. Each individual/group had to schedule at least one meeting with us during the following two Fridays, each meeting lasting 30–60 min. Apart from these meetings the students were free to learn where and when they choose to.

Before this consultation meeting, we sent an electronic message asking each individual/group to refer to the following questions:

1. What is the topic we chose to study?
2. For what purpose? (e.g., research, project, deep understanding)
3. How do we prefer to study as a group? (if applicable)
4. What will be the knowledge resources and how will we obtain them?
5. How will we know we had a meaningful learning process? What will be the criteria and the indications for such a process?
6. How will we know we have created valuable knowledge? What will be the criteria and the indications for such knowledge?

Questions 5 and 6 represent the self-formative evaluation (see Chap. 9).

In addition to the consultations, the students were invited to contact us by using different communication tools (e.g., e-mail, phone calls, social networks, and chat applications).

In the meetings the students report about their difficulties in coping with the last two questions (5–6), because this task was unfamiliar to them. Hence, we've tried to

exemplify it and to provide them with some examples (such as having the possibility for each student to have his/her voice being heard, or to ask what can I [the student] do with what I've learned).

On the third week, the students were asked to schedule a presentation of their learning before the plenary. The presentations were carried out on the last two Fridays, each lasting 30 min. Each group or individual chose the way to present the knowledge they had constructed. They could consult with us about their presentation in an additional meeting on the fourth Friday. They were very excited to present, and it seemed that they devoted a lot of imagination to be creative and to surprise their classmates as can be seen from the following examples.

**Two examples of Presentation of Learning**

One group demonstrated the phenomenon of prom (a high school graduation ball) using videos of interviews with youngsters and by running a puzzle game about historical facts of proms all over the globe. They began by demonstrating a prom in the class using dresses, music, and confetti. They evoked some questions about the ethical and the cultural contexts of the phenomenon in different places.

Another group presented a virtual exhibition of the phenomenon of tattoo among youth. This presentation included tattoo photos, quotations of youngsters' opinions, video interviews, and the results of a survey they had conducted.

At the end of each presentation, the presenters invited their classmates to write anonymous free-style feedback notes about the presentation. We asked the students to handle these notes directly to the presenters and recommended that they use them for their own self-evaluation. We avoided reading them to enable sincere peer evaluation. While the students wrote their feedbacks Rakefet and I met the presenters for a briefing.

## Evaluation Process

At the end of the course each student was asked to write a reflection that included a description of the knowledge he/she had constructed during the learning. In addition, each student was invited to grade himself/herself and to justify it. Some of the students refused. When we, the lecturers, read the students' self-assessment, we realized that it was a problematic task. Most of them gave themselves an A score, while a few underestimated their achievements. The over-estimating students told us they needed high scores to increase their chances of continuing their studies toward higher degrees.

Consequently, we suggested that the students write another self-evaluation based on the criteria and the indicators their group had formed during the self-formative evaluation at the beginning of the process, eliminating any numeric score. We also suggested that students think about what the strengths and weaknesses of their learning had been. We assessed the students by considering four main factors: (a) the

group/individual process; (b) the group/individual presentation of learning at the end of the course; (c) each student's reflection at the end of the course; (d) the self-evaluation. We also considered each individual's exhibition at the first meeting.

## Co-teaching

Rakefet and I taught this course previously as a PBL course, and then Rakefet was exposed to my heutagogy experience. Heutagogy for her represented an educational attitude and not just a method of learning. She thought heutagogy would fit the spirit of informal education and wanted to experience heutagogy herself.

We worked together in co-teaching (CO). I was responsible for the heutagogical process and Rakefet for the youth culture content. We both facilitated the students' work and evaluated their learning processes and outcomes.

In our conversations she said that heutagogy is especially suitable to the specific setting of this course: the students' characteristics (e.g., they were working in the informal education system, or their learning difficulties in the past), the subject of youth culture, and the features of youth organizations.

Rakefet shared with me her excitement from the creative ideas of the subjects the students chose to learn. At the beginning she argued that she was little bit worried about the possibility that the students' learning will be too shallow because of the extreme autonomy they had, which might be misused by them. After the students' presentations of learning, she was encouraged from the students' deep learning and knowledge, except two groups which in her opinion could have done better.

As to the issue of our co-teaching, she noticed that the informal conversations between us were a good example of our open relationships while delivering the course. Each of us has its own strengths and weaknesses so we could counterbalance each other. Rakefet said that working with me (being a senior lecturer in the college) helped her to get rid of many institutional constraints and do whatever she dreamt of. It seems the trust relations between us plays a role in facilitating the mutual work as we serve as critical friends to each other.

Rakefet asked how far our agenda should be imposed on the students. For example, can we enforce them to be curious? Or should we impose them to work in small groups? She believed that as teachers we have the right and even the obligation to dictate some of our pedagogical beliefs and practices.

She criticized the evaluation process because once we had to give grades, they should reflect more accurately the students' learning process and its outcomes and not be satisfied with general impressions. She wanted a more detailed and imposed set of criteria so that the students would know in advance that there is a link between the scores and what they have learned. As described above we followed her idea and provided them with concrete evaluation criteria.

## Findings from the Students' Reflections

In their reflections, the students wrote about the positive impact of the course on their learning. Even though, as mentioned above, the students in *Shvilim* program are used to have a lot of autonomy in many courses, they felt the need to write explicitly about the impact of the self-determined learning as a unique element that increased their intrinsic motivation for learning.

### *Overcoming Challenges*

The students expressed the ambiguity and the complexity they had experienced at the beginning of the learning:

> At the beginning I was a little worried. It wasn't clear where I should go in the process. But later on, I loosened up. I felt autonomy and I allowed myself to take the time, and it became an unusual learning process. (H)

One student with a lot of experience in informal education expressed some inconvenience and ambivalence because she misses the "traditional teacher":

> It annoys me what I'm feeling. I have become attached to self-learning and following my own curiosity, but still do not succeed in doing so. During the course, everyone seemed to be so happy not to attend the college, but I was angry because I had so much to learn from you. The tuition is expensive, the self-learning is so difficult, and I wish to get the knowledge from you. I appreciate you as professional lecturers and I don't want to look for the information on the internet. I'm depressed about not succeeding in finding the spark and the enthusiasm needed for self-learning. It truly frustrates me. (E)

However, she continued with "the other side of the story":

> But actually, and as opposed to what I wrote above, I took the role of editing the video clip we decided to produce as a group. It took me a long time to edit it, not because of the technical aspect but because it was a cognitive challenge. I tried to use this clip to present what we had learned and studied, including all of our insights from the interviews we did. It was very important for me that the other students understand our massages. From the moment I sat on my chair to edit the clip, I hadn't stopped for at least seven hours. I watched the interviews again and again to decide what will deliver our massage. Then I sent it to my group members and to other friends to get some feedback. Here I loved the self-determined learning and I had the drive to do my best. (E)

It seems that working in a group let E apply her creative capacities and answered her need for self-competence and relatedness to her group members. It motivated her to dive into deep-learning. Like with many other students, it was important for her to contribute to her group and to the other students' learning ("I want them to understand"). This may express the psychological need for relatedness and connections to others (SDT, see Chap. 4).

## *Learning as Wandering—Stopping Points*

> There were stopping points in which I had to check and test myself, see where I am and where I should go. At the end it was very exciting because it was my own product. I succeeded in bringing myself into the learning. I will definitely take this experience with me to the educational work in school. (H)

The self-evaluation questions in (H)'s stopping points—"Where am I, and Where should I go"—are additional ways of demonstrating high-level reflection. Whenever students wrote about losing their way (e.g., "It wasn't clear where I should go in the process"), they conducted a wandering learning to find possible ways (see Chap. 6 about wandering). They wandered when they had to find a subject to learn, a way of learning, sources for the learning, a way to present it, and a way to evaluate it. Metaphorically, the learning journey resembled a linear bus network (see Fig. 3.1), but in each station (milestone), the students got off the bus and started to wander by star or mesh networks in order to find answers. This was exhibited in our meetings with the students in which they reported about their learning journeys in terms of going back and forth to find what to learn and going from site to site to find relevant sources.

The students described the process as an ongoing search for information and understanding:

> Following the process, I found myself very curious and just wished to get more and more information about the topic… I found myself drawn to read research on my leisure time…I felt I was in a race to read more and more… I promised myself to keep investing and going deeper when the course is over… Sometimes, in the middle of the night I turned on my mobile phone and wrote the questions that were raised in my mind. (W)

Such reflection demonstrates triple-loop reflection, as students wrote on what they discovered about themselves as learners. Such reflections testify a process of passion and flow of deep-learning.

## *Democracy*

Albeit *Shvilim* program also emphasizes democracy education (such as forming students' parliament and committees which deal with aspects of students' life in the program), only one student connected between the experience of self-determined learning and democracy:

> For the first time I felt as if I'm in a democratic school and I experienced democracy in practice! I had never felt it before in the program courses. (A)

### *Autonomy versus Trust*

The students reflected on their inner ethical conflict regarding autonomy and trust as they feel that autonomy can be used to avoid learning and thus to break the trust relations with the lecturer:

> I think that the first thing I did when I understood that we got almost full autonomy is creating self-expectations: How much effort I will devote to the learning? How do I keep myself from translating the autonomy I received to laziness?… I'm happy I succeeded in not surrendering to my negative impulses. (V)

V actually expresses moral autonomy (see Chap. 4 about Habermas on autonomy), by coping with the temptation to follow his immediate desire to escape from effort to learn.

### *The Teacher Role*

Some students described us, the lecturers, as facilitators or moderators who enabled them to experience the joy of autonomous learning:

> The facilitators' approach to the learning process gave us confidence and a desire to learn. They challenged us with autonomy and asked questions, which lead us to deep learning. (R)

## Summary

The students' voice showed double and triple-loop reflections. Most of them described what they had learned about themselves as autonomous learners. After they got acquainted with the process, most of them did not indicate any difficulties of vagueness and got used to wandering during their learning processes. They were aware of the enhancing impact of the personal autonomy they experienced.

The students mentioned the advantages of teamwork. Their contribution to the teamwork indicated the effect of collaboration. The enthusiasm to present the newly created knowledge before their classmates shows the need for relatedness and connection to others.

As we've seen, the students expressed difficulties in creating criteria to evaluate their own learning processes and its outcomes through self-formative evaluation. They simply did not understand what we expect them to do. It might be that this task was given to them too early in the course, because it presupposes that they are already able to use their capacity of reflection.

It has been a challenge for us to help the students develop their capability of self-evaluation. It seems that such development needs an ongoing process which is

longer than the five concentrated days of an intensive course. Or maybe the whole course should be differently scaffold.

It seems that the co-teaching with Rakefet modeled the students what is a fruitful collaboration. While there were some disagreements between the co-lecturer about certain issues (e.g., assessment), these lead to a fruitful dialogue and a positive experience.

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# Chapter 11
# *Phronesis* in Education




**Abstract** The postgraduate teacher education studies course was devoted to enhancing *phronesis* (practical wisdom) in education. This chapter includes the course's rationale, its learning stages, referring to both semesters, the findings from the students' final reflections, and a summary of the case.

## The Case in a Nutshell

Course Name: *Phronesis* in Education.
Lecturer: Amnon (First Author) and Smadar.
Academic Institution: Kaye College.
Teaching certificate course.
Duration: Yearly obligatory course.
Students: 20 Second-year students.
Demographics: Mixed ethnic group (50% Jews and 50% Arabs; all females).
Course Design: Practice-based course.
Academic constraints: The students should receive a pass/fail grade (evaluated by the teacher based on the students' engagement in the learning process and the submission of the final reflection).

Key findings:

- Students perform double and triple-loop reflections.
- Students report using heutagogy in their field experience.
- Students describe learning as wandering.
- Students express autonomy and self-efficacy.
- Students have difficulties to perform self-formative evaluation.

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## Rationale

The course's main aim was to enable the students to choose a subject to study in order to improve their teaching practice. This course was part of the ACE (Active Collaborative Education) program, which is an innovative program for graduate students planning to be teachers (see Barak & Gidron, 2016).

The aim of ACE is to prepare the students "…to become innovative and proactive teachers… The ACE program's main goal is to return the authentic voice and unique educational essence to teachers and to the schools" (Barak & Gidron, 2016. p. xv). It is important to note that

> ACE curriculum is not an aggregate of courses but a set of intertwined workshops, most of them co-taught by members of the same group of teacher educators. Such concurrent interpretive hermeneutical cycles engage the participants in unfolding a common intersubjective meaning and enable the expansion of the participants' horizons (Barak & Gidron, 2016. p. IX).

We'll return later to this point when discussing the ACE faculty attitudes toward heutagogy.

The students of ACE had already experienced autonomous learning. All of the first-year students attended a course that required them to: (a) choose a topic or a skill they would like to learn by themselves for one month; (b) present their learning to their classmates; (c) reflect on the strategies they have learned, the difficulties they have experienced, and how they have coped with them. The students could choose to learn any topic or skill, whether or not it related to their professional life as teachers, in order to identify and conceptualize different ways of learning. For example, some students chose to learn skills such as juggling with four balls, pie baking, telling jokes, and tying a tie.

In their second year in the program, most students work in schools, directing most of their effort toward coping with the organizational, managerial, and pedagogical difficulties of new teachers. They emphasize their need to fulfill the expectations on them. Until two years ago, the *phronesis* in education course was given in the structure of action-research, with students studying the topic of their choice and writing about it in a research format (i.e., Introduction, Theoretical background, Methodology, Findings and Discussion and Conclusions). We, the lecturers of ACE, noticed that these requirements elicited much antagonism from the students. They argued that the demands of the academic research structure keep them away from the relevance of the course to their actual professional needs.

Consequently, I suggested changing the course structure to heutagogy. I assumed that a heutagogy course could be more relevant to their professional needs in their initial years of formally working in classes and kindergartens.

## Setting

The *Phronesis* course was managed by a team of six lecturers working in pairs forming a community of learning and practice (Wenger, 1998). Each pair was responsible for one group of students.

Due to my experience in heutagogy, I facilitated the lecturers' community. Although most of the time all the lecturers agreed on the course's essentials, occasionally assigning the same activities to all students, each pair of lecturers had the autonomy to design different processes for their own group.

### *Stages of Learning*

**Introduction to the heutagogy process**
In the first meeting the community of lecturers decided to arrange an opening plenary of all of the three student groups. We demonstrated to the students some elements of self-determined learning such as the autonomy to choose a subject, a way of learning, and a way of presenting the learning. The students were instructed to organize themselves in small groups (3–5 students each) and to learn together for 20 min a topic of their choice. Most of them used their cell phones to find and collect information. Then the groups were given 10 more minutes to agree on a way to present what they have learned in a way that will stimulate the other students' curiosity to learn more about it. Each group was given 5 min to present their learning.

One group, for example, decided to learn about sign language and demonstrated their learning to the other students through games.

**The second meeting: reflection on the first meeting**
In the second meeting, each pair of lecturers met their group. The lecturers asked their students to share their feelings and insights from the first meeting and then they explained more about heutagogy and its rational. In this meeting, most of the students talked about the joy and the good atmosphere they felt in the first meeting.

**The "looking for a topic" meeting**
In the next meeting, Smadar and I, in our group, invited each student to write something (e.g., stories, issues, dilemmas, questions, cases) that he/r would like to learn about in order to improve his/her practice. Then we instructed the students to be divided into small groups (3–4 students) to evoke preliminary ideas of potential subjects.

At the end of the meeting we asked the students to devote the next two weeks to choosing their subject. They could either do it on their own or with one or two other

students who share a similar interest. In addition, we told them that they can consult us during the regular class time.

**Choosing the subject**
Some of the students chose their topic when they met us at the end of the following week and the rest at the end of the next week. Still, for some it was quite difficult to decide what to learn. Some students changed their subject once or twice. During the 15-min meetings, each individual or small group shared with us their chosen subject and why they had chosen it. The subjects were varied. For example: How can I cope with my negative feelings toward one of my students? How can I cope with the death of a father of one of the children in my kindergarten? How can I strengthen my self-confidence in class?

During the meetings we asked questions to help the students to focus and identify the specific point they want to learn. For example, one student wanted to learn about the relationships between teachers and parents. When she told us the specific case that motivated her to choose this topic, we encouraged her to consider whether she prefers to learn about the specific case instead of the general phenomenon. Most of the students brought up cases from their professional or personal experience and reported that the discussion had helped them refine their learning subject.

**Students manage their learning schedule and choose the learning sources**
After these initial meetings, all the lecturers met to discuss the beginning of the process. For two of the lecturers it was important to initiate some structured activities to help the students manage their learning schedule. Smadar and I thought it is a good idea, and consequently, in the following meeting with our students' group, we guided a time management workshop.

In the next meeting with the students, we asked them to think about different options for finding and collecting sources for their learning.

**Consultation meetings in the self-learning process**
For the next meetings with the students we asked each individual or group to think about the following questions:

1. What is the chosen subject?
2. Why do we want to learn it?
3. How will we learn? (from whom? From what resources? Which ways?)
4. How will we know we have experienced meaningful learning? (indicators or criteria for such learning)
5. How will we know we have constructed valuable knowledge? (indications for such knowledge)

The fourth and the fifth question represented a self-formative evaluation which was already described above (see Chaps. 9 and 10). Similar to the previous case, the counseling meetings reveal that it was difficult for the students to cope with the last two questions. So, we gave them some examples for indicators they can use.

These students' answers were addressed in the next consultation meetings with the students to help them advance their self-learning, which continues until the second semester.

At the beginning of the second semester, the community of lecturers decided that the students should manage a conference where they will both present their learning and learn from their course-mates. One of the groups was asked to organize the conference, and to elicit ideas about the design of the conference.

