

Teaching thinking

An ideological perspective

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Education suffers from a logical, not only an empirical, crisis resulting from the fact that society vests education with an ideal image of itself, and expects it to actualize that image – to “produce” graduates that will make society just and happy. Since this expectation cannot ever be fully realized, education is in a crisis “by definition.” This inevitable and unrecognized crisis makes education vulnerable to the “savior syndrome” (Perkins, 1992): Education awaits some “transcendental” intervention – a new educational aim, a new teaching methodology, a new curriculum structure, a new technology, a new policy, a new education czar – that will save it and enable it to actualize its destiny.

Teaching thinking was the “savior” that emerged in the 1980s and 90s, mainly in U.S. It offered education a new aim (with ancient roots) that corresponded to the spirit of the age: Come, let’s educate our youth to think well – effectively, critically, and creatively; instead of teaching them knowledge directly, let’s teach them to identify, utilize, process, critique, and generate knowledge – in a word, to think.¹ This new concept was eagerly embraced and spread quickly – especially in the educational literature: “It would be difficult to read anything at all in the contemporary literature of education without becoming aware of this new interest in teaching thinking” (Sternberg & Spear-Swerling, 1966, p. 102).

The literature of teaching thinking responded enthusiastically to the “new interest” and gave rise to a host – indeed, a surfeit – of theories and programs. A teacher wanting to teach thinking was confronted with a great number of inconsistent theories. Afflicted by theory inflation and cacophony, teaching thinking almost collapsed under its own creativity (Harpaz, 2005a, 2007) or, as Perkins puts it, fell victim to the very problem it sought to solve: “In an age when there are too many things to know, it almost seems that there are too many ways to think as well. Those concerned with improving students’ thinking face a razzle-dazzle of very different advice from different quarters” (1986, p. 4).

Arthur Costa, noting this trend among proponents of teaching thinking to generate a multiplicity of theories and programs, and fearing the united front would be dismantled, exhorted: “Workers of the Mind – Unite!” (1991, p.163).

Today, a generation after the peak of teaching thinking in U.S. (the peak of interest and the peak of creativity), but at a time when the subject is meeting with renewed interest in other educational communities, it is possible to consider the matter anew and apply certain qualities of thinking that the movement sought to promote – critical thinking in particular.

Ideology

Educational aims are often presented in a way that conceals their perspectivism – that they are a product of “human, all too human” points of view – through a process of *naturalization*, in which they anchor themselves in “the natural situation” or “the nature of the situation.” Once seemingly anchored in objective circumstances, educational aims are perceived as essential, and not as a product of subjective choices.

So too with teaching thinking: Teaching thinking isn’t simply the choice of educators enamored of thinking; teaching thinking is compelled by the economic, social, and cultural conditions of our times (the way gender, for example, is seemingly compelled by one’s sex). From the naturalistic perspective (that falls prey to the old naturalistic fallacy by which the “ought” stems from the “is”), the need to develop a child’s ability to think effectively, critically, and creatively is derived from the objective situation. It is said that in the era of civil society and democratic government; the knowledge economy characterized by rapid growth, accessibility, and obsolescence of knowledge; fast changes in all aspects of life; and unprecedented local and global challenges, teaching thinking is an educational imperative (cf. Barnes, 1992).

This chapter de-naturalizes teaching thinking through the concept of ideology as described and analyzed by Zvi Lamm (www.zvilamm-archive.org). Applying this concept to teaching thinking reveals new aspects of it and enables educators to understand and implement it more intelligently. And since “ideology” has a bad reputation in our times, it is important to emphasize that reducing educational “theories” – teaching thinking among them – to ideology does not reduce their value. On the contrary, it returns to them their human and moral essence.

From the time that Destutt de Tracy coined the term “ideology” in 1796 (referring to the “the science of ideas” that permeated the philosophical air of the French Revolution), it has gained countless interpretations (cf. Eagleton, 1991). Lamm discussed the concept of ideology in the educational context.² He sought to reveal the ideological essence of education. What is commonly referred to as educational “theory,” in his view, is an ideology with pedagogic content.

According to Lamm, ideology is a unique “epistemic system” that enables man to transform chaos into cosmos and to guide his thoughts and actions. (There are other epistemic systems, e.g., religion, science, the arts, philosophy, mysticism.) The ideological epistemic system has four components: (1) *Utopia*³ – the image of the ideal world (of the world as it should be); (2) *Diagnosis* – the description of the real world (of the world as it is); (3) *Strategy* – the means of transforming the real world into the ideal world; and (4) *Collective* – the societal group that will implement the ideology or those who will benefit from its implementation.

In every ideological text – Thomas Paine’s *Common Sense*, Marx and Engel’s *Communist Manifesto*, Herzl’s *Judenstaat*, Hitler’s *Mein Kampf*, Mao’s *Little Red Book*, to name just a few of the ideological texts that changed the course of history, and all liberal, fascist, communist, feminist, environmentalist texts, and so on – one can identify these four components.

Yet, the existence of these four components does not exhaust the uniqueness of the ideological epistemology. What distinguishes it is the *infusion* of its four components – the melting by which they lose their original context and become distorted. So, for example, in the ideological context, the diagnosis – whose original context is science – is no longer an objective diagnosis conducted according scientific method but, rather, a biased one – a diagnosis intended to justify and strengthen the utopia.

Ideology is a “false consciousness” (to adopt Marx’s concept in a different context) in other respects as well. For example, utopia – the image of the desired world, a world devoid of distress and injustice, an image whose fundamental context is a religious eschatology – has no empirical basis; its origins are moral inclinations that lack objective grounds.

And similarly, strategy, whose essence is rational thinking – matching means to ends – tends to become a dogma or a doctrine in the ideological context. People who disagree with it (for

instance, a communist who questions the need of proletarian revolution) remove themselves from the ideological community of the “true believers.”

Mankind, therefore, is faced with an ideological trap: it cannot function without ideologies – general ideologies (all sorts of “isms”) or personal ideologies (idiosyncratic variations of universal ideologies). To paraphrase Kant, men can’t stop breathing ideology even when the air is polluted, because ideology places them in space and time and moderates their thoughts and actions. Ideologies are in a way deceptive because they analyze the situation in a biased way, disrupt rational thinking, and equip people with arbitrary beliefs that pretend to be “the mirror of nature.” How do we extricate ourselves from this ideological trap? We can do so only partially by being conscious of them: critical people (critical in the Kantian spirit whereby human reason becomes aware of its intrinsic limitations) know that they cannot function without ideology but, also, that ideology is misleading. Therefore, they maintain a safe distance from their ideologies and hold them hesitantly; they are skeptical believers who don’t believe what they believe; they are alienated from their most cherished beliefs and cast doubt on any belief – except the harmless belief that all beliefs are doubtful.⁴

Education as ideology

What is the relation of ideology to education? Pedagogical “theories” have the epistemic structure of ideologies. Pedagogical “theories” are, in effect, pedagogical ideologies masquerading as theories.

One can make the comparison between social ideology and pedagogical ideology as set forth in Table 3.1. (In anticipation of the discussion that follows, the table includes the ideology of teaching thinking.)

As indicated, in social ideology the *utopia* represents the ideal image of the desired society; in pedagogical ideology it is the desired graduate or the educated person. One might characterize

Table 3.1

<i>Ideologies</i> → <i>Components</i> ↓	<i>Social Ideology</i>	<i>Pedagogical Ideology</i>	<i>The Ideology of Teaching Thinking</i>
Utopia	An ideal image of a desired society; a society free of distress and injustice	An ideal image of the desired graduate; a person who exemplifies the educational goals in his/her character and behavior	The desired graduate as good thinker; a person who thinks effectively, critically, and creatively
Diagnosis	Description and analysis of the deficiencies of the actual society (in light of the ideal one)	Description and analysis of the deficiencies of actual students (in light of the ideal graduate)	Description and analysis of the deficient thinking of actual students (in light of the ideal good thinker)
Strategy	Means to turn the actual society into the ideal one	Means to turn the actual students into ideal ones – curriculum, teaching, assessment, organization, etc.	Means to turn the actual students into “good thinkers” – the various methods developed for teaching thinking
Collective	The underprivileged group or the group able to make the change	Policymakers, principals, teachers, parents	Policymakers, principals, teachers, parents

the desired graduate as the “product” of a successful educational process, typically characterized by the specific knowledge, skills, attributes, and attitudes that he or she has acquired.