**The conference and the final meetings**

For the conference, the students re-divided themselves into groups according to similar subjects (e.g., motivation, gaming, evaluation and assessment, class management). Each group chose a format of presentation for its subjects. The audience at the conference, which lasted over an hour-and-a-half, was first-year ACE students. Some groups focused on presenting their students' mutual ideas, while in other groups, each student or small team had an opportunity to present their learning separately. The lecturers were guests of the students in this phase.

An additional opportunity for the students to present their learning process and its products in more details occurred within the original groups in the two final meetings. We (Smadar and I) also held a conversation about the meaning of their learning to their practice.

We read the reflections and wrote to the students what we had learned from them. Occasionally, we added questions for further thinking about the topic or the learning process.

**Evaluation**

As mentioned above, in this course numerical grades were not given. All the students passed the course. To receive a pass grade they had to submit the final self-reflection.

**Final Self-reflection**

Thereafter, we asked the students to write a final self-reflection. The instructions to the students for final reflection were the following:

> During the year you have learned something related to your professional experience. We ask you to write a short document (2–3 pages) to summarize your learning. If you wish, you can relate to some or all of the following points:
>
> What did you learn about the subject of your choice?
>
> What were the milestones of your learning? Describe what helped you to make progress and what blocked it?
>
> Describe your feelings during the learning.
>
> What did you learn about yourself? About teaching and learning?
>
> What will you adopt from the self-determined learning you have experienced?

This final reflection helped us and the students to evaluate the learning process. We read the reflections and wrote each student what we had learned from them about their experience. Occasionally, we added questions for further thinking about the topic or the learning process.

**The community of the lecturers' summarizing meeting**
In a faculty meeting at the end of the course, the lecturers reflected on their experience. For three of them it was the first heutagogy experience, and for two (including Smadar) it was the second. Four of them (all except Smadar and I) concluded that the process must be more structured especially for the Bedouin students, since they are used to learn in very orthodox society and without having any autonomy (Abu-Saad, 2001; Alayan, 2013; Kaplan, 2017).
As the discussion continued, however, we realized that we could not generalize this conclusion, as it was dependent on individual student.

The lecturers contended that the students used their autonomy to enhance their learning processes and make it meaningful, but still there were some students who did not put a lot of effort in their learning. The grading system in the course was proposed as a possible explanation for this. According to this view, these students preferred to devote most of their effort to their daily challenges as teachers, even though their chosen topic could help them to cope with those professional challenges.

Also, the lecturers felt that it was a too long process and suggested limiting the heutagogy process to about one semester and a half, dedicating the rest of the time to class discussions about the professional and practical implications of what the students have learned. The idea was that shortening the duration of the course would enable keeping the cycle of a certain topic learning more dynamic and alive.

Two lecturers shared their unpleasant feelings of losing control during the self-learning process. They were not used to letting the students to lead the learning process by themselves.

## Co-teaching

Smadar expressed her feelings about the students being satisfied from the learning process, their coping with the vagueness, and the meaningful knowledge they created for themselves as educational practitioners who had already begun working in the field. She asked the ACE faculty to continue the heutagogy course as an important way of learning and she expanded her heutagogy teaching by experiencing it within one of her courses in the M.Teach program.

For Smadar, the experience of losing control as an instructor was challenging, but she recognized its importance and changed her attitude toward a less teacher-structured process (e.g., she gradually less expressed her expert knowledge about the subject).

Smadar noted that it was very important that the consultation meetings were done by both of us together, since each of us brought a different aspect of his/her professional knowledge to the dialogues.

Our collaboration was successful because we both share the basic attitude regarding the students: they should be trusted and given the opportunity of self-determined learning. This sharing attitude deepens the trust relationship between us as well.

# Findings

## *From Students' Reflections*

**The self-formative evaluation**

As in the previous case (see Chap. 10) , some of our students reported that it was difficult for them to find criteria and indications to evaluate their meaningful process and valuable knowledge. Some, however, succeeded in finding specific criteria and indicators. For example, one student wanted to improve her self-confidence. She wrote in her course blog the following indications:

> I will know I experienced something meaningful when;
>
> I feel the children respect me as much as they respect their teacher;
>
> There is no change in the children's behavior when the teacher enters the class;
>
> I do not feel helpless when the teacher leaves the class;
>
> I do not need to threaten the students that I will send a child out of the class;
>
> I feel that the lesson flows;
>
> I give myself better feedback;
>
> When I teach in the future, I will know how to pick the best option for a specific situation, a specific child or a specific class. (N)

The last indicator represents deep learning in the sense of the process through which an individual becomes capable of taking what was learned in one situation and applying it to new situations (i.e., transfer) (Pellegrino & Hilton, 2012).

> Choosing the subject The main difficulty in the process was choosing the subject and this is why it took me so long. At the beginning I thought of different ideas that interested me, but I found it difficult to study them. Then I thought about topics that can be important for me to know as a teacher, and that is how I decided on a subject… (K)
>
> V. thought about the long way she has travelled looking for her subject. She changed her topic twice. She wrote: "I understood that such autonomous learning can be meaningful for me just because of the searching process itself" (V.). V. continues with a triple-loop reflection: During the year I learned some lessons. First and foremost is that I still don't know enough about myself. Second, I learned that there are a million topics that I wish to learn, and third, that the learning process is more meaningful for me when I am asked to choose my learning topic. (V)

**Wandering**

Other students joined V and described their wandering:

> In my research process I shot in all directions. This was difficult…. I read books, papers…I learned from observations. It was important for me to know how the child behaves in his natural environment. I made a contact with experts and professional people who already had rich experience. (R)
>
> At the beginning I chose to learn by self-study. I wandered back in time, and thought about the people who inspired me, and were meaningful teachers for me and why. (G)

**Autonomy, self-efficacy, and trust**
H emphasized her feelings of autonomy, self-efficacy, and trust:

> One of the main things I took from the course to my professional work is related to the process. I had an entirely free choice and minimal intervention of the lecturers, although they supported and guided me at any stage when I needed them. I hope to take it to my teaching and invite my students to learn about things that fascinate them and make them curious… I experienced a sense of self-efficacy…I feel I can trust my students to learn to choose the best for them. (H)

H. also pointed to the role of the teacher as a facilitator who stimulates his/her students' curiosity, trusts them, learns with them, and enables them to feel meaningful learning while staying in the "background of the process". (H) Following their self-determined learning, the students reported in their reflections on giving more autonomy to their students:

> In my kindergarten there are four children who did not stop misbehaving. Influenced by the course I asked them to tell me what they would like to learn. They asked to learn about soccer. …Following this process, their behavior in the kindergarten extremely improved and it changed their attitude toward learning. (C)

## *Cultural Issues*

The Bedouin students, which were exclusively female, reported that while they understood the potential importance of self-determined learning, it was still a confusing process for them, and they thought it would be very difficult to use it in their K-12 system. They reported that as school learners they were not used to taking an active part in their learning, and usually experienced a conservative way of teaching which suppressed autonomy.

For example, a Bedouin female student wrote about her difficulties with heutagogy, while also expressing her belief that this is the right way to teach her students in the future:

> I learned about myself that I cannot choose… I need instructions to focus me, something clear to guide me. But I want to adopt such learning for my teaching and offer my students the freedom to choose topics for learning. They will also choose the way to learn. I can see the advantage of such learning, which gives the students an opportunity to be independent and to make decisions by themselves. They will have more motivation to search and learn new things they like to learn. The students will not be satisfied with one source of information but will look for many sources. They will develop an ability to cope with the autonomy they have. (O)

Another Bedouin student expressed motivation to change her way of learning and teaching:

> …But most of all I learned to accept my failures and from that point to search ways to change myself in order to be a better teacher. …I would like to take with me the following guidelines for the upcoming year … 1. Giving more autonomy to the students; 2. Getting the

> students to come up with questions about the learned contents; 3. Allowing them to choose more creative ways of doing certain tasks in class. (R)

The above citations (double and triple-loop reflections) notwithstanding, few of the students' final reflections reflect cultural differences between Jews and Bedouin students. The differences were noticeable when students from the two cultural groups answer the questions: What did you learn about yourself? About teaching and learning? And what will you adopt from the self-determined learning you have experienced?

Thus, for example, instead of dealing with the above questions, Z (a Bedouin student) summarized her experience:

> I learned that we could cope with each problem or at least try to solve it: to search, to invest… Everything is possible. If we have the will, we can achieve a solution… The main thing is to feel responsibility. (Z)

Compared to other responses, this is a very general one, almost at the level of a slogan. It says nothing about her feelings or attitudes (we… and not I…) or about the process she underwent in the course. As they told us, for some of the Bedouin female students it is the first time in the educational system that they were asked to refer to the question "what do you think of…?" Either the student is not used to speak for herself, or she didn't understand the intent of the question (which was in Hebrew), or she simply did not experience the self of the self-determined learning.

While Jewish students wrote about self-determined learning as a meaningful pedagogical approach (formulating double and triple-loop reflection), Bedouin students focused mainly on the content they had learned (first-loop reflection). For example, G, a Bedouin female student, writing about the issue of what she can take from heutagogy to her teaching experience, said:

> I learned that it is necessary to combine technology with the subject learned as much as I can… (G)

## Summary

The students noted that the self-determined learning provided them with a unique opportunity to cope with issues of professional practice, enhance their capacity as self-determined learners, and promote their self-efficacy and autonomy. It seems that their experience with autonomy in the first-year course helped them cope with the vagueness and fuzziness during the learning process.

Yet, it was difficult for them to find concrete indicators and criteria for meaningful learning and valuable knowledge. As in the *Youth Cultures* case described above (see Chap. 10), this was the first time for these students to exercise a self-formative evaluation.

In their double and triple-loop reflections, students described their experiences of wandering as leading to deep learning about the content and themselves. The subject

of the course and the role of the students as novice teachers made them emphasize the practical challenges of their teaching.

The idea of including a heutagogy course within ACE program elicited, as we (Smadar and I) found, a challenging situation for the course teachers who had to undergo the andragogical approach of ACE.

Again, it is found that the idea of co-teaching is fruitful for the students. Trust plays here a crucial role as it increases the students' intrinsic motivation for learning in a safe environment. Trust between the co-teachers themselves is also a necessary condition for enabling fruitful co-teaching.

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# Chapter 12
# Ethics in Education




**Abstract** I experienced heutagogy as a lecturer in two slightly different formats, "dilemma-based" and "statement-based". The dilemma-based case study described in the present chapter consists of four instances of the same course type, delivered over four consecutive years. All of them shared the same setting and were taught to different students. The statement-based type will be discussed in the next chapter.

## The Case in a Nutshell

Course Name: Ethics in Education.
Lecturer: Shlomo (Second Author).
Academic Institution: Kaye College.
M.Teach. cohort-based program.
The Course: Four instances of delivering the course.
Duration: One semester; obligatory course.
Students: Average of 20 students per course.
Demographics: Mixed ethnic group (approx. 75% Jews and 25% Arabs). About 85% females.
Academic constraints: The students should receive a numeric grade.

Key findings:

- Students report that at the first meeting they felt confusion and frustration which subsequently had been changed to an experience of genuine learning.
- Student underwent a process of deep learning: Their readings, being self-initiated, were more interesting to them and lead them to meaningful insights about the moral dilemma and themselves.
- The significance of the learning process is sometimes recognized long after the course is finished.
- The course demonstrates a wandering learning process which encourages a dialogue between the teacher and the students and among the students themselves.
- The course enables the satisfaction of the three SDT theory basic needs.

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## Setting

"Ethics in Education" is an obligatory course within a Master of Teaching (M.Teach) program in a college of education. It is a two-year program, in which students with either a bachelor's or a master's degree in a school subject learn to become high school teachers. The program is cohort-based and the students learn almost all of the courses as a group.

About 20 students participated in each of the courses described in this case study. The student population was quite diverse. Most of them were female, married with children. Most of them were in their late 20s, although several were in their 50s or close to. The students came from different social, ethnic, and religious backgrounds (Jews, Muslim Bedouin-Arabs). Most of them were born in Israel, although some were immigrants (from the former Soviet Union or Latin America), and most of them lived in the region.

Many students entered the program directly following their first academic degree, usually a B.A. in liberal arts or a B.Sc. in sciences. Others intended to change their professional career, for example from engineering or pharmacy to teaching, sometimes long after they had completed their academic course of study. A few students were already working as teachers when they started the program, but they lacked the required license to teach.

The "Ethics in Education" course was delivered in the second semester of the first year of the program. I served as the head of the program and taught an andragogic workshop to the same group in the first semester. Thus, when the Ethics course began, I already knew the students, they knew me, and they knew that I "know how to teach" in a traditional manner.

During the four years this course type was taught, and it underwent some modifications. In this case study, I present the prototype of the course and indicate those changes as they occurred.

### *General Overview of the Course*

"Ethics in Education" belongs to the philosophical domain called "applied ethics". Usually, it deals with daily moral dilemmas which are typical of a certain practical or professional field (Singer, 1986). A moral dilemma arises when two values that an agent wants to observe cannot be simultaneously accomplished [e.g., when an agent is forced to choose between telling the truth to the police and being loyal to a friend who has performed a crime (such as robbery) (cf. Kant, 1948)]. The very notion of dilemma indicates that there are cases in which whatever one does is morally problematic.

This characterization defines the course frame of reference and justifies its aim and focus. Obviously, this focus is highly relevant to the professional experiences of the learners. The aim of the Ethics courses was to enable the students to understand that

teaching has an essential ethical aspect and explore its relevance to their profession. Hence it was not a type of course which dealt with "what the sages had said about virtues, morality, justice, equity, etc.…", but with the personal bearings of these concepts on each student as a prospective teacher, in light of what philosophers and "others" had said about them.

I had previously taught the course in a traditional "talk and chalk" manner, and I expected that transforming the method of delivering the course would enhance the students' intrinsic motivation to be involved with its content (see Chap. 4), and provide a model of how to deliberate moral issues in their professional (and personal) life.

Another rationale for having a heutagogy-style course in the M.Teach program had been to expand the prospective teachers' repertoire of teaching methods. This reason was discussed with the students in the first meeting of each instance of delivering the course.

## *Stages of Learning*

The course lasted 14 weeks and had two major components:

4–6 plenary meetings: 2–3 at the beginning of the course, 1–2 in the middle, when it seemed appropriate (upon the students' or my requests), and 1–2 at its closure.
2–6 consultation meetings between me and the students (mainly upon their request), as well as e-mail correspondence, and brief occasional encounters.

The course began with two or three introductory plenary meetings planned by me. They were devoted to two issues: the course's subject-matter (applied ethics) and its method of study (heutagogy).

Only few of the students had learned ethics previously, so it seemed necessary to introduce the subject. It was especially important for me to emphasize the difference between facts and values, and to stress that "norms" by themselves are not ethical duties and should have moral justification. Applied ethics is not an experimental domain of studies like psychology, sociology, or anthropology. The fact that many people think that some action is normative does not make it good from an ethical point of view.

Another introductory step was presenting the notion of "moral dilemma", emphasizing that in this domain of studies there are many points of view, many controversies, and no agreed upon solutions.

**Choosing heutagogy**

The first time I taught the course in a heutagogic manner, I gave the students the option to choose between being taught in the traditional paradigm or learning differently. The students had never experienced self-determined learning, so it was necessary to introduce the idea of heutagogy and explain its rationale. After a short explanation,

they agreed to take part in what was, for them and for me, an exciting new experience (this had been the first heutagogy course in the entire college).

Interestingly, Ruth, one of my colleagues, taught the same Ethics course in the same semester to another cohort of M.Ed. students. She also wanted to experience heutagogy, and we thought that it would be curious to compare what happens in the two classes. However, Ruth's students refused to try heutagogy. They said to her that they didn't want to face the confusing, unpredictable, and fuzzy nature of a heutagogy course. They said that "we pay tuition to be taught and not to learn by ourselves", and they feared that heutagogy would require "too much work" of them (Ruth report).

The fact that I was the head of the M.Teach. program might have had an influence on the M.Teach students' decision. And maybe the fact that I served as the former president of the college gave heutagogy an authoritative legitimization. ("For sure, he knows what he is doing".)

Giving the students a choice turned out to be more problematic in the second instance of delivering the course. As a way of explaining what heutagogy is, I asked the students to base their decision (whether to learn in a self-determined way) on a matrix in which they would grade several of the course's aspects (its aim, its content, its method of study, its learning environment, and its evaluation method) on a 5-grade scale ranging from "completely teacher determined" (1) to "completely student determined" (5).

The average score in the students' matrix was 2.78. So, on the face of it, it seemed that they agreed to learn in a heutagogy style course, albeit with moderate enthusiasm. (The different aspects had the following rates: Aims: 1.81; Content: 2.23; Method: 2.96; Environment: 3.58; Evaluation: 3.42). It seems that the students differentiated between the various aspects of the learning process. There was a slight tendency within the Arab-Bedouin students to favor the teacher-determined learning (2.42).

In the plenary meeting that followed my presentation of these results, the students further expressed their consent, but then one of them said to his peers: "From the WhatsApp correspondence during the discussion, I see that you really prefer a "regular" lesson, and do not frankly say what you think". His statement aroused a new round of heated discussion, the conclusion of which was that, after all, they agreed to learn in the suggested way ("Let's give it a try").

In the next two instances of delivering the course I did not offer the students the option to learn in the traditional paradigm, possibly in order not to put them in an uneasy position at the very beginning of the course. I decided for them that they will be self-determined learners…

Similarly, in all the course instances I did not ask the students whether the course would be dilemma based. These decisions raise a general question: within heutagogy, how much should the teacher still determine some aspects of the learning? In other words: are there any "red lines" which render the whole course, or some parts of it, a non-heutagogy one? We will return to this perplexing issue in Chap. 16.