Understandably, there is a relation between the ideal society and the ideal graduate – the image of the ideal graduate derived from the image of ideal society and vice versa – but since education affects people directly rather than society and its institutions, it requires a utopian image of the desired graduate to function, that is, to educate.

Educators who see well have double vision – they hold two visions simultaneously: they see the concrete, actual student and the ideal student or ideal graduate. In their educational work they seek to bridge the gap between the actual student and the ideal student. Education is possible because of this gap between the two kinds of students and the pedagogical passion to close the gap between them. (According to Plato’s *Symposium* the pedagogic passion is the most refined sublimation of the erotic impulse.)

The image of the ideal graduate is not constructed based upon the shortcomings of the actual student. For example, educators don’t contend that because the actual student is, let’s say, ignorant, lazy, and selfish, we have to educate him or her into someone intelligent, diligent, and considerate. The situation (to a large extent, but not entirely) is to the contrary: the actual student is constructed based on the image of the ideal graduate. If, for example, the educator has in mind an image of an educated person who is intelligent, diligent, and considerate, she or he conceives of the actual student in light of this image – as someone at a particular level of ignorance, laziness, and selfishness. Education, therefore, is a work of the imagination that transcends reality and goes back to build it. (The transcendence is constrained by the reality, so the relationships between the actual and the imagined, between “is” and “ought,” are dialectic.) In the social ideology, *diagnosis* deals with society; in the pedagogical ideology diagnosis deals with the student – with his or her abilities, tendencies, habits, family circumstances, social status, and so on. As previously observed, the ideological diagnosis doesn’t seek as precise as possible a description of reality but, rather, to satisfy the utopia – to naturalize it, to back it up with factual data. The real student is measured against the utopian picture of the ideal graduate and is conceived as its inverse.

In the social ideology, *strategy* comprehends the means to effect societal change; in pedagogical ideology, strategy refers to the means of altering the student – the structure of curriculum, the patterns of teaching, the method of assessment, the culture of school, the physical facilities, and so on.

In the social ideology, the *collective* refers to the human group whose circumstances must be improved and/or the human group that will implement the improvements; in the pedagogical ideology the collective refers to the human group that is able to educate the students – teachers, principals, community leaders, and so on, and the students themselves.

As mentioned, ideology is misleading consciousness, an epistemic system whose parts – utopia, diagnosis, strategy, and collective – are infused and hence distorted. Similarly in the pedagogical ideology. The diagnosis, as we have already shown, is infused with the utopia – the students are read and deciphered in light of the pedagogical utopian graduate and not based upon a disciplined scientific method.

As a general matter, conservative approaches in education that are guided by an image of the educated person as a socialized or acculturated person (Lamm, 1976; Harpaz, 2010) analyze the child as unsocialized or unacculturated. Their point of departure is that the child is evil ab initio and, therefore, must be socialized or acculturated. By contrast, progressive approaches in education that are guided by the image of an educated person as an autonomous and authentic person, analyze the child as good ab initio; if the child is allowed freedom from the societal and cultural processes that education imposes, all his or her good qualities will be revealed and actualized.

Every educational ideology inclines to analyze the child in concert with its own educational vision. Children have different, at times even contradictory, natures, depending on the different pedagogical ideologies.

In the pedagogical ideology, the didactic strategies likewise tend to become enshrined and transformed into dogma. Adherents of pedagogical ideologies aren't easily inclined to empirically investigate their methods; their methods are transformed into a hallmark of their ideology, and one may not diverge from them.⁵

How do we extricate ourselves from the trap of the pedagogical ideology? To do so, we must reveal the ideological nature of education. A critical educator acknowledges that her or his perspective of the educational world – be it conservative, curriculum-centered education; progressive, child-centered education; Waldorf education; Montessori education; Critical Pedagogy; or any other school (including teaching thinking) – is an ideology through and through, a “false pedagogical consciousness” that springs from moral convictions (that were themselves molded by education) and not from human nature, societal nature, or any other nature.

The ideologies of teaching thinking

Teaching thinking is a pedagogical ideology and, therefore, does not spring directly from the state of affairs in the world but, rather, from the moral inclinations of its proponents – from their “pedagogical sentiment” (see later). Our moral inclinations or pedagogical sentiment are themselves products of the education we have received. Since pedagogical “theories” are ideologies, people cleave to one of them on the basis of intellectual and emotional identification; a certain educational ideology resonates with their thoughts and feelings.

Teaching thinking corresponds generally to the state of affairs in the world – which explains its quick adoption – but isn't compelled by it. There are other pedagogical ideologies that “suit” the world and are willingly accepted by it.

Furthermore, teaching thinking doesn't spring from findings regarding defects and fallacies of thinking that were revealed suddenly and demanded an urgent cure by teaching thinking. A different culture's image of a “good thinker” gives rise to different defects and fallacies. In Western culture itself there are different images of a “good thinker” that are the result of different cultural currents. Actually, in the teaching thinking movement at least three images of a “good thinker” are implicit.

The teaching thinking movement is led by at least three utopian images of a “good thinker.” These three images give rise to three approaches to teaching thinking – *the skills approach*, *the dispositions approach*, and *the understanding approach* (Harpaz, 2007, 2011, 2014). It is appropriate and useful to think of these approaches as ideologies and, henceforth, we will refer to them as “the ideologies of teaching thinking.”

Review of the literature of teaching thinking reveals these three ideologies. In its own way, each of the ideologies responds to the *main question* – the question that the texts of teaching thinking address either explicitly or implicitly: What is the bedrock foundation of good thinking, and how does one teach it? The first half of the main question seeks the foundation – Perkins calls it the “mindware” (1995) – that promotes good thinking, the Archimedean point upon which we set the lever of teaching thinking. The second half of the main question seeks the best method for teaching that foundation (to paraphrase the famous Marxian thesis – the teaching thinking movement does not seek only to think about thinking, but also, and mainly, to change it).

In the literature of teaching thinking, we find three answers to the main question, which constitute the nuclei of the three ideologies of teaching thinking. The ideologies of teaching

thinking are ideal types, that is, conceptual frameworks that are not totally realized in the reality of teaching thinking in schools and elsewhere; they help us to understand reality and direct it.

The ideology of thinking skills

At the core of the *utopia* of the skills ideology is the image of the good thinker as a *skillful thinker*. The skillful thinker is one who applies his thinking nimbly and precisely. He accomplishes this with the help of specific *thinking tools* – disciplines, strategies, heuristics, arguments, thinking organizers, or any other “thinking frames” that facilitate thinking (Perkins, 1986).

The skillful thinker is an *efficient thinker* – a thinker who knows how to apply her thinking in a purposeful way to achieve her objective, whatever it may be. The value that guides the ideology of skillful thinking is efficiency.⁶

The metaphor that directs the skills ideology is the *toolbox* (Harpaz, 2007, 2014).⁷ The mind is conceived as a bundle of instruments adapted to the treatment of certain challenges – tools to solve problems, tools to take decisions, tools for reasoning, tools for creative thinking, and the like.

From the vantage point of the skills ideology, thinking itself is a tool – a mechanism liable to greater efficiency by means of other tools. The thinking mechanism performs various different functions – it sorts, classifies, compares, differentiates, generalizes, makes inferences, reaches conclusions, solves problems, and so on – naturally.⁸ Thinking tools serve to expedite natural thinking the way (real) tools expedite human actions.

The picture of a good thinker as a skillful, efficient thinker aided by thinking tools reproduces the world of human actions, which are aided, extended, and transformed by tools. Skillful thinking is the tool behind all tools, the tool that invents, improves, and maintains all the other tools.