**Initiating the learning process**

In the first session I told the students what characterizes a moral dilemma and asked

them to think about a particular case in which they had encountered such a dilemma in their educational experience.

As the students narrated a personal story, they attempted to identify the moral problem involved in their story and notice the conflicting values which were in conflict in the dilemma. In the following two plenary meetings, we checked whether each dilemma is ethical (involving conflicting values) or professional (such as, what is the best method to deal with class management problems?). This demarcation was difficult for the students to grasp, so we had to revisit this issue in the consultation meetings and in the plenary held a month later.

During the first plenaries, each student chose a dilemma s/he wanted to study. The student could also modify the dilemma or change it as a result of her/his learning process. Two or three students who shared a similar dilemma could study it together.

**The self-determined learning stage**

At this stage of the learning, the students began to inquire how the dilemma could be explored. They learned by themselves, and the process was facilitated by personal consultations with me, held upon the students' requests, and through e-mail correspondences.

In the first two instances of delivering the course, the consultation meetings were optional. However, because some students never showed up, in the next two instances I insisted upon two obligatory personal consultations: at the beginning of the process and in the middle (to prepare the "declaration of intent", see below).

The reason for my decision was that the students in the former instances reported that the personal meetings were very helpful to their learning progress, although another possible reason was that I still felt a need to know "what is going on" in their processes. In these consultations I tried to raise questions and not to give answers, to draw a map and not to dictate directions (see Chap. 6).

The first personal meeting was devoted to defining the dilemma and the values it involved. Thereafter the students began a free wandering journey, using the internet, the library, their peers and friends, and other resources they found, to learn about the dilemma and to assure that they "really" wanted to deal with it.

This wandering was a star-type journey (see Fig. 3.1) as the students went back and forth from the conflicting values they identified, serving as their hub, to various resources that they found relevant to coping with the dilemma. This step caused some of the students to modify the dilemma, and in some cases to replace it with another, which seemed to them more relevant.

Here are some examples of the moral issues the students decided to explore: inclusion, diversity and social justice; equity and equality; integrity versus external regulations (e.g., loyalty to an individual student or to the "system"); freedom versus coercion; sincerity versus friendship (e.g., telling a "white lie"), the place of the parents and that of the teacher, the tension between fulfilling your duties as a teacher and your external obligations as a person (a parent, a spouse, etc.). Several students concentrated on abstract questions such as: Is ethics relative? Should there be a professional ethical code? The major philosophical thinkers they learned included Plato, Aristotle, Hume, Kant, Bentham, Rousseau, Mill, Rawls, and Noddings.

After formulating the dilemma, each of the students (or group of 2–3 students) proposed, upon my request, a "declaration of intent". Somewhat like Rogers' contract (see Chap. 5), the declaration delineated the students' learning path and detailed their expectations and obligations. It stated what they intended to learn, in what manner, what resources they would utilize, what would be estimated by them as a successful learning according to which they would evaluate it. The declaration also related to the manner the students wished to be helped by me.

The declaration could be renegotiated and modified at any point in the course, upon the student's request.

Thereafter, I was there in the background, ready to help the students reflect on what they had discovered, or on their learning journey. Once or twice, when similar issues arose—such as the reliability of a resource of information, a clarification of a certain ethical theory, or "how should I proceed from…"—I conducted a plenary to discuss them. In these plenaries the students shared with the entire class their concerns about either the content or the method of their learning. They also raised questions about possible ways to present what they had learned or their learning process and discussed the criteria for evaluating the "what" and "how" of the learning process.

**Concluding the learning process**

The students differed with regard to how they chose to present their learning. The two prominent methods were submitting an academic paper or delivering a class presentation. Other methods included preparing a video-clip, a conference-style poster, a magazine interview or report, a letter to the Ministry of Education, reporting WhatsApp discussions with classmates about the dilemma, arranging a class debate about it, and even writing a poem or creating a dance displaying the dilemma. Two students who shared a dilemma read together Kant's *Groundwork of the Metaphysic of Morals* and submitted an analyzed protocol of the discussions they held about it.

The concluding 2–3 sessions of the course were devoted to the presentations of the students who chose that form of presenting their learning, and to a general reflection on the course, both by the students and myself.

The students had one further obligation dictated by me. Following the presentation, they had to submit a written refection about the content of what they had learned and the process they had gone through. The main question of this part of the report had a triple-loop focus: "What did I learn about myself as a learner?" (see Chap. 5). Each report also had to include the criteria the student chose to evaluate himself/herself and the requested score based on these criteria.

## *The Students' Voice*

The students' account of their learning process is expressed in their written reflections. A typical example is that of David. David was a lawyer who decided to become a teacher. In the Ethics course he chose to study the following question: "According to Israeli law the parents of a special needs child have the sole authority to decide

whether to send their child to a special education institution or to a regular class. Is this law moral?" This case presented for David a possible moral conflict between the private and the public good. He decided to submit an essay with a part entitled "reflection":

> From the onset of the course until the minute I began writing this essay, I was certain that I cannot cope with the way the course was being conducted. I was sure that the self-determined learning is the main challenge of the course. It seemed to me that I needed predefined, fixed and accessible material, very strict instructions, and in general, someone to direct my study and make me stop asking questions.
>
> However, the method of study, both within the class and outside it, was quite efficient, and at the end of the course I understood what had been expected of me as a self-determined learner. The process was stimulating, and it brought my thoughts to higher places than usual. At a certain stage I understood that heutagogy involved metacognition: thinking and determining one's own thinking… I felt that not only did I plan the course's product from scratch, but I also understood how to think and feel, while I was mapping, as I was going along, the form and manner of my thinking.
>
> However, after finishing my essay, I realized that the difficult part of the course was not its being self-determined but its topic: to understand what is meant by ethics. I struggled throughout the process with the demarcation between what is useful and what is morally good… Even today it is still difficult for me to fully grasp the demarcation between the two notions.
>
> The dilemma "pops" into my mind quite easily. A week earlier I spoke with my wife, herself a teacher, about the problems raised by including children with special needs in her class, because it disturbed the learning of the entire class…
>
> My problem began when I tried to grasp why it is a dilemma, and especially why it is a moral one. At this stage I analyzed the dilemma in order to identify the moral values involved in it. This sounded simple, but it wasn't. At first sight I intuitively felt that in this case there is a conflict between values, but it was not so easy to "retrieve" and define them. It was quite difficult to remain in the "moral" sphere and not go to the practical aspect of the conflict.
>
> At this stage I began reading various moral theories (e.g., Rawls and Nozick, Bentham and Mill). The more I read, I better understood the complexity of the learning process. Each theory I read brought me to probe its underlying philosophical basis. Each theory I read caused me to read more theories, which attempted to deal with questions such as: what justice is, what is ethics, etc.… I felt I could continue reading more and more theories to help me deal with the dilemma. The more I read, the more confused I became. I expected this to happen.

David was unaware to the fact that his confusion reflects the very idea of a moral dilemma, which has no definite solution. And he continued:

> I remember approaching the teacher and asking him for specific directions, because I feared that I was "getting lost" in the wealth of the material I had read. The answer I got could have frustrated me, but it had the opposite effect. His answer was simple, but it led me to a better understanding of the essence of the course. His answer was, "So what? Get lost! What is important is not solving the dilemma but the journey you will travel during the process." And then I understood. The aim of the course is not to achieve a predefined target but to encourage learning: the capacity to learn by yourself…

At a certain stage I had to stop the influx of theories in order not to "lose the direction". I decided to focus on the social contract theories (Hobbes, Locke, Rousseau) as the basis of my essay. I had foreseen the possibility and the fear of getting lost or

having no direction in learning the dilemma. This was unavoidable. I feel that I had used heutagogy's principles, determining my own path, independently, in the entire course. However, I am not satisfied with the solution of the dilemma. I am pleased with the journey and the mode of my learning but not entirely with the answer. But I do not feel frustrated. The aim was developing the ability to learn by myself an unknown topic with no predefined directions and with a huge amount of cognitive flexibility. This I had done in an excellent manner. David suggested the following six criteria for his self-evaluation:

1. Attendance in the plenary meetings and ability to determine an independent course of study (15%)
2. Understanding ethical notions, and especially the nature of ethical dilemmas (10%)
3. The inquiry of the self-determined process (25%)
4. Critical discussion and analysis of the findings (20%)
5. The quality of the essay (Writing skills) (10%)
6. My ability for self-modification (20%).

David estimated that he successfully understood the difference between ethical and practical dilemmas. However, he felt that his work was not perfect because it lacked the focus he wished for. He attributed this deficiency to the short time of the course. "If it had been longer, I could have learned more and dealt with the theories in a more satisfactory way". He gave himself an A-.

In his essay's summary he discusses his learning journey:

> I felt that I was able to undergo a process of change from learning in the traditional way to a non-traditional method, in which the emphasis is on "being thrown" to the water, with no previous preparation. …I believe that this is the essence of the course. The course was taught in a new way (for me and for all the other students). The aim was that we develop capacities to deal with such a course.
>
> I felt that every step in this process, since the first lesson, is reflected in my understanding of how to learn the course. Even in moments when the other students in the class complained and protested because they didn't understand the course's requirements, I, personally, understood the logic behind the requirements, and the other students' frustration only strengthened my feeling that I was able to go through a process which teaches me how to learn in a different way from the one I had been used to. At the end of the process I can say full heartedly that, as a teacher, I would like to use this method.

As David mentioned in his reflection, at the beginning of the process not all the students felt that it was helpful for them. However, few of them (2–3 in a cohort) maintained this attitude till the end of the semester. For example, Gale, a relatively old student, felt that:

> This method of learning does not suit me… I don't like to learn this way because deep learning happens when I can use previous knowledge I had acquired, and I felt that my knowledge did not have enough basis.

Other students thought that the introductory part of the course was too brief. "It was quite frustrating. I wanted to be more directed" (Vivian). Lisa professed that she "…felt helpless. Self-determined learning is okay, but it has to be based on

something. What are the expectations? What is the aim?" And Sara adds: "There is a feeling of Chaos. We didn't understand what was going on. It was a feeling of being disconnected". Elene was more optimistic. She felt "lost" though not "hopeless".

For most of the students, the confusion and frustration of the first meetings changed to an experience of genuine learning. In a metaphorical way, John reflected that:

> I feel as someone who got an empty page and a paintbrush, markers and scissors. I began drawing a line and another line, without planning ahead. After a few lines, the drawn shape began to clear up, and then came a big tempest that erased everything, and the page turned empty, waiting for the next creation… And again, the page filled, and a drawing seemed to be regenerating, but the creative spirit went to other places… And the drawing is now presented. It is not clear, and it can be seen differently by different people… Sometimes it is a cloud, sometimes a house.

> The main issue was to choose the dilemma. It made it interesting. It was a journey which took time, but at the end I approached the target, but the target itself is not clear and raises more questions.… I was pleased to study the dilemma and expand my knowledge…

David preferred to learn alone. John chose to learn with two other students. Learning in a small community of learners adds another dimension to the process. Sara referred to the teamwork in her reflection:

> Learning in a peer group contributed to deepening the discussion between us and helped us understand the dilemma in a much wider way. I noticed that when I have to explain something to another person, sometimes in different ways, it gives me insights and understandings which I had not seen or thought about before, in addition to better knowledge.
>
> I learned about myself that I have more patience than I thought I had. Preparing the presentation together contributed to my creative thinking. While studying, I was thinking about the linkage between ethical theories and the dilemma, and I found connections with sociological and economics theories I had previously learned.
>
> In addition, I learned that, as a learner, I accomplished on schedule all the tasks I took upon myself in the group. I can be trusted as a group member and I have something I can give to the community.
>
> This process taught me that I have to show more tolerance to my colleagues, and that I do have more tolerance than I thought. I learned that when you work in a community of learning you have to compromise. But the advantages outweigh the drawbacks. Thanks to my colleagues, I better understand the dilemma and its connection to other domains.

While the advantages of learning in communities is well documented (since e.g., Wenger, 1998), this reflection and Amnon's cases highlight the self-determination aspect of the working group. Let me conclude this section with another reflection, written by Lea, who learned in a small community of learning:

> The learning process was difficult and challenging for us. We took a risk and went to an unknown land. The route was not clear, but we got from you [the teacher] some signposts and possible directions. We sat many hours, alone and together, trying to understand what we read… There is no final target; we are still learning about our dilemma, each time from a different angel we encounter in our life experiences.

## Summary

Compared with previous instances, in which I taught the Ethics course in the traditional paradigm, it seems to me that most of the students underwent a deeper process of learning. Their reading, being self-initiated, was more interesting to them and led them to meaningful insights about the dilemma and themselves. Thus, for example, Hellen says: "I am a person of black and white. No middle. In this process I indeed understood that there are cases in which it is impossible to determine a definite answer in a dichotomic way …" And she concluded with the words "A lesson for life, in itself". This reminded me of Serres' notion of the "third" (discussed in Chap. 6).

The students voluntarily read many more resources than their peers in the standard Ethics course. Their readings were a result of their self-determined wandering process. As Naomi said: "I began to read many books in philosophy of education, and in most of them I didn't find any connection with my dilemma, till I found some texts devoted to humanistic education…"

Upon reflecting on their learning processes, most students reported having gone through three definite emotional stages: at first, they fell uneasiness, confusion, and disorientation (regarding both the process and the content of their learning); then, progressively they developed self-confidence and competence; and lastly, at the end of the course they felt satisfaction and success.

The significance of the learning process is sometimes recognized long after the course is finished. Sara, who was highly critical of heutagogy while being a student in the course ("you have to tell me what to do…"), reported a year later that she had changed her mind: "Today, one should learn from one's own interest" (interview by the first author).

Returning to the main characteristics of heutagogy discussed in Chaps. 1 and 5, the above case study demonstrates that all of these characteristics were implemented:

It enhances action-learning; it is learner-centered; the curriculum is not linear; and it emphasizes competence development, collaboration, and double and triple-loop reflections.

As to the five characteristics of heutagogy discussed in Chap. 5, the above case study demonstrates a wandering process of learning, which encourages a dialogue between the teacher and the students and among the students themselves. It leads to meaningful learning, and it is done for its own sake. As it is an ethics course, its essential ethical aspect is inherent. The process also enables the satisfaction of the three SDT theory basic needs: competence, relatedness, and autonomy (see Chap. 4).

Although the notion of trust did not appear in the students' voice or in the above analysis, it seems that the learning processes that the students underwent depend on the trust relationships with the lecturer. This can be demonstrated by their sincere expression of their attitudes toward the course and their learning.

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# Chapter 13
# Philosophy of Early Childhood Education




**Abstract** The statement-based case study consists of two instances of the same course type, delivered over two consecutive years. All of them shared the same setting and were taught to different students.

## The Case in a Nutshell

Course Name: Philosophy of Early Childhood Education.
Lecturer: Shlomo (Second Author).
Academic Institution: Kaye College.
M.Ed. Course (two instances of delivering the course).
Duration: One semester course; elective course.
Students: Average of 16 students per course.
Demographics: Mixed ethnic group (approx. 80% Jews and 20% Arabs). All females.
Course Design: Statement-based course.
Academic constraints: The students should receive a numeric grade.

Key findings:

- Students were interested in revealing the connections between what they have learned in the process with their system of beliefs, life, and practice.
- At first, students discovered that their ideas were question-begging, full of platitudes and clichés. They felt confused. The initial frustration was gradually replaced by the feeling of "I can cope with it".
- Students learn about themselves as learners manifesting triple-loop reflections.
- Students emphasize that the teacher trust in them was essential: it makes them trust themselves, the teacher, and their kindergarten students.
- Students say that it was a highly difficult course.

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## General Background

One of the main differences between a statement-based course and a dilemma-based course as described in the previous chapter is their different focus. A statement-based course deals directly with the students' professional identity. It presupposes their capability and willingness to publicly share and discuss their beliefs and attitudes about themselves and the profession they practice. Put differently, the content of this course is not some external material which the students have to study, but a personal journey they have to undergo.

The statement-based heutagogy courses were delivered in two different master programs. The first, an M.Ed. program for preschool education; the second, an M.Teach (teacher education) program for prospective high school teachers. I'll present the instances of the M.Ed. program, and mention the M.Teach one in the penultimate section of the chapter. The M.Ed. program targets qualified educators with a B.Ed. in early childhood education who wish to continue their academic course of studies. Most of the students were graduates of the same college, and all of them had at least five years of teaching experience upon entering the program.

In the program, each student belongs to a cohort and studies one day per week for two years. The "Philosophy of Early Childhood Education", taught by me, is an elective course. This was the students' only heutagogy course in the program.

In what follows I discuss two instances of delivering the course to two different cohorts. Both were delivered in the students' first year of studies. Cohort A took the course in the second semester and cohort B in the first. The population of both cohorts was quite diverse. The first cohort (A) comprised 17 students (15 Jews and 2 Arab-Bedouins). The second (B) comprised 14 students (11 Jews and 3 Arab-Bedouins). All the students were female; most of them in their 30s and 40s, married with small children.

The course goal was not to teach the students philosophical theories about childhood or childhood education. Instead, its purpose was to unveil the students' tacit knowledge (see Chap. 5) of these matters. Its goal was to enable them to formulate, discuss, and criticize their own account of their profession, question their presuppositions, and realize that their personal, subjective theories (theories with lower case t; see Chap. 5) form their professional identity and influence their practice. Heutagogy seemed to me especially fitted to attaining this aim.