As is the case with all our ideological preferences, there is no objective justification for giving priority to the utopian image of the good thinker as a skillful and efficient thinker. People prefer one or another of the pedagogical ideologies not based upon data, evidence, or convincing arguments but, rather, based upon their pedagogic sentiments: people of *practical pedagogical sentiment* generally prefer educational objectives that produce useful results. With regard to the ideology of teaching thinking, they will prefer the skills ideology with its image of a skillful and efficient thinker.

As is the case with ideologies, the *diagnosis* depends upon the *utopia* – the image of the desired student as a skillful and efficient thinker – and it diagnoses the actual student as one whose thinking lacks skill and efficiency, that is, one that is not properly equipped with thinking tools. According to the diagnosis of the skills ideology, natural thinking is intuitive and automatic, adequate in routine situations, while requiring tools in unusual (as well as in more common) situations.

The skills ideology generated a demand for thinking tools, and the “marketplace” of teaching thinking responded by creating an assortment of different thinking tools. Among the thinking tools that the skills ideology produced are *generic tools* – tools designed to streamline natural thinking operations such as sorting, comparing, inference, and so on; and a portion of these tools are *qualitative tools* – tools that serve to equip thinking with abilities that are not “natural” such as deep thinking, systematic thinking, creative thinking, and other thinking that opposes our “fast” thinking (Kahneman, 2011).⁹

The diagnosis related to the tools ideology is, therefore, of a mechanical nature; the natural thinking mechanism functions inefficiently – it performs sloppy comparisons, deduces invalid conclusions, arrives at erroneous decisions, and so on. To think more effectively and achieve

more productive results it must be equipped with suitable tools. Tools are what make the difference between bad and good thinking.

The didactic *strategy* of the skills ideology – we will refer to it as the *method of impartation* – is grounded in exemplifying and exercising. The teacher exemplifies (how to phrase a sentence, how to solve an equation, etc.) and the students imitate and assimilate through exercises. The exercise is intended to bring the students to automatic command of skillful thinking, command that doesn't require mental resources. The objective of imparting skillful thinking, therefore, is skillful thinking without thinking.

The *collective* or target audience of the skills ideology are students in school, who, as identified by the diagnosis, are in need of skillful thinking and the community of educators – theoreticians, administrators, principals, teachers – that are supposed to equip them with the desired tools. The collective of the skills ideology is shared among those that require educating – to have their thinking improved – and those that have the responsibility for doing so. (Since the basis of the collective is the same in all the ideologies, I will omit further reference to it in discussion of the other thinking ideologies.)

Among the many proponents of teaching thinking within the skills ideology are: De Bono and his CoRT program (1991, 1992a, 1992b); Beyer and his program, Direct Teaching (1987; 1988); Swartz and Parks and their Infusion program (1994); Sternberg and his program, Intelligence Applied (1986); Treffinger, Isaksen and Dorval, and their program, Creative Problem Solving (1994); Whimbey and Lochhead and their Methods for Problem Solving (1982); Feuerstein and colleagues and their program, Instrumental Enrichment (1980; 2004); Fisher and his Teaching Thinking program (1998, 1990); Adey and Shayer's Cognitive Acceleration (Adey, 1993; Shayer and Adey, 2002); Marzano and colleagues and their program, Dimension of Thinking (1988); and Halpern and her Critical Thinking theory and program (1996).

Programs in the school of informal logic belong to this ideology (cf. Ennis 1962, 1987; Scriven, 1976; Johnson & Blair, 2006; Govier, 1985; Fisher, 1988; Chaffee, 1991). Many "How to Do" books which help "to build your mental muscles" (Reid, 2002) also belong to this practical ideology.

The skills ideology is more prevalent than the other two ideologies of teaching thinking – the dispositions ideology and the understanding ideology – because: (1) its utopia is in concert with the utilitarian and instrumental spirit of our capitalistic times; (2) its strategy is straightforward and perceived as easy to implement; and (3) its utopia and strategy suit the ethos and practicalities of schools. School is basically a social institution intended to provide students with socialization tools – to succeed in their societal roles and professions. Thinking tools are conveyed by means of impartation and supporting scaffolds like incremental curriculum, summative assessment, authoritative school culture, and so on.