## General Overview of the Course

I determined that each student's learning would resemble a star-type network (see Fig. 3.1). It would focus on a core statement (CS), in which she would express her creed about herself as a kindergarten educator (in cohort B), or about the children she educates (in cohort A). The rationale for this decision was similar to the one presented in the dilemma-based cases (see Chap. 12). Philosophy should be relevant to one's

life. It should influence one's own worldview, which should be openly expressed and critically discussed.

At the beginning of the course each student was asked to complete the CS "For me, the kindergarten child is …" (cohort A) or "For me, being a kindergarten teacher is …" (cohort B). During the entire course, each student questioned the significance of her CS. After formulating the statement, each of the students identified the key notion that appeared in it (e.g., equality, authenticity, freedom, dignity, creativity, curiosity, change, etc.), and investigated its possible meanings. Again, the idea was not to lead the students to form or examine conceptual generalizations but to extract the relations between the notions inside their cognitive webs and between their web of notions and the world. Thus, it resembled Cassirer's epistemology discussed in Chap. 2).

After formulating her CS, the student was free to decide what to learn (what aspects of the CS she wanted to inquire), with whom (i.e., alone or with a colleague or two), with whom to consult, how to present her learning journey (its content and its path), and how to evaluate it (in terms of both the criteria and the suggested score). I advised the students to use various sources of knowledge which they thought could help them in their learning journeys (e.g., academic publications, magazine articles, films, websites, interviews…). In addition, students often dealt with some practical implications of their discoveries. All their learning processes were facilitated by me (upon their request).

Both instances of delivering the course were structured in a similar manner to the dilemma-type course described in Chap. 12, so I will just repeat the essentials. The course comprised 5–6 plenary meetings, personal/small group consultations, 2–3 plenaries devoted to the students' presentations, and a concluding lesson. In the two instances of delivering this course type there was "heavy traffic" in the online correspondence between the students and me, mainly via e-mails.

In addition to presenting their learning in a format of their choice, the students were required to submit a written reflection on their learning journeys, including a section devoted to the triple-loop insights they had reached about themselves as learners and as professional kindergarten teachers.

## *Stages of Learning*

### Preliminary meetings

In both instances of teaching the course, I prestructured the first meeting. It comprised two parts. First, the students and I introduced ourselves and I briefly exposed the essentials of heutagogy.

Subsequently, I asked the students to complete the CS, and asked for a volunteer to present and discuss it in the class. Thereafter, and continuing during the two succeeding plenaries, the students who wanted to, presented their CSs. The class

functioned as a support group, and the students discussed each CS, trying to understand its meaning and asking for clarifications. This phase was highly productive. Since the classmates shared the same profession, they had a lot to say to each other (from: "I fully see your point" to "I cannot understand why you say that…")

**Some examples of the initial CS's of students**
Cohort A. "For me, the kindergarten child is …

Ariella … a little treasure that I have to keep, protect, embrace, teach, love, expose him/her to any occurrence and struggle, play with and give everything I can to.

Galia … 1. A citizen (I have to prepare him to be a learner, a human being, a leader …); 2. A little toddler in need of inclusion and caring; 3. A child who needs guidance and learning.

Adva … a personal challenge. He is my mirror as a teacher. At the end of each year I look at each child and examine whether I had succeeded in accomplishing what I wanted.

Cohort B. "For me, being a kindergarten teacher is …"

Ella … a mission, which fills my hart every day.

Naomi … the ability to promote each child at his own pace and ability.

Noa …to stand before a daily challenge. To enter the kindergarten and see whether what I had planned for today is something I can accomplish, or would I have to be flexible and adjust myself to what the children feel.

As these sentences exemplify, there was a noticeable variability in the students' CSs. However, each of them includes slogans and platitudes which call for further clarification. Hence, the common question I asked in the first meetings of the course was "what do you mean by…". This turned out to be a tough question, because, as the students attested, it was the first time they had to formulate and clarify their CSs in public.

After the second plenary meeting, I sent the following e-mail message to the students:

> …I suppose that each of you had articulated the CS she would like to investigate. To begin the inquiry, please address the following issues:
>
> My CS is…
>
> I want to study it alone/with…
>
> How do I (we) want to study it?
>
> What would count as successful research?
>
> How would I evaluate my learning?
>
> What do you expect of me as the teacher of this course?

I replied to their responses with a set of questions regarding certain notions which appeared in their CSs and needed further clarification. This forced them to re-think their statements. Thus, for example, to Ella's CS ("For me, being a kindergarten

teacher is a mission"), I responded with the questions: "What do you mean by 'mission'?" These exchanges caused some of the students to change their CSs (see Mina's reflection, below). To the substance-oriented question, I added a few process-oriented ones, such as: "How are you going to investigate your CS?" Or "Which resources do you want to use/consult with?"

In both instances of delivering the course, after three plenaries and the correspondences which followed them, the students felt that the plenary meetings had exhausted themselves. They asked to begin with personal consultations. Although these consultations were optional, it so happened that in both cohorts the students wanted to attend all of them, so I met with each of them almost every week for 10–20 min.

**Students' learning path**

After the first personal consultations, the students began their independent investigations. Following the first round of consultations, we met in a plenary to discuss mutual questions about the CSs, and address common difficulties relating to the learning processes. After another round of personal meetings there was another plenary to discuss the declaration of intent (see the Chap. 12) and the evaluation procedure, including the presentations' format.

The students' investigations varied in their methods of inquiry and in the sources of information they relied upon. Quite a few of them looked for academic sources. For example, a pair working on the notion of play studied Wittgenstein's concept of language game, and a student working on creativity read Ken Robinson's books. Many others interviewed specialists, other preschool teachers (What do you think about…), their husbands or friends and even their kindergarten children ("tell me what I am for you…"). Still others were inspired by a TV program or YouTube film. Some used autobiographical narratives or recalled family stories related to their investigation.

The students preferred to express their learning in one of two ways: in cohort A, most of them wrote academic papers, and the minority favored a class presentation. In cohort B the same forms of presentation were selected but with reversed preferences. The concluding 2–3 meetings were devoted to their presentations and to the students' and my summary of the course. The students who preferred to deliver a class presentation devoted them to issues such as: presenting their findings; using their classmates to broaden their findings (what do you think of…?); reporting on their learning journeys, or describing how the investigation influenced their practice.

In both cohorts, one of the course's highlights was the students' discovery that what happened to them in the course can serve as a model to what they can perform with their pupils. This insight was expressed in the concluding plenaries as well as in their written personal reflections.

At the end, most of the students gave themselves an A in their assessments. This is fine with me, because I endorse a criteria-based evaluation strategy. If this is problematic from the institution's point of view, it is possible that the students' self-evaluation will constitute, for example, only 80% of the total score (it is much better, if possible, to have a pass–fail score in such a course).

## From the Students' Reflections

In both instances of delivering the course, the students entered the process full heartedly. Ora (student; cohort A) recalled that "at the beginning of the course you [the teacher] said: 'Since I know how to teach in a conventional way, I have chosen to let you learn by yourselves about yourselves'". "For me", she continued, "it was a very significant saying, which changed the models of learning I had been acquainted with till then."

Almost instantly the students wrote their CSs, which at first sight seemed to them to be simple and obvious. They soon discovered that their statements were question-begging, full of platitudes and clichés. When they realized it, they felt confused, "angered and frustrated" (Ora), since this ongoing process questioned the students' firm beliefs. Gale wrote:

> I wrote a statement which seemed to me, at the beginning of the process, very meaningful. I felt that I had chosen a statement which represented me and my educational credo as a kindergarten teacher. I was very self-confident. Gradually, following the lessons and the way you lead us, I began to ask questions which raised doubts about choosing the statement… You allowed us to change the statement, but I wanted to stay with it and confront the challenges it evoked. At the same time, I understood that if it had aroused so many questions, I had to examine myself. I felt frustrated about doubting myself…

This confusion could last quite a long time:

> For me, the process was very complex. If I compare it to a roller coaster, I was in many ups and downs. I think that it was only in the final three lessons that I understood what was going on… (Lisa)

But the initial frustration was gradually replaced by the feeling of "I can deal with it". In Dalia's words: "The feeling was that we were hanged upside down, while being strongly shaken… A kind of shaking, but an enhancing and a formative one… which had positive outcomes". Sherley agreed: "The confusion led me to keep searching and finding answers. I have learned about myself that I can learn by myself and evaluate what I have done. Though it is not easy, and sometime frustrating, it is possible".

There were other insights the students had learned about their learning. For example, Sima learned that she has "…to be accurate in order to be able to go deep into the subject I decided to investigate…" And Mina reflects on how she was influenced by the process to become more capable of dealing with it:

> My CS was "For me, being a kindergarten teacher is the ability to change". Following the class dialogue, I criticized my CS, as I understood that it is "too vague", and I wasn't sure that I understood what I wrote. What is "to change", whom do I want to change? How you change? … At that phase I understood that I was capable, as a learner, to criticize myself, and I did change my CS to something which better fitted me.

The students' reflections also indicate that in addition to capacity building, they have developed their learner agency in a nonlinear process. Thus, all the heutagogy principles discussed in previous chapters (see Chaps. 1, 5 and 6) were realized. For example, Haviva says that:

> Today I am much more self-confident while searching resources. A world of trust in myself, that I am, as a learner, able to find out what interests me, and focus my thinking on it. And I am mature enough to self-conduct the evaluation of and the reflection about the process.

Mali generalizes: "I believe that everybody has the capacity for creative and critical thinking…"

The attempt to deal with the CS was highly meaningful to the students. The struggle to express exactly what they have in mind and what they feel about it energized their learning. Moreover, they found that vagueness is not necessarily negative:

> At the end of the process, which began with feelings of anger and vagueness, I see a bright sun and I have an understanding that vagueness is sometimes the brightest thing, and that I am capable of being an independent learner. (Mali)

The students also realized that there is no one "correct" CS, and that their classmates can be productive sources of knowledge. Mor reflects:

> During the entire course I listened to my classmates and received clarifications for my questions and wonderings from them. I discovered, each time anew, that, like myself, they also underwent a process, and this reflected to me that I have really experienced something. Listening to all the other sentences I felt satisfied with my CS, but at the same time I felt that something is wrong. I felt that I should have written more things… At the end I decided that my CS is good enough and that I shouldn't change it.
>
> Each new examination of my CS (For me, being a kindergarten teacher is becoming part of the children's life where each of them is a whole world, being a mother to them, an educator, and a meaningful leader") brought me to a different place. In each meeting you told us to think if we would like to modify the CS. I rethought it, wanted to change it, but at the end I stayed with it. I felt that something is both wrong and right. The CS bothered me, but I felt that it captured something important. It was only at the stage of preparing the presentation that I understood the process and modified my CS to "For me, being a kindergarten teacher is being motherly for the children" [Omitting the rest of the original CS]. Only then did I feel that I understood what it is for me to be a teacher. …
>
> I decided to give a class presentation. I thought it would be the best way to describe the process of learning myself which I had undergone. I hate technology. To prepare a Power Point presentation was a challenge for me. I had to go outside of my comfort zone. During the presentation I felt that my CS was becoming more and more precise. While formulating it before the audience I realized that it was exactly what I felt… I felt very excited because the presentation disclosed a very private and personal process.

Shira's relatively long reflection demonstrates the learning process and its impact:

> I had never learned that way before. You were successful in inspiring me to think about the way I educate the next generation.
>
> In the first lessons I felt like being on a small boat in the middle of the sea, without knowing my destination. A very short sentence caused me an inner agitation. I didn't understand why other classmates took it so lightly while I was going around and around myself, full of doubts about how to formulate my CS. … I was unable to choose my way.
>
> Based on your questions, I recognized that I was torn between two ideals. On the one hand, the child is at the center, and I want to do everything possible for him. On the other hand, my chosen sentence was "…to lead the children in all the domains" which reflects the "I know where to lead them" attitude, which I favored from the first lesson. I understood that I had

> to choose between these rival attitudes. I prepared a checklist to see whether I had enabled the kindergarten children to do whatever they want. Of course, there were some moments in which I did give them full freedom, but usually they did not have an option to choose the daily schedule, e.g., whether they would play or sit in a plenary. I understood that the second attitude directed my activities. Thereafter, I expressed my CS quickly and assuredly – I am a messenger of society, I teach them what society requires…

The next sentences of her reflection detailed a triple-loop step:

> It was interesting for me to discover why I had chosen this attitude. Was it my background (the family and environment I lived in) which influenced my educational approach? Hence, I decided to investigate myself, to ask my relatives (parents, siblings, husband, grandparents). I discovered that for me and my family, society had always been of utmost importance… [Maybe because] my parents were Holocaust survivors…. I had been within rigid social settings my whole life… I couldn't live without them. Otherwise I would get lost. I learnt that I needed to be in a structured environment, that I had to know the rules, know that I was in control.

At last she understands that:

> My difficulty with this course was that I didn't know what was expected of me, what would be the course's product. The course required that I step out of the box. In retrospect, I now understand that the product is not as important as the process I experienced during the entire course…
>
> …I am thankful for the opportunity to recognize myself anew, for the possibility to learn what I want to know about myself by myself. Thank you for causing me to run around with so many thoughts about myself. Because of you I was flooded with feelings of anger, frustration, maybe some disappointment in myself (that I still hold the mission-oriented attitude), but also excitement and joy… as I learned that frustration challenges me and brings about further learning.

This insight had practical implications for her:

> I can now design a much more flexible environment in the kindergarten, a more empathetic, inclusive atmosphere… according to the personal, changing needs of the kids and their surroundings.

This reflection presents an important feature of the students' learning. They were much more interested in revealing the connections between their CSs and their belief system, their practice, and their life than in the semantic meanings of what they expressed. As one student attested: "The process I underwent caused me to look at the children differently" (Adi). Hence, their learning yielded more relation extraction than conceptual generalizations (see Chap. 2).

A different aspect of the learning process was typical of students who preferred to learn in pairs. In these cases, the need to sustain a dialogue, to consider the other point of view and to compromise, added to the CS comprehension:

> After many discussions and disputes we arrived at a CS which was a combination of our thoughts. It reflected the attitudes of both of us. We decided to investigate the notion of curiosity together. …We learned a lot from working in pairs… Two assertive women, let go, opened their mind, walked out of their comfort zone…
>
> We decided to work with Gale. The process was not easy, and required each of us to trust each other, to compromise, to listen, to be tolerant and accurate and to leave our comfort

> zone… No doubt that I was surprised. The process required of me to be self-disciplined. It required creative and argumentative thinking… (Dvora and Shlomit)

In their reflections, the students also pointed at my (the teacher's) role in their learning. Above all, it was a question of trust for them. In Shira's words:

> You trusted us and made us believe in ourselves, as those who know what is best for us in the process. You gave us the feeling that you know what you are doing and that everything will be okay. Your assurance reassured my feeling of being capable…

Knowing that there is no correct CS that the lecturer favors made the students feel secure and enabled them to challenge their ideas instead of defending them at all costs.

At the end of the course, they found that it had been their "most difficult course". It "opened their eyes", and they learned because "they wanted to", not because they "had to". One of the students, rephrasing an old Hebrew proverb ("It is the same lady wearing a different coat" [meaning that nothing essential has changed]), remarked that after the course she is "a different lady wearing the same coat".

A year after (cohort A) and at the end of the course (cohort B) the students were asked two questions by the head of the program: "Next year, what do you suggest to change about the course?", and "What do you suggest to retain in it". The answers of the two cohorts were similar. Only one of the students clearly disliked the course and the teacher. She was bored and could not understand the purpose of the course. She recommended replacing the course's teacher.

All the other students' comments were highly positive. They appreciated the novelty of the course and suggested preserving it as part of the program. More specifically, they liked the way the teachers' questions led them to self-determined learning and to learning about themselves as learners. They indicated that the personal process of clarifying the CS made their learning focused and meaningful. They emphasized that they had learned because they wanted to. They mentioned that being independent made them responsible for their learning, making it free of considerations of scores and answers that are "correct for the teacher". They liked the fact that the course was process-based and that the process was meaningful to them.

The students liked the idea that they had chosen their own way to present their knowledge. They appreciated that I had enabled them to discover things about themselves and their profession. They further mentioned that they felt trusted, which had an empowering effect on their learning. They insisted that the idea that the teacher does not possess the knowledge gave them a model for their teaching activities.

From an intellectual point of view, the novelty of heutagogy challenged them. They had to think in a different manner. The issue of self-assessment repeated in many of the students' remarks. They found self-assessment to be difficult though meaningful.

They also had some recommendations for improving the course. Some of them requested more personal consultation meetings (instead of "too many plenaries"). They asked for a more detailed explanation about the heutagogy process at the beginning of the course. They said that the vagueness of the first phase made them nervous, because heutagogy was completely unfamiliar to them, and suggested bringing to

class students with prior heutagogy experience. Still others wished for a more detailed exposition of the philosophical aspect of the course.

## Summary: My Reflections

The statement-based course was student-centered in both its content ("for me…) and its learning process. Similarly to the dilemma-based case (see Chap. 12), for the students of both cohorts it began with a phase of vagueness, confusion, and uncertainty. It ended with an "a-ah" experience of almost all the students, as they felt much more confident in their capacity to deal with uncertainties. One of them reflected that "…the place of the confusion is the place of the change". I agree.

The learning path resembled a star-type journey (see Fig. 3.1). They "left their nest" and, going back and forth, tried to capture the significance of their CS to their personal and professional identity and to their practice.

Compared with the dilemma-based courses, described in Chap. 12, the students' learning was more star-typed and less mesh-typed. The CS approach is, perhaps, more focused on the range of conceivable "where to go" possibilities that the students could consider.

I also find that the CS type course was more meaningful to the students than the dilemma-based type. Dealing with personal and professional identity, it was more relevant to their professional career stage than to that of a prospective teacher, who might be more interested in dealing with interesting dilemmas that require somewhat more theoretical orientation. The students in the statement-based courses really wanted to know who they are, while the dilemma-based course was somewhat more remote from the students' experiences as prospective teachers.

And maybe the structure of the CS courses, which was a little more scaffolded, fits the students better. By scaffolding I mean that the students tacitly understood that I expected an almost weekly correspondence or meeting with them. This not only helped them to organize their thoughts but might have also had a motivational force. In this specific course, I did not mind the relatively small amount of academic reading but a requirement to read several relevant papers of their choice may be added.

## Similarly Designed M.Teach Course: A Very Brief Description

A different setting in which I experienced the statement-based course was within an M.Teach program (see above). What happened in the course was very similar to the M.Ed. courses described in the previous part of this chapter, so I will not repeat it. I will just mention the main differences between the two settings.

The M.Teach course comprised 15 students preparing to be teachers in middle schools. None of them had previous experience in teaching. The course was delivered in their first year of studies. The CS was: "For me, being a teacher is …"

In the M.Teach course the learning was much more "theoretical" in its content. Lacking practical experiences, the students turned to academic papers as their main knowledge resources. Accordingly, all the students, except one, preferred to write an academic essay as their way to present their learning. Another difference was that the M.Teach students barely used the e-mail correspondence option.

Though interesting, these differences can be explained as being context-dependent, and they reveal that the same heutagogy type course can be delivered in slightly different settings. The students' reflections revealed similar reactions toward the content and the process of their learning, and most of them attested that the course modified their perception of the teacher's role.

This course shares with the M.Ed. course the same key findings:

The students were interested in revealing the connections between what they have learned in the process with their system of beliefs, life, and practice. At first, they discovered that their ideas were question-begging, full of platitudes and clichés. They felt confused. The initial frustration was gradually replaced by the feeling of "I can cope with it".

The students learn about themselves as learners, manifesting triple-loop reflections. They emphasize that the teacher trust in them was essential: it makes them trust themselves, the teacher, and their school students. To conclude, this case can be seen as another confirmation regarding the impact of the statement-based type of heutagogy course on the students' learning.

# Chapter 14
# Discussion of the Case Studies




**Abstract** In this chapter we discuss the case studies presented in the previous chapters and compare their characteristics. Thereafter, we propose a critical analysis of the findings.

## Key Findings of the Case Studies

The previous cases yield the following common findings:

- Students report that at the first meeting they felt confusion and frustration which subsequently had been changed to an experience of genuine learning. They felt confused. However, the initial frustration was gradually replaced by the feeling of "I can cope with it". Students succeeded to cope with vagueness using it as an opportunity for deep thinking. However, they expressed difficulties in the self-evaluation process.
- Learning was nonlinear. Students experienced wandering when trying to find what and how to learn (see Chaps. 5 and 6).
- Students underwent a process of deep learning: Their readings, being self-initiated, were more interesting to them and lead them to meaningful insights about the course content and themselves.
- Students took responsibility on their learning. The courses enabled the satisfaction of the three SDT theory basic needs (see Chap. 4).
- Students emphasized that the teachers' trust in them was essential to their learning processes: it made them trust themselves, the teacher, and their own students. Trust encouraged a dialogue between the teacher and the students and among the students themselves (see Chap. 2).
- The significance of the learning process is sometimes recognized long after the course is finished.
- Students performed double and triple-loop reflections. They were interested in revealing the connections between what they had learned in the process with their system of beliefs, life, and practice (see Chap. 5).
- Students reported using heutagogy in their professional experience.

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We did not find any significant findings which refer to only one or two of the courses.

## Comparison of the Cases

In Chap. 8 (Methodology) we ask three research questions which can now be addressed;

(a) What are the characteristics of heutagogy courses with regards to their different design, their different content, and their different settings?
(b) What are the impacts of these characteristics on the learning experience of the students? How did they affect the students' insights, feelings, skills, and capabilities?
(c) What can be learned from the answers to the above questions on heutagogy in higher education in general, and in teacher education in particular?

### *The Characteristics of Heutagogy Courses*

The main characteristics of the heutagogy courses are summarized in Table 14.1:

As seen from Table 14.1, the courses (cases) were different from each other in their lecturers, types, design, content, and modes of evaluation. They were also different with regard to their institutional external requirements, the students' population and background, and the academic degree. Nonetheless, they were similar in the stages of learning, in the content of the students' reflections, and in the place of the dialogue between the lecturers and the students. Some of these points merit further elaboration.

### *Students' Background and Record of Studies*

The university BA students, and especially those who study psychology or sociology, and the M.Teach and M.Ed. students wrote more expanded and deeper reflections than the B.Ed. Youth Cultures students, although this might be explained by the intensive character of this course.

Many of the students, from all the courses, expressed the wish that they would had learned in this method all their lives.

Some noticeable differences were found relating to the students' background cultures, as more Arab-Bedouin students reported a difficulty in getting used to learning autonomously and in exercising double and triple-loop reflection. Some of them wrote that they had experienced hardly any autonomy in their schools, and had never before written any reflection.

**Table 14.1** Characteristics of the courses

| Course | Cognition and education | Youth cultures | *Phronesis* | Ethics in education | Early childhood |
|---|---|---|---|---|---|
| Lecturer/s | Amnon | Amnon & Rakefet | Amnon & Smadar | Shlomo | Shlomo |
| Institution | BGU | Kaye | Kaye | Kaye | Kaye |
| Program | BA | B.Ed | ACE (postgraduate TE) | M.Teach | M.Ed. |
| Duration | One year—elective | Intensive five consecutive Fridays—elective | One year—obligatory | One semester—obligatory | One semester—elective |
| Students | 62 | 35 | 20 | 15–28 | 14–17 |
| Demographics | 95% Jews and 5% Arabs<br>90% females | 80% Jews and 20% Arabs<br>90% females | 50% Jews and 50% Arabs<br>All females | 75% Jews and 15% Arabs<br>About 25% females | 80% Jews and 20% Arabs<br>All females |
| Previous heutagogy experience | 15 of the students | None | All: some elements of autonomy | None | None |
| Types | Content-based | Content-based | Practice-based | Dilemma-based | Statement-based |
| Stages | • Exposure<br>• Self-learning in groups<br>• Self-informative evaluation<br>• Presentation | • Introduction to the content and the process<br>• Self-learning in groups<br>• Self-informative evaluation<br>• Presentation | • Introduction to the process<br>• Self-learning in groups<br>• Self-informative evaluation<br>• Presentation | • Introduction to the content and process<br>• Declaration of intend<br>• Self-learning<br>• Presentation and self-evaluation | • Introduction to the process<br>• Declaration of intend<br>• Self-learning<br>• Presentation and self-evaluation |
| Modes of presentation | Class presentation | Class presentation | Conference and class presentation | Students' decision | Students' decision |
| Assessment requirements | Numeric grades | Numeric grades | Pass/Fail grades | Numeric grades | Numeric grades |
| Type of evaluation | Teacher determined | Blended evaluation | Teacher determined | Student determined | Student determined |

Many of these students expressed the need for a more structured course design, including detailed and explicit instructions about what and how to learn. In addition, the language barrier may be seen as another difficulty to these students, as Hebrew is their second written language. These findings elicit the issue of the PAH continuum to which we'll return below. Typically, in each of the courses there were one or two students who didn't want to "play the game". They opposed heutagogy and wanted a "regular" teacher in a "conventional "course" (e.g., see Chap. 9). Clearly, heutagogy do presupposes students who are open enough to experience new ways of learning and are ready to wander in the troubled sea of knowledge. We will return to this problem in Chap. 16.

### *Number of Students*

The Cognition and Education university class was the largest, with more than 50 participants, while in most of the college courses there were less than 25 students. For Amnon, it was one of the reasons to ask the university students to manage their self-determined learning in groups of 4–6 students. Some students wrote about the advantages of the group learning, while others complained about it, believing it would be better to learn alone or in smaller groups.

For the smaller class cohorts, we allowed the students more autonomy to decide whether to learn as individuals or in small groups.

### *Duration*

There were three types of course duration: intensive course (Youth Cultures), semester course (Ethics in Education and Philosophy of Early Childhood), and one-year course (Cognition and Education and *Phronesis*). The relatively short intensive Youth Cultures course did not enable an ongoing reflective process as did the other courses. The shorter timeframe, which prevented a continuous process, can also explain the students' shallower final reflections. However, we feel that the intensive course had the advantage of promoting the students' motivation and enthusiasm to learn. With regard to the year-long course (*Phronesis* in education) we found it to be too long. Both the students and the teachers seemed to loose momentum during the learning journey. We do not find the effect in the (Cognition and Education) yearly course which has been divided into two distinct subjects (attention, perception, and memory (1st semester) and higher order thinking (2nd semester).

## Aims and Types

The aims of the courses were varied, and they were reflected in the type of the course.

Amnon defined his aims in a general way: to study the courses' subjects (e.g., "Youth Cultures" and "Cognition and Education") and to improve the students' teaching practice ("*Phronesis*"). Hence, he advanced the content-based and practice-based types of course.

Shlomo defined his courses' aims more concretely. In the "Ethics" course, he wanted the students to understand that the teaching profession has an essential ethical dimension, and to explore its relevance to their day-to-day work. Hence, he preferred the dilemma-based type of course. The aim of the "Philosophy of Childhood" courses was to enable the students to formulate and criticize their own account of their professional attitudes. Therefore, he used the statement-based type of course. In both courses he did not design the courses as content-based ones.

These differences were reflected in the slight variation of the learning processes. For example, Amnon insisted on a class presentation session, while Shlomo enabled the students to choose their own way of demonstrating their knowledge (e.g., submitting a paper).

## Course Content

The students' reflections indicate that the course content did not influence their reaction to heutagogy, although the students of the "Cognition and Education" and "Ethics in Education" courses, who were not well familiar with these subjects, expressed their need and wish to learn more about these subjects directly from the lecturers.

## Students' First/Second Experience

Some of the students had previous experience with heutagogy. Amnon's students, who had already taken heutagogy courses, wrote that they attended the course because of the positive experience they had in the previous courses. There were also students who had participated in previous courses that provided relatively high autonomy. These students reported greater motivation and less anxiety about the initial stages of confusion and uncertainty than other students. Some of them reported greater enjoyment and better time utilization in the later course. The "Cognition and Education" yearly heutagogy course was divided into two semesters. We found that the first semester helped the students gain experience that was helpful to their learning for the second semester.

## Stages

Despite the differences between the courses we found that they used a similar design. All of them began with a preliminary stage, continued with the main stage of self-determined learning and ended with presentations of the learning and evaluation stage. The major differences were within each stage.

**Preliminary stage**
Amnon began his courses with one (in the intensive course) to five (in the "Cognition and Education" course) plenary meetings to expose the course subjects to the students in order to present main concepts and principles, evoke the students' curiosity, and expand the number of students alternative topics to learn.

Similar to Amnon, Shlomo devoted the first one to three meetings in his dilemma-based course to exposing the subject, its main issues, and implications to the students. He began the statement-based course by asking the students to complete a statement such as "For me, the child in the kindergarten is …" This task led the students directly to self-determined learning.

**The self-determined learning stage**
Amnon encouraged the students to learn in groups in order to exercise teamwork skills. Shlomo did not interfere with the students' choice on whether to learn as individuals or in small groups in the dilemma-based course. In the statement-based course, even though the self-statement encouraged each student to enhance his/her professional identity, few pairs of students decided to work together.

Following the idea of learning in *Havrota* (see Chap. 7) and our case study findings, we understand that for some students the contribution of the group and its practice is important for meaningful learning. In addition, when a course has many participants (above 30 students), it is necessary to work in groups so that the lecturer is able to facilitate everybody's learning.

Some of the consultation meetings with individuals or groups were planned and initiated by us in advance, and some were requested by the students. Not all the students used all the opportunities to consult with us, preferring to exercise more autonomy. Both of us encouraged the students to cope with their difficulties and challenges by helping them to clarify their intentions and needs, and by asking them questions for further thinking. Both of us avoided giving advice as much as possible.

Each of us chose a different way to facilitate the students' self-navigation in their learning journey. Amnon developed a self-formative evaluation to encourage the students to develop their own self-expectations of the learning process and its outcomes, in order to help them to direct themselves.

For the same aims, Shlomo developed various kinds of "declaration of intent" with the students. Most of Shlomo's students' questions and insights were collected by a mass e-mail correspondence during the self-learning process.

**Presentation of learning**

Both of us devoted the final meetings of the course to the students' presentations of learning and provided them with a lot of autonomy to decide what and how to present. Both of us rejected the students' usual request to tell them in advance what they are required to submit at the end of the courses. We asked them to consider what and how to present toward the end of the learning process.

However, we each constructed different frameworks for the presentation stage. In Amnon's courses, all the students were required to present publicly and for the same duration (7–10 min.), with each group or individual having the option to present whatever they chose. Amnon challenged the students by asking them to present in any way that would evoke the curiosity of others about what the presenters learned. Shlomo allowed more autonomy, as his students could decide whether to present publicly or not. In all cases, most of the presentations illustrated the students' creativity and enthusiasm (e.g., using games, playing short dramatic sceneries, creating physical models).

In addition, the class presentations were not only a delivery of knowledge. In many cases, the students used the class plenary to continue enhancing their learning (e.g., through collaborative class learning).

## The Reflective Process

High-order reflection (double and triple-loop reflections) is considered an important element of heutagogy (see Chap. 5). Each of us developed ways to encourage the students to write such reflections.

Amnon instructed his students to write ongoing self-reflections, which described and reflected on their personal learning journey in private diaries. It seems that the formative feedback given to the students on their reflections help them move more deeply into the process (e.g., moving them to more loop learning and triple–double).

In addition, when the self-learning was conducted in small groups, each group was asked to write a group diary that included a description of the milestones of their learning process. At the end of each course, the students were instructed to write a personal final self-reflection that emphasized the meaning of their learning.

Shlomo asked his students to write self-reflections only at the end of the course.

## Evaluation

**Institutional grading constraints**

The university course and most of the college courses required grading the students with numerical scores. The *Phronesis* course required grading the students with

binary "pass or fail" grades. We did not find in the students' reflections or in presentations any significant differences which are attributable to the requirement of having numerical scores.

Heutagogy, as discussed in Part I, includes self-evaluation of learning by the learners. This is not a conventional academic way of assessing or evaluating students. Therefore, each of us had to take into account different setting constraints and to consider different degrees of freedom in order to decide how to cope with the gap between heutagogy and conventional requirements.

In the "Cognition and Education" course, Amnon evaluated the students' learning process and its outcomes. In the "Youth Cultures" course, the students were invited to grade themselves and to justify the scores. It was a problematic task for them, so Amnon and Rakefet had to be more explicit about the possible criteria that might be used for such an evaluation. In the *Phronesis* course the grades were "pass or fail" and the students did not conduct any formal self-evaluation.

Shlomo asked his M.Teach and M.Ed students to grade themselves and to justify their grading. Each one of them had to report on the criteria used to evaluate himself/herself and the requested score based on these criteria. Shlomo managed some discussions with the students to decide about the final score in cases of conflict.

To conclude the last sections, the comparison between the cases show that in general Shlomo's courses were less structured and more adherent to the heutagogy spirit than those of Amnon.

## The Impacts of These Characteristics on the Students

The courses were learner-centered. They were nonlinear and stimulated deep and meaningful learning by wandering within star or mesh networks. The students' creative and diverse ideas of what and how to learn can demonstrate the effect of these courses. The courses invited collaboration among students and yield double and triple-loop reflections. They enabled the students to develop their basic senses of autonomy and self-efficacy (SDT), and to enhance their agentic engagement (see Chap. 4).

**Changing motivations**

The students' reflections indicate that students modified their aims during the courses. On the face of it, the primary aim of our students was to earn a high grade in the course. However, along the way the students developed a new aim: to experience different learning and derive personal meaning from it. Some of them even expressed their wish for learning for its own sake. The students who studied in groups also developed social aims such as taking a significant role in the group work, to express their views, and to contribute to their groups' successes.

## From Students' Voice

The most general finding was that the students' reflections show almost the same feelings and insights albeit the diverse characteristics of the courses. This finding strengthens the validity of heutagogy influence on the learners' experiences.

### *Strengths and Opportunities*

The students' reflections expressed the following strengths and opportunities:

a. General feelings of promoting and strengthening their sense of agency, self-autonomy and self-efficacy (SDT basic needs) by taking responsibility for their learning. These feelings were contrary to what many of them had experienced in the academic setting in other courses.
b. The necessity to cope with vagueness helped students develop as independent and self-determined learners.
c. General feelings of meaningful and deep learning experiences were experienced by the students.
d. Fuzzy and uncertain situations provided an opportunity to be creative.
e. The joy of learning driven by curiosity and wandering through different kinds of learning resources was experienced by students.
f. The power and opportunity of the self-reflection loops to enhance self-awareness and self-identity.
g. Positive feelings about the teacher's changing role: from instruction to facilitation. The students stressed the dialogical aspect of the relationship with the teacher, and the trust the teacher gave them as learners.
h. The power and the opportunity of small group learning.
i. A wish to continue to study the topic.
j. A wish to apply heutagogy in their own practice.