Adherents of the skills ideology might argue that presenting it as a mechanistic and instrumental ideology that serves the social order distorts its essence: Does skills impartation of critical thinking or creative thinking support the social order or actually critique it by offering alternatives?

Thinking skills – like all skills – can serve any purpose. Skillful and efficient thinking can support the social order or subvert it. In the context of the skills ideology, thinking serves the social order – helping people to integrate and succeed in the existing society. Critical thinking, in this regard, is reduced to a set of skills devoid of critical spirit – a spirit that tends to criticize beliefs "no longer themselves seen, but that through which everything else is seen" (Talaska, 1992, p. 251). Critical thinking, when understood strictly in terms of skills, does not criticize accepted beliefs and goals; rather, it criticizes the means employed to realize these beliefs and goals more efficiently; the beliefs and goals themselves remain beyond its compass.

Likewise, creative thinking in the context of the skills ideology is perceived as a set of skills whose purpose is to refine economic development. The capitalist social order is concerned with creative thinking so long as it advances it and maximizes profits, and not with creative thinking that seeks to undermine the system itself and offer alternatives (cf. Jameson, 1994).

In the context of the skills ideology, the reduction of critical thinking and creative thinking (there is, of course, a linkage between the two forms of thinking) into sets of skills harbors an additional danger: The strategy of imparting skills is based on exemplifying and exercising, which encourage imitative learning. That very teaching and learning suppresses the students' critical and creative thinking. In education (as in communication) "the medium is the message" (Postman & Weingartner, 1969, p. 16), and "the method of instruction is the content of instruction" (Lamm, 1969/2000, p. 32); therefore, the didactic strategy (the medium) of the skills ideology contradicts its overt message. A student who imitates skills exemplified by the teacher – including critical and creative thinking skills – learns through the covert message conveyed by the method of impartation to be obedient and dare not to think for him- or herself.

The ideology of thinking dispositions

The ideology of thinking dispositions came into being gradually. In the first phase, dispositions were conceived of as an auxiliary energy source for skills, that is, skills, like abilities, need some sort of motivation in order to actualize their potential existence, and this energy is supplied by dispositions.

As they captured increasing attention, thinking dispositions began to be conceived of as the central "unit of analysis for cognitive behavior" (Perkins, Jay, & Tishman, 1993, p. 3). Hence, the category of "thinking dispositions" was liberated from its dependence on the category of "thinking skills" and presented itself as an alternative: thinking dispositions, and not thinking skills, are the bedrock foundation of good (and bad) thinking.

It is possible to view this transition from the category of skills to the category of dispositions as a theoretical development in the domain of cognitive psychology, but this transition is not only psychological, but also ideological. Thinking dispositions aren't blind desires; they are desires to realize some image of a good thinker, a value-laden image maintained by a worldview, that is, an ideological image.

Whereas skills or thinking tools are located "outside" thinking, which makes use of them opportunistically or not at all, thinking dispositions are inseparable from thinking itself; they drive man's intellectual personality. Whoever is disposed to think one way or another is incapable of not thinking one way or another in certain circumstances; circumstances trigger her or his thinking dispositions.¹⁰

Thinking dispositions are motivated patterns of thinking. The motivation to think in a particular way – deeply or superficially, clearly or hazily, consistently or inconsistently, critically or dogmatically, creatively or conventionally – spring from conscious and unconscious sources. Teaching thinking is focused on the conscious sources of thinking dispositions and seeks to cultivate explicitly and systematically certain thinking dispositions that are generated by a cultural image of a good thinker.

From the perspective of the *utopia* of the thinking dispositions ideology, a good thinker is one motivated by good thinking dispositions. Thinking dispositions reflect a desired graduate different from the thinking skills ideology. Having emerged as an independent category that is distinct and no longer derivative of thinking skills, thinking dispositions are now derived from a cultural image of the good thinker who is a *wise thinker*.