### *Difficulties and Challenges*

The students' reflections also expressed difficulties and challenges:

a. Feelings of helplessness and uncertainty, which characterized the initial stages among students with no prior heutagogy experience.
b. Objection to an unfamiliar way of learning. About one or two students in each course rejected heutagogy altogether. They felt paralyzed and claimed that they did not learn anything and preferred a traditional course.
c. Difficulties in writing reflections and especially self-formative evaluations and final self-evaluations.

d. The moral dilemma of the students of whether to avoid putting much effort in their learning, especially when they had many tasks in other courses.
e. For group work: Feelings of injustice when the workload was divided unequally between group members.
f. None of the reflections generalized the experience of autonomy and emancipation to the context of a democratic society or democratic education. It seems that this transfer from the learning context to society in large is not trivial and may require a deliberate intent (see Chap. 16 for a further discussion of this point).

## What Can be Learned from the Answers to the Above Questions on Heutagogy?

According to the above findings, given that the external institutional requirements are met, successful practice of heutagogy depends on the teacher who is responsible for the course and on some characteristics of the learners' varied background and the learning process. From the above description, we can now indicate six necessary interrelated conditions for successful a heutagogy course.

**The teacher's characteristics include**
**Self-confidence**:
The teacher has self-confidence in his capability to exercise heutagogy without feeling that he loses control or becomes irrelevant to his students. He shows it in his actions during the course, and in his dialogical relations with the students. As one of the students says, her teacher had moved to the background without abandoning her.

This is especially important in the first phases of the course in which the students, usually, lose their self-confidence because of the vagueness of the unfamiliar learning process.

**Flexibility**:
Heutagogy is characterized as a nonlinear process of learning. Hence, it cannot be planned in advance and necessitates many changes in the attitudes and actions of the relevant partners. It presupposes that the teacher will be flexible enough to "leave his nest" and cope with unforeseen and unexpected situations.

**Trust**:
The teacher trusts the students, in the sense that he believes in their ability to be self-determined learners. This means that the teacher does not act as an expert who knows what the student needs, "but lets them learn". He seldom instructs them what to do and serves as a "critical friend" to their learning process. He is a partner to their wandering process and learn with them and from them.

Trust is a reciprocal relationship. It is fundamental to forming a dialogue between the teacher and the students (I-Thou relationships, see Chap. 2 and next subsection), in which the student becomes the focus of the educational process.

Perhaps the students who opposed heutagogy had inherent trust difficulties, making them incapable of trying heutagogy.[1]

These three main teacher's characteristics (self-confidence, flexibility and trust) coincide with the personality traits mentioned in Blaschke & Hase (2016, p. 36). As mentioned by them, teachers as "learning leaders … need special abilities to cope with the turbulent environment they inhabit, as well as the challenges of twenty-first-century learning such as those espoused by heutagogy".

While we emphasize the teachers' general characteristics, Blaschke & Hase emphasize more concrete leadership attributes such as: law need for control, openness to experience, moderate of perfectionism scale, high stability (low anxiety) empathy optimism, flexibility to change, willingness to change own idea or believes, and willingness to empower others.

**The learning process includes**

**Dialogue**

Essential to the learning process is the dialogical relationships between the teacher and the students. The dialogue enables the teacher to be "with the" students, he is attentive to them and listen to their voices. It enables the students the "freedom to learn" and to feel free to wander, get lost and make mistakes. To increase the intrinsic motivation of the students to "know" something, their aims have to be discussed.

The teacher creates an empathetic climate in which the students are invited to share their inner world (such as their hopes, dreams, feelings, problems, challenges, difficulties). Such a dialogue helps create a process of *Bildung*.

**Wandering**

We suppose that wandering is an essential ingredient of heutagogy because it is non-linear and enhances the learners' self-efficacy, agency, and capability. The students attest that learning through wandering had been meaningful for them because of the searching process itself. As one of the students reflected: "Each theory I read caused me to read more theories.… I felt I could continue reading more and more theories to help me deal with the dilemma. The more I read, the more confused I became" (see chap. 12).

**Reflective loops**

We join the previous scholars who found (see Chap. 5) that double and triple-loop reflections are necessary components of heutagogy. We stress the importance of these types of reflection to learning about the self and to ask the students to perform it explicitly. The self-reflection is also an eminent component of the students' self-evaluation processes.

[1] We thank our anonymous reviewer for this insight.

## Meeting Caveats and Objections

Our findings enable us to discuss some common caveats and objections regarding the characteristics of heutagogy as a teaching learning approach. Let's begin with the issue of PAH continuum.

**Scaffolding the learning (PAH)**
The students are diverse with respect to their capacity for self-determined learning. Hence, they need different scaffolds. Students who feel helpless and paralyzed as self-determined learners need more support to develop a sense of agentic self-confidence to cope with the challenges they face. By scaffolding we mean asking the students questions that will stimulate their thinking without providing answers.

Learning in groups can facilitate the process when some of the students feel more comfortable in such a learning environment. They can help their more concerned peers. However, working in groups can discourage the individual from being self-determined.

These findings indicate that the PAH continuum is not obligatory. Most of the students cope with heutagogy without being exposed to andragogy learning. Others need more teacher intervention to activate their learning journey. We shall return to this issue in Chap. 15.

**Shallow learning**
Another common fear is that students in a heutagogy course may experience shallow learning. They are especially prone to that in heutagogy, since the independent study may tempt them to avoid searching for valuable academic sources and be satisfied with easily accessible sources that may not require intellectual effort. Or they may decide to delay their learning and assign it a low priority. Furthermore, they may write shallow reflections that only describe what they did without discussing its meaning. Or they may write that they have invested effort or learned from many sources while choosing to do the minimum.

In spite of the above, the findings of our case studies indicate that most of the students experienced deep learning. This was evident, for example, in their chosen topics, the varied sources they found, their manifestations of passion to learn more about the topic even after the course ended, and in their interesting discoveries that sometime surprised us. These findings justify the trust we gave the students.

**Evaluation**
The issue of evaluation poses some critical questions concerning heutagogy. The very idea of having a given standard according to which the students should be assessed seems to be in opposition to the notion of self-determined evaluation, which is, by its very nature, subjective and process dependent.

In most of the courses the numeric score given to the students reflect criteria-based evaluation.[2] The students propose the criteria upon which they will be evaluated and

[2]For the notion of criteria-based evaluation, see for example: https://www.eva.dk/sites/eva/files/2017-10/Criteria_based_evaluations.pdf).

the indicators for meeting each criterion. The evaluation could be self-evaluation, teacher evaluation, or both.

We found that many students gave themselves an A grade, probably to get a better Grade Point Average (GPA). Nevertheless, the students say that they deserve the grade because they really work hard in the course and learn many new things. This may raise some institutional objections, but we believe that the learning process is more important than the course's final grade. We are more interested in the criteria they give for their evaluation and their justification. It is even possible to decide *a priori* that everyone will get A and ask each student to commit himself to what s/he will do to achieve it.

## Summary

In this chapter we summarized the main findings of our case studies. We dealt with three questions regarding (a) the characteristics of heutagogy courses; (b) the impacts of these characteristics on the learning experience of the students; (c) the implications to higher education in general, and to teacher education in particular.

For us, the most salient findings have been that **heutagogy is student self-determined but teacher-dependent**. It presupposes a flexible teacher who is ready and able to trust the students, to maintain with them a genuine dialogue concerning their wandering.

We, the authors, underwent a great paradigm shift in our role as lecturers. The change involved a deliberate modification from controlling and supervising the students' learning to releasing control and trusting the students and their capabilities to cope with challenges. We shifted from being lecturers, who have an uncontrollable desire to transfer their professional knowledge to the students, to being facilitators, who enable the students to perform their self-learning. We became designers of a heutagogy learning environment. Heutagogy is not student-dependent, in the sense that it fits the students we are working with. But there are students who need more scaffolding in their wandering journey because they are not used to such a learning process.

Another salient feature of heutagogy is that it is a process of *Bildung* (see Chap. 2). From the students' point of view, it begins slowly, hesitantly, full of vagueness and uncertainty. Gradually, it leads to meaningful, deep learning. They really feel self-autonomy and self-efficacy.

Heutagogy is content independent. We did not try it on math, science, or engineering courses, but O'Brian describes the "open science" initiative, (2013, p. 78, 81) and Matosuv experienced learning mathematics in a somewhat similar to heutagogy approach he called the "open syllabus regime" (Matusov and Marjanovic-Shane, 2017).

We also noticed that heutagogy is almost context independent. The context of the courses (its institutional; duration, degree, population etc.) have little influence on the students' learnning.

To enlarge the scope of our findings, the issues raised in this chapter will be further addressed by what we had revealed through the discussions we hold in the epistemic community of learning and practice (see Chap. 15) and by comparing heutagogy to another form of self-determined learning: the open and opening syllabus regime (see Chap. 16).

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# Part III
# Temporary Pier

# Chapter 15
# Toward a Paradigm Change: Building a Culture of Heutagogy




**Abstract** The first part of this chapter describes and analyzes a community of learning and practice of heutagogy, which included 12 faculty members in a college of education. The ongoing process is a heutagogical one, dealing with theoretical and practical aspects of heutagogy and its applications. The chapter describes the community's discussions and examines the professional development of its participants. The second part of this chapter presents a possible elaboration of the community of practice into an epistemic community, which is a crucial step in promoting a more general paradigm change in higher education.

## The Colleagues' Community of Practice and Learning

### *The Background*

Experiencing heutagogy requires a paradigmatic change with regard to teaching and learning in higher education. This claim was discussed in the theoretical part of the book. The case studies exemplify it with regard to both the students and the teachers' points of view. However, in the preceding chapters we dealt with heutagogy at the course level, which cannot by itself produce a paradigm change in higher education. Though it exemplifies such a change, it is very limited in its potential impact on the academic institution. Being an isolated island, it barely has any influence on the rest of the students' learning experiences.

For example, as can be seen from the case study described in Chap. 9 (Cognition and Education), Amnon's university course does not fit with the way the students learn elsewhere in their programs, so, meaningful as it might be, it remains an episode in their race to the academic degree.

Though the university authorities approved the use of heutagogy (in accord with Kenyon & Hase, 2013, p. 12), and even asked Amnon to present it to the "Unit of promoting teaching methods" workshop, this invitation had not been followed by further steps.

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But even if heutagogy had been the university privileged way of teaching–learning, its very characteristics raise a special problem for any "top-down" approach regarding its implementation. As we've seen in Chap. 14, heutagogy requires a teacher who is willing to experience it.

An authoritative dictate to become a heutagogy-teacher cannot succeed. It will lead to mechanical "cut and paste" behaviors which will miss the point. If the teacher, himself, is not a self-determined learner who has an autonomous personality and is ready to "let the students learn", the result will be some kind of "fake-heutagogy".

So, we face a problem. Heutagogy can only be advanced from a bottom-up strategy. But then, how could it revolutionize the entire field or even the institution in which it is exercised?

In the last couple of years, we, like other heutagogy supporters, presented it in many academic conferences, published numerous papers, and met a lot of colleagues. But we wanted to examine a more systematic way to advance heutagogy in higher education. One possible strategy can be exemplified by our own story of propagating heutagogy within Kaye College of Education.[1]

Being a teacher-education institution justifies the inclusion of heutagogy in the program as a "teaching method" which is legitimate and progressive. However, as no institutional decision can affect the faculty willingness to experience heutagogy, the idea had been to offer the faculty a journey toward it.

Shlomo became acquainted with the idea of heutagogy while preparing a state-of-the-art review of the literature concerning "Pedagogical aspects of ICT learning environments" (Back, 2017). Prepared in 2015 for the Israeli branch of World-ORT, it refers (pp. 86–87) to heutagogy as a promising way of meeting the needs of today's learners. At the years 2015–2016 Shlomo conducted a high-school principals two-year workshop for the Israeli branch of World-ORT, devoted to "future scenarios in education". One of his inputs to this workshop was a presentation of the idea of heutagogy (Soffer et al., 2016, pp. 20–21).

Having experienced this new idea, Shlomo approached Prof. Lea Kozminsky—a friend, colleague, and the president of the college. He informed her about what he had learnt and expressed the wish to experience heutagogy in one of his M.Teach program courses. They agreed to try it and conduct a case study to learn what will happen in the Ethics in Education course. Shlomo was the course teacher, and Lea his critical friend.

The result was a paper (Back & Kozminsky, 2016), which described heutagogy and the course (see Chap. 12). The paper, the first Hebrew publication on heutagogy, has been published in the academic e-journal of the college and gained many responses from faculty members who wanted to know more about heutagogy and to experience it. Amnon had been one of them and was willing to try it in the university as well. He saw it as an extension of his PBL courses.

Shlomo and Amnon continued the journey by presenting heutagogy in several faculty meetings. The discussions which followed aroused some interest in what "these two people are doing". At the colleagues' request, they initiated a community

[1] About Kaye College, see Chap. 8.

of practice and learning (Wenger, 1998) whose participants wished to learn about and practice heutagogy.

This initiative has been possible because of the epistemic culture (Knorr, 1999) of the college, whose faculty members are encouraged to develop their own pedagogical visions, to apply them in their teaching, and to study their impacts.

As we've seen in Chap. 5, such communities are "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger & Wenger-Trayner, 2015). But this notion is somewhat inappropriate to our context. Usually, it presupposes that there is already a core of knowledge that is transmitted from experts to novices, so "that the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community" (Lave & Wegner, 1991, p. 29).

In the community we have formed there are no heutagogy experts, although the two authors have some heutagogy experience and serve as the moderators of the group. We, all the community members, want to learn together what is heutagogy and how to cope with the theoretical and practical issues raised by it. Hence, we all are "novice-experts" in the sense discussed in Frilling and Turniansky (2016).

During the last three years, the community has gathered once a month for a 2 h meeting, attended by 8–12 participants. The participants teach education courses in the college academic programs, and four of them are also pedagogical mentors in the ACE program (see Chap. 11). Their academic teaching experience spans over 7–30 years, and most of them share disciplinary background in education, psychology, or philosophy.

During these years, most of the participants have practiced heutagogy in their courses, such as The Adolescent World; Multiculturalism in Education; Cultural Changes in a Technological World; and Research Methods.

The participants agree that the community's learning should follow the model of heutagogy. Together, the community has decided what to learn and how to learn it. We have opened each discussion by asking the participants to share some theoretical or practical issues or questions. In addition, the participants have maintained an e-mail correspondence to raise issues and questions and to share experiences.

The colleagues' workshop was audio-recorded and the data analysis revealed two central topics:

(a) Heutagogy as a theoretical approach.
(b) Heutagogy in practice in the lecturers' courses (e.g., difficulties, challenges, failures, successes, points of uncertainty, questions, and students' involvement as determined learners by reports and reflections).

Many issues discussed in the following sections resemble those discussed in Chap. 14. We readdress them again for two reasons. One, to show their resemblance to what we have found in our own cases. Second, to make it possible for the chapter to be read, as far as possible, as a stand-alone unit.

## The Issues Discussed

### *Theoretical and Conceptual Issues*

During the initial meetings, Amnon and Shlomo presented the main theoretical ideas of heutagogy according to Hase and Kenyon's books and articles. We also held a video conference with Lisa. M. Blaschke. Blaschke, who hosted us in Carl von Ossietzky University of Oldenburg, edited a book about heutagogy (Blaschke, Kenyon, & Hase, 2014) among her other publications. In the video conference meeting, she described her vision and shared insights from her experience in higher education settings in different countries (e.g., USA, Germany, South Africa).

Initially, in the community meetings, we discussed questions attempting to define heutagogy: What is the difference between autodidactic learning and heutagogy? And how does heutagogy differ from learning in an open university setting? Later, and especially while writing the present book, we introduced new developments and theoretical perspectives which helped us construct the expanded theoretical framework of heutagogy described in Part I.

The writings of Hase and Kenyon, Serres and Rogers were presented in meetings in order to raise theoretical issues. Some discussions were aimed at clarifying principles and theoretical concepts, such as wandering, triple-loop reflection, knowledge networks (bus, star, and mash), epistemology, SDT intrinsic motivation and the three basic needs, deep-learning, and meaningful learning.

Other meetings were devoted to questions such as: Is heutagogy the only way to learn in the twenty-first century? Is it the best way?

### *Practical Issues*

The community addresses the general question: What must a teacher take into account to practice heutagogy in higher education? Can lecturers integrate different learning methods and strategies, including heutagogy, in different contexts? Or is it a question of "all or nothing"? Is heutagogy suitable to all kinds of students? To all disciplines (how about mathematics, for example)? Is it appropriate in different contexts?

The community members suggest that any heutagogy teacher has to consider the following elements: the learning aims, the content, the learning–teaching process, the environment and the learning evaluation. For each of these elements, one can decide upon the degree of the student-determined level of learning. Most of the meetings were devoted to the participants' descriptions of their courses and the questions arising from their experiences in heutagogy practice.

### *Student Autonomy Versus Lecturer Control*

Some of the community members, who practiced heutagogy, felt like losing control, which was for them a new, unaccustomed, and uneasy experience. Heutagogy threatened their safety or comfort zone. They were concerned about the lack of control over the learning: "I don't know where they are in the process", "I need to see their eyes".

The central questions were: "Who is to decide about what? To what extent can the students be autonomous in their decision of what to learn, how to learn, what sources to use and how to present their learning and evaluate and/or assess it?"

The lecturers expressed a difficulty in giving full autonomy to their students or trusting their intrinsic motivation to learn and their capacity for deep-learning. They used to think that students cannot manage without their lecturers' control and instructions.

Different ways of coping with this concern were proposed and discussed. For example, the intimacy that characterized the short consultation meetings with individuals or groups was much more intense and meaningful for the student–lecturer interaction than the plenary meetings and enabled the teacher to know where the students are.

Some participants suggested using ongoing self-reports or individual or group meetings to control the quality of the learning in general and the quality of the learning sources in particular. This proposal yielded the questions of how many meetings to hold, what their frequency should be, and whether to dictate the content of the meetings or just to enable them.

Other major questions were: Can we dictate heutagogy to our students? What do we do if students do not want to learn by themselves? After all, if we force heutagogy on our students we denounce their autonomy to choose their way of learning.

Participants in our community proposed diverse ways to cope with the enforcement problem. They suggested, for instance, that the course be elective, and that the syllabus include an explicit explanation of heutagogy. Others argued that it is important for students of education to experience different kinds of learning–teaching approaches, including heutagogy, as part of their professional development, to allow them to develop flexibility and open mindedness. This, however, places the lecturer back in the position of the one who knows what is good for the students. Other participants claimed that students' objection to heutagogy might be a result of rooted habits, thus they must experience it to determine if it is right for them. We will return to this question in Chap. 16.

During the community discussions the participants were concerned with some particular issues such as the optimal duration of a heutagogy course: Should it be a one-semester course, a yearly course, or an intensive one? It was agreed that it is better for the students to experience more than one heutagogy course and to begin with a one-semester course, so that the learning process will be more dynamic.

## *What Should Students Learn and How?*

### Prerequisites of the Self-learning Stage

When teaching a disciplinary course, what should its preconditions be, in terms of the level and type of knowledge the lecturer has to expose the students to before getting into the self-determined learning? Some lecturers asked, "How can we ensure that students investigate meaningful issues relating to the course topic without any primary knowledge?" Others argued that if we, the lecturers, expose our students to great amount of information, we might prevent them the joy of self-discovery. On the one hand, students might be frustrated with their passive role in the learning when the lecturer transmits knowledge. On the other hand, they might be frustrated with their active role in self-determined learning when they don't know what and how to learn by themselves, at least in the beginning of the process.

### The Issue of Academic Rigor

Participants were worried about the academic rigor of the students' self-learning, highlighting another aspect of giving the students autonomy. Some lecturers felt that keeping a high-level academic rigor was challenging. They were troubled by this issue because their traditional attitude had been that the lecturer should be responsible for delivering the syllabus to the students, and for making sure that the students acquire the content.

They also asked: "Who should be accountable for correcting the misconceptions and mistakes the students construct during their self-learning?" This concern brought to light more central questions, such as: "Who should guarantee the academic rigor of the students' self-learning and how can the lecturer ensure it?"

Another aspect was the academic rigor of the resources that students collected and used during their self-learning. The participants asked: "How do we know they read enough? Can we make them read the core literature of the course subjects? Do all students have sufficient intrinsic motivation and skill to find reliable and valuable sources for their learning without our direction?"

Some lecturers argued that the dialogical "declaration of intent" with the students has to include the students' obligation to consult academic sources. Others suggested that the syllabus contains a formal requirement to read relevant academic resources.

### The Scope of the Learned Content

The following questions were raised: "If the students chose to learn only one part or aspect of the conventional course content, how will they complete the rest of it? Will they miss important ideas?" This issue raised the dilemma of quality versus quantity.

Some lecturers proposed allocating time for the students to learn from each other, in order to encompass all the topics.

A different attitude was presented by lecturers who understood heutagogy as an opportunity for deep-learning of one aspect of the course subject rather than the superficial learning achieved by covering many detailed aspects of the course in the traditional teacher-centered approaches. For them, to learn how to learn the subject is more important than to know all of its details.

**The Learning Process and the Extent of Teaching Structuring**

Some of the community discussions revolved around the level of structuring and scaffolding which the lecturers needed to supply during the self-determined learning. "To what extent must the lecturers direct their students? Should the lecturers give the students advice, explanations, or contextual information; or should they reflect the students' thinking? Should they merely ask provocative questions to help students to advance by themselves? Can the teachers let the students get lost, and to what extent?"

In this context, the concepts of getting lost and wandering were discussed. On the one hand, lecturers argued that it is important for students to understand that wandering in a mesh network of knowledge (see Fig. 3.1 and Chap. 6) demands their readiness and courage to get lost.

On the other hand, it seems that not all students are tolerant of that possibility or ready for such an adventure, possibly pushing them into a frustrated position of non-learning. One lecturer reported on a student that didn't find a subject to study until the final stage of the course, leaving her too little time to pursue her learning. We asked ourselves whether this was an indication of meaningful wandering or of avoidance of the learning process.

**Indicators of Deep-Learning: How Do We Know Whether the Students Experience Deep-Learning?**

Supposing that heutagogy encourages deep-learning, the lecturers suggested some indicators of such learning. For example:

1. When the students feel they have discovered something that surprised them, or found a new, unfamiliar perspective.
2. When students write or say statements such as: "I thought about it all week", "I'm pondering different ways", "I have talked about it with…." Additional indication is when students feel they have expanded their investigation outside of the course's boundaries.
3. When students find unexpected connections between different pieces of knowledge.
4. When the wandering process is followed by triple-loop reflection. Most of the lecturers reported the powerful effect of wandering and vagueness.

The lecturers reported that their own learning implement some of these points. For example, a lecturer transferred some elements from her heutagogy course (e.g., autonomy and reflection) to her other courses, indicating her own meaningful learning.

### What Should Students Present and How?

All the lecturers devoted the last part of their course to the students' presentation of learning. Some of the most common questions were the following: "Should the students present the knowledge they constructed or their learning process? How should they select the knowledge to be presented? What does it mean to present a process? Should all students use the same format of presentation (e.g., lecture, class presentation, poster, etc.)?" And, of course, "What are the criteria for a good presentation of the learning outcomes? Should we require a public presentation when a student prefers to submit a paper or another kind of presentation?"

One lecturer reported giving full autonomy to the students in deciding on the form of the presentation (see Shlomo cases Chaps. 12 and 13), including a paper, a slide presentation, a dance, a video-clip, a theatre scene, an article, a position paper, and so on. Others provided some structure and let the student decide what to present within it and how, and some lecturers gave a general direction (e.g., "the presentation has to raise curiosity among other students to learn more about the subject") (see Amnon cases, Chap. 9). An individual or group self-reflection was proposed as a required part of the presentation.

Another issue concerned the timing of the dialogues with the students about the presentation of their learning. Some lecturers reported discussing this issue with the students at an early stage, because the students wanted to know the end result of the course. However, these lecturers felt that in this case, the students put their efforts into what to present and how to present it instead of what to learn and how. Their learning was more task-oriented, like in PBL (project-based learning) when the project leads the learning process.

Some lecturers included an additional stage after the presentation of learning, which was devoted to retrospective discussions with the students on their experiences and outcomes (see Chap. 11).

### What Should Be Evaluated and How?

Questions about evaluation and assessment were raised in the community: "What to evaluate and/or assess? Should we assess the outcomes, the process, or both? What criteria should be used for the evaluation? Who is the evaluator: the students, the lecturer or both? Is it better to encourage peer-evaluation? What is the place of formative evaluation? If the course includes group learning, what is the part of the collaborative work in the evaluation or assessment? Do we miss the point of heutagogy if the evaluation or assessment is teacher-determined?"

Some lecturers described their difficulties in trusting their students' ability to evaluate themselves with or without defined criteria. They reported that most of the students gave themselves high grades because they needed high scores to continue their academic studies. Some thought that the students are used to calculating their steps according to practical considerations (to get a good grade), so an opportunity to grade their own work would mean that they probably will not experience meaningful learning.

The lecturers reported that they discussed the issues of evaluation and assessment with their students (individually or in groups). Some explained the source of the gap between the students' expectations at the beginning of the process (e.g., contract, formative evaluation) and their actual self-evaluation as a starting point to discuss evaluation. Some let the students determine their own grades following a reflective process, which was built into their learning, either with or without asking for justification. Some graded the students themselves, using different criteria (e.g., the progress of the learning, the rigor of the learning resources, or the quality of the presentations).

Two examples of specific questions and their responses: (a) Q: "What do we do when students' self-evaluation is significantly higher than the lecturer's evaluation? A: I tend to accept their evaluation, but it makes me feel uncertain;" (b) Q: "Have students ever asked to change the evaluation criteria at the end of the learning?" A: "When I told a group of students that they could perform much better on the criterion of 'being based on academic knowledge', they asked me to ignore this criterion and to judge them only based on their learning product. I agreed, but in the future, I will explain the students that they cannot change the criteria at the end of the process. What do you think?"

## *The Faculty Members About the Students' Voices*

A different aspect that the faculty members mentioned was the students' responses to heutagogy. Several students reacted negatively: "The course is not serious enough", "It's not for me", "You have to provide the knowledge. I came here to learn from you; that is what I paid for. This is not an open university".

The lecturers reported students' difficulty in initializing the process, which presupposes a different attitude for learning, requiring them to make decisions they have never had to make before. For some students it was hard to achieve a high level of conceptualization, especially when they described their learning: What did they learn? How did they learn? What did they understand about themselves as learners?

However, the lecturers emphasized that the majority of students said they would not have given up the first stage of vagueness and ambiguity, some describing it as a necessary condition for meaningful learning.

One lecturer felt that the "better students are getting better and the poorer students are getting poorer". She argued that only students with intrinsic motivation and learning capacity can cope with the challenge of self-determined learning.

## Our Reflection

The participants used the group as a community of practice that can support their heutagogy teaching experience. They expressed openness and motivation to learn from each other's experiences.

Using the community as a modeling for heutagogy was only partially successful. While the participants learned from each other, they did not experience self-determined learning within the community work. Research questions were not asked and suggestions to research and write together were not made. As a group, we did not read enough to expand the common knowledge and enable deeper discussions.

The same questions and issues were discussed repeatedly. New, unexpected questions were rarely raised. Furthermore, most of the discussions shifted from one topic to another in an associative manner, and while this illustrates a kind of heutagogy wandering, these ill-organized discussions suffered from lack of focus, depth, and order. We, the authors, believe we have to address these challenges.

We noticed that some of the participants are still looking for definite answers. Following the group discussions, more participants understand that there is no manual for heutagogy teaching, requiring them to expand the space of possible answers and insights as much as they can.

The transcriptions of the meetings also indicate the participants' tendency to consider us (the authors) as experts who have the correct answers and as accessible sources to learn from, placing us at the centre of the collaborative learning.

Despite these problems, we believe that the community has promoted the level of all participants' deliberation about heutagogy. Based on the participants' testimony, we believe that the community has enabled them to get acquainted with heutagogy and to practice it in their courses. Without it, they say, they would not have embarked on such an adventure.

The community's discussions reflect the participants' causal beliefs which elucidate the multiple linkages between policy actions and outcomes (Haas, 1992). They also demonstrate the attitude that there cannot be "a correct" solution to any given problem. However, not everything goes. There are some principles that should be agreed upon which should guide the activity. It is clear that the community was at the stage of trying to establish both its shared normative and principled beliefs and its shared causal beliefs (Haas, 1992).

## The Next Step: The Epistemic Community

Building a community of learning and practice is "internal" to the community. It does not entail an expansion of the knowledge created by the group to other possible agents. It still remains within its members. Hence, it is an inadequate tool to initiate a paradigm change in higher education. But we wanted to "spread the word" and make heutagogy known in the college and outside its borders. To this end we want

to propose a somewhat different model of epistemic community. To a first approximation, epistemic community is "…simply defined as group of knowledge-driven agents linked together by a common goal, a common cognitive framework and a shared understanding of their work" (Cohendet, Grandadam, Simon, & Capdevila, 2014).

We borrowed the notion of epistemic community from the international relationships literature. According to Haas (1992), the members of the epistemic communities share four traits:

(1) normative and principled beliefs (which govern the social action of community members),
(2) causal beliefs (resulting from their analysis of practices which then elucidate the multiple linkages between policy actions and outcomes),
(3) notions of validity (intersubjective, internally defined criteria for evaluating knowledge in their domain), and
(4) a policy enterprise (a set of common practices associated with a set of problems).

Haas (1992) remarks that the epistemic community members share intersubjective understandings; have a shared way of knowing; have a shared patterns of reasoning; have a policy project drawing on shared values; shared causal beliefs, and the use of shared discursive practices; and have a shared commitment to the application and production of knowledge.

While our community of practice dealt extensively with the first characteristic, the other ones are necessary if we want to establish

> a …distinct group of people who actively or intentionally form a network with the aim of creating and advocating certain types of collective knowledge in the intersection between research findings and policy making.

They are distinct because they "are concerned with the political and the epistemic; and with the social and the technical (ibid)".

Nerland et al. (2010) further emphasize that:

> Epistemic communities produce knowledge… based on scientific methods and approaches… This knowledge has to provide solutions to specific problems. Knowledge has to be useful, and a prime issue for evaluating success is the degree of policy receptivity (Nerland et al. 2010).

A distinctive feature of any epistemic community is its activist facet. As stated by Akrich (2010): "Scientific knowledge is not a means by which people can expect to improve their living conditions or receive acknowledgment for their prejudice, it is the main resource on which activists rely to assert their views".

In a similar fashion, Cohendet et al. (2014) compared the epistemic community to a middle ground level in a city architecture. It connects the informal underground level of creative individuals, which plays an important role in generating radical new ideas, with the "top layer" of a city, which "is articulated around the concentration of firms, research centres and laboratories". They explain that:

> The middleground contributes to the process of knowledge creation, by facilitating the codification of new knowledge …That is to say, the middleground is a necessary locus where spontaneity is progressively translated, structured and shaped in order to be understood by market forces (p. 930).

The epistemic community might have a significant role in another aspect. It might help in educating faculty members to become heutagogy-oriented teachers. In Chap. 14 we find that "For us, the most salient findings had been that heutagogy is student self-determined but teacher dependent. It presupposes a flexible teacher who is ready and able to trust the students, to maintain with them a genuine dialogue concerning their wandering." Since this change is basically a change of beliefs and attitudes, it depends on the teachers' willingness to change. This can be cultivated by the teacher participation in an epistemic community.

## Summary

The change of the paradigm has to be a bottom-up process, but it can't be a one-man project. To initiate it within an academic institution it is not enough to create a community of learning and practice devoted to heutagogy. It is advisable to form an epistemic community which will be devoted to promoting the four points defined by Hass (1992). However, it is not necessary that there be a culture of self-determined learning within the institution before heutagogy can be successfully realized, since such a culture can be initiated by the epistemic community itself.

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# Chapter 16
# Heutagogy Versus Other Experience of Self-determined Learning




**Abstract** Following the previous chapters of the book, this chapter is devoted to refining our insights on heutagogy in higher education by comparing our experience to that of Matusov and Marjanovic-Shane (2017) [M-MS]. As lecturers, they also experienced self-determined learning which they called "open syllabus". Following this experience, they changed their way of teaching from "open syllabus" to "opening syllabus". The opening syllabus is a hybrid way of learning that synthesizes between the closed syllabus (the traditional way of learning in higher education) and open syllabus.

Matusov and Marjanovic-Shane (2017) suggest an alternative to the heutagogy view of self-determined learning. They start from the same understanding regarding the current educational problems, but they proceed in a different direction. Placing the notion of democracy at the core of their approach, they propose the idea that the class as a unit should decide what and how to learn. This strategy raises the question of the individual versus the collective (i.e., who is the "self" of the self-determined learning), and the issue of the role of the teacher in such a learning.

## Matusov and Marjanovic-Shane Experience in Self-determined Learning

### *Background*

Matusov and Marjanovic-Shane (2017) indicate that education's biggest problem is the authoritarian pedagogical regime. They believe that "self-determination is a universal human right" (p. E2), and argue that "paradoxically, a democratic society suspends democratic practices… Ironically, it is true not only for children but also for adults in conventional institutionalized education" (p. E2). They define genuine education as "students' active leisurely pursuit of critical examination of the self, life, society and the world" (ibid, abstract). The primary condition for such education is

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"the students' freedom to participate in making decisions about their education" (ibid, abstract).

M-MS raise the need to advance the democratization of higher education in order to deepen democracy and education and promote the learners' ownership of their own life. To this end, they developed and experienced the "open syllabus" courses.

## *The Open Syllabus*

In an open syllabus the teacher provides his/her students "possible curricular topics with brief descriptions-provocations of their attractions and possible significance for the students so they can find their own places of their interests" (p. E4). The possible topics for learning are presented by the teacher, although the students are invited to add new relevant topics for learning. Each student who suggests a topic also tries to convince his/her classmates to accept his/her suggestion.

Following this stage, the students conduct a voting to choose the topic. When there are no winners, the students together with the teacher suggest and choose how to make the decisions. Sometime they suggest to flip a coin, to study different topics in individual or in small groups in parallel, to ask the teacher to decide, or to schedule "the competing topics for the same class meeting to be studied by the whole class" (p. E5).

The main way of learning is the critical dialogue between the teacher and the students in the plenary, although the students may choose not to take an active part in a particular discussion. There are also individual tasks the students are instructed to do (e.g., main learning project). In addition, the students as a group have the freedom to decide that the assessment of their learning will be either "based on their individual 'participation' and 'quality' of their work (usually papers) graded by the instructor …" or "all together by giving themselves an 'unconditional A' for the class from the beginning" (p. E9).

After some years of experiencing the open syllabus regime, Matusov and Marjanovic-Shane (2017) encountered two main difficulties: first, the traditional pedagogical culture of many students blocked them from experiencing a new culture. And second, some students felt the sense of self-failure to cope with the challenge.

Regarding the difficulty of the students in the open syllabus regime, Matusov and Marjanovic-Shane (2017) reflected that "some of the students reported that they felt we, their professors, were 'lazy' because it was not their job to design the class but their professors" (p. E9). In addition, they noticed that "many novice students became anxious about trusting themselves" (p. E9).

These barriers illustrate a problematic circle in which "conventional school disables the students' academic authorial agency, which makes the students unprepared for academic freedom that promotes the students' academic authorial agency" (p. E11).