The dispositions ideology restored to the discourse of teaching thinking the cultural image of the educated person – a person of worthy intellectual qualities and virtues. Dispositions *in*

the strong sense are personality traits and intellectual qualities that are anchored in a world view (see, for example, Richard Paul's "intellectual traits," 1992, pp. 151–155). Thinking dispositions in this sense correspond with a long educational tradition of character education, insofar as a person, from this perspective, thinks with his or her character, not just his or her intellect; the psychological and intellectual character shapes the quality of the thinking. Dispositions *in the weak sense* (see, for example, Costa & Kallick's "habits of mind," 2000) are dispositions that have a direct and focused influence on the forms of thinking and not on the entirety of the personality; and yet, they too are derived from a cultural image of a wise thinker.

Like all the utopian images that guide our lives, there is no ultimate justification for the utopian image of the wise thinker – a thinker characterized by specific thinking dispositions. The preference for the image of the wise thinker flows from an *intellectual and ethical pedagogical sentiment*. People with this sentiment are generally inclined towards education whose purpose is not a concern for human well-being (instrumental education, education that imparts skills) but, rather, for human goodness – even when it harms human well-being. Critical thinking, for example, is liable to harm a person's professional career, but adherents of critical thinking in the dispositional sense, do not shrink from such consequences since critical thinking, according to their perspective, is not a means to end but an end in itself.

According to the *diagnosis* of the dispositions ideology, people are motivated by negative thinking dispositions that are the opposite of positive dispositions, the dispositions we wish to cultivate. For example, Perkins and Swartz (1991) describe four negative thinking dispositions that should be neutralized by means of positive thinking dispositions: dispositions towards hasty, narrow, fuzzy, and sprawling thinking. Concealed in every list of thinking dispositions is a list of negative thinking dispositions to which the positive thinking dispositions serve as antidotes. The diagnosis of the dispositions ideology differs, therefore, from the skills ideology; from its perspective the weakness of thinking doesn't flow from the absence of thinking skills or tools but, rather, from the absence of good thinking dispositions or from the prevalence of negative thinking dispositions.

The dispositions diagnosis is more complicated than the skills diagnosis because the concept "thinking dispositions" is more ambiguous. Moreover, we do not characterize one's personality in terms of his or her skills ("He uses De Bono's PMI tool well"; "She masters Swartz's graphic organizers"), but we do characterize one's personality in terms his or her dispositions ("He is a deep thinker"; "She is an independent thinker"). From the perspective of the skills ideology, a person *does* the thinking; from the perspective of the dispositions ideology, a person *is* his or her thinking. Therefore, an attempt to diagnose and educate someone from this perspective is a more complicated affair.

The *strategy* of teaching dispositions – we'll call it *the cultivation method* – is based upon modeling and creating a culture that encourages identification and internalization. In order for a person to internalize character traits or thinking dispositions she or he must identify with a "significant other" who demonstrates these traits or dispositions. A teacher who aims to cultivate thinking dispositions has to model it, to walk the talk. A school that aims to cultivate thinking dispositions must maintain an organizational culture that manifests and supports the desired dispositions.

Thinking dispositions cannot be cultivated by direct teaching like thinking skills. Exemplifying thinking dispositions and exercising them will not cultivate them. Dispositions are cultivated by indirect teaching, whereby the teachers and the organizational culture demonstrate and support thinking dispositions. It is possible and desirable to speak about and discuss thinking dispositions and their various aspects directly, but the essence of the cultivation effort is indirect.

The ideology of thinking dispositions is represented by thinkers like Facione who wrote about "dispositions for critical thinking" (Facione et al., 1992); Paul who wrote about nine

“intellectual traits” and “passion” (1987, 1992); Siegel who wrote about “critical attitude” and “critical spirit” (1988); Costa and Kallick who wrote about sixteen “habits of mind” (2000); Marzano who wrote about good “habits of mind” (1992); Perkins et al. who wrote about seven “thinking dispositions” (1993); Ritchhart who wrote about “intellectual character” (2002); and Langer who wrote about “mindfulness” (1989).