M-MS distinguish between "'a good learner', who tries to pursue his/her own, self-defined, inquiries and studies, and 'a good student', who tries to please the authorities to get good grades" (p. E7).

Referring to the sense of self-failure, many of the open syllabus students "prioritize other, more demanding, aspects of their life that are guided by necessity and treated our Open Syllabus class as auxiliary, putting it on a backburner" (p. E11).

These issues motivated Matusov and Marjanovic-Shane (2017) to develop a new type of course, the opening syllabus.

## *The Opening Syllabus*

In the opening syllabus pedagogical regime, "students are able to choose topics they are interested in studying" (Matusov and Marjanovic-Shane, 2017, p. E14), and all the other elements like attendance, assignments, and assessment are decided by the teacher. Gradually, the teacher invites the students to discuss and decide on some elements of the learning organization.

For example, the students were required to prepare a weekly mini project. Following a critical dialogue with the students, M-MS decided to consider the students' personal time, and "creates opportunities for the students' self-initiated education" (p. E17). They decided to enable them whether to do the assignments in class or at home. The students also changed the title "mini project" to "self-studies".

Still, in the opening syllabus regime, the teacher assesses the students according to his/her requirements, such as the students' attendance, the number of their posts in the class online forum, the quality of the students' self-study task, and their main learning project.

## *Insights from the Opening Syllabus Regime Experience*

Matusov and Marjanovic-Shane (2017) present evidence which was gathered from students' reflections and posts which indicate a great satisfaction of the students from the opening syllabus regime. At the beginning it was difficult for them to get used to the new way of learning, but gradually it became the most enjoyable and meaningful class for many students.

Over time, when the students were invited to decide about the type of regime they wish to learn with, half of the class changed their learning to open syllabus regime, and the others stay with the opening syllabus regime while nobody asked a closed/conventional syllabus regime. Students reported on their developed sense of freedom, especially because of the weekly self-study task, the relevance to their professional life growth, their appreciation of the feedback they got from their peers, the feelings of meaningful and deep learning. Nevertheless, some of them were disappointed that they did not cover all the topics.

## Comparison

The comparison between heutagogy and the open and opening syllabus regimes raised points of agreements and controversies which shall be addressed through two main questions: "why self-determined learning?" and "how to do it"?

### *Points of Agreement*

**The Inevitability of Self-determined Learning**
We agree with Matusov and Marjanovic-Shane (2017) on three of the answers to the "why" question. First, we agree on the necessity of self-determined learning as non-instrumental learning which suits the smart robot era, when there is no need for people to act as "smart machines" as Matusov and Marjanovic-Shane (2017). Second, we agree with them that learning should be done for its own sake (as a leisure). Third, we also agree that it is necessary to develop the students' capabilities to contribute for a lasting democratic society, and to foster its stability.

In addition to these reasons we can add the suitability of self-determined learning to the nature of creating knowledge through wandering (see Chap. 6) and to the essential psychological requirements to supply the students their basic emotional needs in order to enable involved and intrinsic motivated learning (see Chap. 4).

**The Content**
Concerning the "How to do it" second question, we agree that the course content is not a barrier for self-determined learning.

M-MS describe, for example, Matusov's math teacher who "introduced new big units through many math problems that we had to solve on our own (individually or in groups). Guidance was provided on-demand when some or all of us got stuck"(p. E5).

### *The Disagreements*

The disagreements between the open and opening syllabus regimes of Matusov and Marjanovic-Shane (2017) and heutagogy are visible in our different approaches on the learning aims (the why question), and the learners' and teacher's status and role. The first disagreement refers to the issue of self-wandering in heutagogy versus the class critical dialogue in open and opening syllabus regimes.

**The Self and the Class**
We emphasize the aim of promoting learning as individual wandering. Relatively to heutagogy, the open and opening syllabus emphasize the class critical dialogue with

the teacher as the main way of learning. It is true that the "self-study" and the "main learning project" assignments of the opening syllabus regime invite each student to find what to learn, but yet most of the learning activities emerge in the class through the dialogue.

M-MS argue that the development of critical dialogue's skill is a basic condition for meaningful participating in democracy. Hence, it should get a higher priority than the development of autonomy in learning through wandering.

In open and opening syllabus regimes, the class is a unit which simulates and exercises decisions-making processes, as it should be done in a democratic society. The minority should accept the majority's decision although the minority opinion should be heard and respected. The main problem of the open syllabus regime could be the collective decision-making which limits the sense of self-autonomy as the individual should learn what the majority decided.

Matusov and Marjanovic-Shane (2017) found that "merely engaging students in decision making about their own education does not work for many students" (E2). Students felt they "did not follow their own freely chosen educational commitment" (E2). In contrast, in heutagogy the students are not just engaged in making decision, they decide as individual or small group about their learning. We are not sure that this is the reason of why many of the open syllabus students were disappointed, although it can be just one alternative explanation which worth more studies.

Heutagogy emphasizes the individual: the fulfillment of the student's need for self-autonomy and self-capability emotional senses (see Chap. 4). The students learn to discover and develop their self-identity and interests, and to express their unique voice as necessary virtues that enable them to create and defend their and others' self-determination. Following Rogers (see Chap. 2), such abilities may contribute to create and maintain democracy.

This difference presents two different ways to understand democratic education. M-MS take it that building a formal structure in which democratic principles (such as dialogical relations, voting, and respecting minority rights) are exercised is a necessary condition to develop a democratic citizen. We believe that fostering individual capabilities of critical thinking, responsibility, and self-agency are preconditions to prepare active and deliberative participants in the political arena. This issue, however, merits a more thoughtful discussion which will be continued elsewhere.

In open and opening syllabus regimes, the teacher leads the class' critical dialogues sometimes by provocative ideas, and he/she manage them as an advisor, or as a "tourist guide" (Matusov and Marjanovic-Shane, 2017) These teacher's roles demonstrate a teacher-centered learning and the process is more pedagogy and/or andragogy than heutagogy (see Chap. 5). The open syllabus is a kind of compromise between the teacher who "often has epistemological authority by having experiences, familiarity, and interest in the field", and the students' "constant and changing consideration of what they want to study" (p. E4). "To reconcile these two important concerns—the teacher's epistemological authority and students' learning activism—we developed a tourist guide metaphor for a role of the teacher" (p. E4).

The open syllabus regime and especially the opening syllabus regime limit the students' self-autonomy and thus express the teacher's limited trust in his/her students' capability to learn by themselves.

Matusov and Marjanovic-Shane (2017) argue that the teacher should create mutual trust with his/her students gradually and in according with the students' level of preparation for the self-determined learning. This is probably why they emphasize the importance of the identification of the students' motivational types.

Matusov and Marjanovic-Shane (2017) identified some different characteristics of students which represent different kinds of motivation to learn in open syllabus regime. They emphasize the readiness of the students for open syllabus regime as the key for successful experience. In heutagogy the teacher unconditionally trusts his/her students' learning capabilities as a necessary condition for self-determined learning.

## The Coercion Dilemma

Matusov and Marjanovic-Shane (2017) believe that the students' choices for their learning should be considered. Their experience with open syllabus regime indicates that many students are not prepared for self-determined learning or are not interested in such experience. Consequently, they concluded that they shouldn't dictate it on the students in the opening syllabus regime.

What does it mean to consider the students' voice? Teachers may consider their students' choice for dictated learning, but what about enhancing the goal of developing the students' capabilities to cope with self-determined learning?

We found that the obstacles, mentioned by Matusov and Marjanovic-Shane (2017), of the open syllabus regime, such as the difficulties of the students to change their conventional learning culture or to feel a "sense of personal failure to prioritize their commitment to freedom to study what they want" (p. E8), can be coped with.

Following our heutagogy experience we realized that most of the students cannot appreciate the benefit of the different learning culture, until they experience it as innovative, enabling, open journey.

## *The Conceptual Paradox*

The above discussion illuminates a conceptual paradox. There are students who do not want to be engaged in an unknown, vague, and frightening way of learning. While we, as teachers, want the students to exercise self-determined learning, it is we who determine that they will be engaged in self-determined learning. We want all the students to experience a variety of teaching–learning experiences. Ideally, we want them all to learn in a heutagogical manner. In a sense, we also "fall back" into the stance of the teachers who know what is good for their students. Although, regretfully,

we acknowledge the possibility that some students will refuse to be self-determined learners.

This stance entails a paradox. Can heutagogy be enforced upon all the students? Is it possible to enforce freedom?

This paradox is elusive. It rests upon a narrow meaning of the notion of freedom. Berlin (1969) suggested that there are two notions of liberty or freedom, negative and positive. For Berlin, negative liberty means that the agent is free to act as he wishes, without any constraints, as far as he does not do harm to somebody else.

The "positive" sense of the word "liberty" derives from the wish of the individual agent to be a subject, not an object; to be moved by reasons, by conscious purposes, which are his own, not by causes which affect him, as it were, from outside. He wishes to be self-directed (Berlin, 1969).

Though Berlin's "two concepts of liberty are not immune to criticism, and it seems that they are not mutually exclusive, they do convey an important insight about the notions of freedom. As expressed by Carter (2019), the most important aspect of the demarcation is the theorist's degree of concern with the notion of the self:

> Those on the 'positive' side see questions about the nature and sources of a person's beliefs, desires and values as relevant in determining that person's freedom, whereas those on the 'negative' side, … tend to consider the raising of such questions as in some way indicating a propensity to violate the agent's dignity or integrity" (Carter, 2019).

Hence, Carter suggests that one side focuses on a positive interest in the agent's beliefs, desires, and values, while the other recommends that we avoid doing so. While M-MS join the second option, we choose the first.

Our idea is to invite the students to self-determined learning. We invite them to participate in a dialogue concerning their aims, desires, and beliefs. In an Aristotelian manner, we encourage them to deliberate about their decision and whether they can really justify them. We want them to unpack their indebted personality (see Chap. 1) and approach their authentic selves.[1] We believe that such a reflection will strengthen their degree of freedom.

## Degrees of Self-determined Learning

M-MS suggest that self-determined learning can be gradually accomplished according to the students' readiness. Thus, they propose a transition from the close syllabus regime to the opening syllabus regime and then to open syllabus regime.

For us this view is mistaken, and the only reason for having degrees of self-determined learning is the teacher readiness to let the students learn.

In general, the learning process refers to four main elements: its aims, content, method, and evaluation. In fully self-determined learning, each student determines how he/she will cope with each of them.

[1] The notion of authentic self is quite problematic. See Back (2012) (Chap. 7) for a detailed discussion of this notion.

Depending on the teacher readiness to let the students learn, he/she can gradually use only some elements as self-determined learning and to define the extent to which he/she enables the students to decide on them. Note that in the above sentence the readiness is that of the teacher, not the student. For example, he may determine the aims and the evaluation methods of the course and let each student decide its content and the way of learning. Or, she may decide to determine the way of learning and the evaluation method together with the student. Another possibility is that the teacher will determine some components of the elements and let the students determine the rest. For example, he may decide that some topics of the content are obligatory, or that as part of the evaluation the students should submit a paper.

For each of the above elements the teacher and/or the students may determine that their decisions are made at the beginning of the course, or they may decide that these decisions are flexible and can be changed during the course.

Thus, heutagogy is a stance and not a strategy. It is not an all or nothing (take it or leave it) approach. It represents an extreme pole in the optional teaching and learning strategies. As we have seen, it is possible, for various reasons, to adopt only some of its principles.

## Summary

In this chapter we show that self-determined learning has more than one possible interpretation. The comparison with M-MS syllabus regimes highlights the differences between our approach and their approach concerning the teacher's role and the class role in determining the learning process. While M-MS emphasize the important place of the procedure of making decisions in a collective, we emphasize the individual's autonomy as a crucial condition for enhancing a democratic citizen.

The chapter also dealt with the issue of enforced freedom and showed that it is a misconception to see the issue as an inner contradiction. The chapter ends with a consideration of the various degrees of heutagogy as self-determined learning.

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# Chapter 17
# What's Next?




**Abstract** In this chapter we present a few reflections about heutagogy practice and study. Some of our conclusions are already being implemented while others are planned for the future.

Heutagogy means a change in the teaching–learning paradigm in higher education. This change can be revolutionary. However, it can also be implemented gradually, as a step-by-step progression in which various elements of heutagogy can be realized in a given course in different settings.

As we defined in the introduction (Chap. 1), heutagogy is a teaching–learning approach in which the learners, facilitated by a mentor/teacher, determine their own learning. They decide what, how, with whom, when, and in which environment to learn. They also choose how to evaluate their learning and how to present the knowledge they had learnt about the subject-matter and about themselves as learners. Thus, the lecturers can decide "how much" of the heutagogy elements they want to include in their course.

In this book we justify heutagogy's general outlook and present how it can be exercised in different designs for different academic settings, aims, contents, and students. The unique and innovative approach of our concept of heutagogy is its wandering aspect. Following Serres (see Chap. 6), we also believe that learning is a mesh-based nomadic process.

## Possible Perspectives of Heutagogy

Following our general perspective on teaching (Chap. 2):

1. Heutagogy can be regarded as a method of teaching and learning so that the teacher is an enlightenment individual whose main aim is that the students will become knowledgeable. Hence, for him/her the content learned is the focus of the student's activity.
2. Heutagogy can be regarded as an art, and the teacher, being a romantic individual, is an authentic creator who loves his students and enhances their capability to

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A. Glassner and S. Back, *Exploring Heutagogy in Higher Education*,
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self-fulfill themselves. Hence, for him/her the student's self-determined process is the focus of the teachers' activity.

Hence, heutagogy can be viewed either as a viable and effective teaching method in which to deliver some definite content, or as a holistic pedagogical approach in which the process of *Bildung* stands at the core of the educational enterprise. We prefer to see heutagogy as a learner-centered approach.

As we stated in Chap. 1 and demonstrated throughout the book, heutagogy is called for if one wants:

- To empower the learner as a human being and enable him to be an autonomous agent;
- To educate a citizen who knows what democracy is and feels a moral responsibility to struggle for a better world;
- To motivate the students' learning process and make it meaningful for them.

However, heutagogy cannot be a dogmatic paradigm that the teacher has to blindly follow. This is a very easy trap to fall into, but it might prevent wandering, critical thinking, open mindedness, and deter genuine dialogue with students and colleagues. Even for the teacher "whose obligation is to ascertain that the new generation will share his faith" (Back, 2012, p. 20) it is possible to practice some of heutagogy's ingredients as we saw in the first example of Chap. 7 (The *Talmud* and the *Havruta*).

This book calls for a revolution in the teaching–learning paradigm in higher education, as we mentioned in the preface. However, we did not investigate the issue of ICT in the teaching–learning processes beyond mentioning the students' use of the internet and the power-point application for wandering and presenting of knowledge. The reason is that we do not propose a technologically oriented modification of the academic tradition. Yet, heutagogy can contribute to long distance learning (e-heutagogy) as can be exemplified by the works of Blaschke (2013), Kerry (2013), Gerstein (2014), and Belt (2014). As noted in the book's Preface, e-heutagogy is a feasible way to deal with worldwide crises like the Coronavirus disease 2019 (COVID-19). It enables the students to continue to learn in a way that promote their self-determined learning.

## Heutagogy's Future: Opportunities and Challenges

Along with our experience in higher education courses, we would like to examine the long-term effects of experiencing heutagogy, especially its impact on the students' senses of agency, competence and autonomy. One of the major challenges we face is whether and how to use heutagogy to promote democratic, liberal, and humanistic approaches.

The possibility to develop an entire program in which all the courses are heutagogic ones present another challenge that can be exercised and explored. Such a

possibility to create a holistic learning environment might have a great impact on the students' way of life.

In addition, we began to advance heutagogy in K-12 school systems. For example, in one elementary school, some subjects are taught according to students' decisions of what to learn, how to learn, and how to conduct self-evaluation. Both the teachers and the students' express enthusiasm about this experience. Teachers report the students' joy of learning, and the students report developing interest and curiosity and feeling of autonomy. We intend to expand the circle of heutagogy learning to middle and high school systems.

## Epilogue

Heutagogy goes against the current. It challenges the common wisdom of what it means to be a lecturer/student in the academia. Does it have a chance to be more than an isolated and peripheral phenomenon in higher education?

Shklovsky (1917) claims that the role of art is to restore the sensation of life, which mean to refresh, create, and expand the meaning of the familiar reality. People become less aware to their reality, an idea illustrated by Shklovsky who described a group of people living by the sea who turned to be deaf to the sound of the waves. He suggests calling the role of the art defamiliarization and offers the metaphor of "to make a stone stony", which means to realize the essence of things. Defamiliarization encourages people to create an open and ongoing dialogue with what they are already familiar with, such as nature, people, texts, phenomena, and theories, in order to expand their meaning.

One of our students wrote in her reflection that for her, the heutagogy course was a kind of defamiliarization of her concept of learning. It is possible that heutagogy learning may adopt the idea of defamiliarization by encouraging students to create open and ongoing dialogues with their studied subjects, noticing their different perspectives. Defamiliarization invites learning through a journey, which also demonstrates the ideas of learning by wandering and learning for its own sake.

Such a journey presupposes the ideal of trust. O'Neil distinguishes between two institutional cultures: One is based on suspicion, the other on trust. Our postmodern culture suffers from a "crisis of trust". The price is high for it leads to tough regulation policies. To ensure that students will learn, we impose more requirements and quality assurance procedures. We forget that "trust breeds trust" (2002). Heutagogy advances the idea that we trust the students and their desire to learn. We trust that they know what they want, and that they want to improve the quality of their life. Some of them need to learn how to do it. And we believe that to this end, heutagogy might be a promising starting point.

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