One can speak of two types of dispositions – thinking disposition and *a disposition to think*. The disposition to think – to be engaged in thinking – is barely addressed in the literature of teaching thinking, and yet it is a threshold condition for the appearance of thinking dispositions. John Dewey defined good thinking as reflective thinking that is “the kind of thinking that consists in turning a subject over in the mind and giving it serious constructive consideration” (Dewey, 1933/1998, p. 3).¹¹

Schools don’t enable such engaged thinking; schools are based on detached thinking or “cold cognition” (Perkins, 1992). Engaged thinking or “warm cognition” – “turning a subject over in the mind and giving it serious constructive consideration” – isn’t possible in a school regime that is preoccupied with review of material in preparation for exams. In the absence of a disposition to think, thinking dispositions cannot come into being. A school that wants to cultivate the disposition to think and thinking dispositions must undergo a structural transformation. Traditional schools are hostile to the thinking dispositions ideology and don’t guarantee basic conditions to cultivate thinking dispositions.

The understanding ideology

The teaching thinking movement unfolded dialectically: traditional teaching of knowledge – thesis; teaching thinking – antithesis; teaching for understanding – synthesis.¹² Through teaching for understanding knowledge made a comeback to the teaching thinking discourse but in the form of understanding.¹³

In this respect, there is some irony in the path of teaching thinking (Harpaz, 2011). The fundamental claim of teaching thinking in the two preceding ideological versions is that knowledge is exploding, accessible, and becoming obsolete and, therefore, in place of teaching students knowledge we should teach them to deal with knowledge, that is, to think. But the understanding ideology maintains that there is an intimate connection between thinking and knowledge, and when knowledge is understood, thinking is conducted flexibly.¹⁴

Stated differently (and in the spirit of McPeck’s thesis), there is no such thing as general good thinking; there is only good thinking in a particular domain – a domain that the thinker understands (his or her cognitive comfort zone). Understanding is a necessary, almost sufficient, condition (which several skills and dispositions serve to benefit) for thinking in all its desired attributes – profound, consistent, critical, creative, and so on.

Focusing on the *utopia* of the understanding ideology, we find the image of a good thinker as a *scholarly thinker* or *learned thinker* – a thinker who is familiar with domains of knowledge or disciplines, a thinker, to use Gardner’s terminology, with a disciplined mind (Gardner, 1999). The thinking of a scholarly thinker is thinking that has the qualities of expert thinking; but while expert thinking is liable to relate to a narrow field of expertise (“knowing everything about nothing”), the thinking of the scholar is conducted across several disciplines and the relations among them.

The theoretical disciplines are the most productive frameworks of thinking – the most generative means to understand worldly phenomena. Thus, the ultimate goal of the understanding ideology is not the understanding of disciplines but, rather, understanding of the world – by means of the disciplines.

The understanding ideology digresses from the sphere of thinking about and with knowledge and is directed towards the world's phenomena. Skills and dispositions relate to thinking; understanding relates to knowledge that describes, explains, and even creates worldly phenomena through the disciplines (Goodman, 1978). The utopian image of the good, understanding, scholarly thinker comprehends more than good thinking; it also encompasses a relationship to the world. This relationship is two-fold: practical and existential. On a practical level, understanding enables us to operate more intelligently with regard to things that we understand; on an existential level, understanding enables us to introduce order to the world and imbue it with meaning. As a practical understanding, understanding is an instrument – to understand in order to function more effectively; as an existential understanding, understanding is a goal in itself – understanding for the sake of understanding.

The deficiencies of thinking that the *diagnosis* of the understanding ideology identifies are *misunderstandings* or *misconceptions*. In principle, a person can think well – “know his way around,” to use Perkins' metaphor for understanding – when he misunderstands; but by their nature misunderstandings confuse thinking with contradictions and incompatibility and impede its progress.

The *strategy* of teaching for understanding – we will refer to it as *the method of construction* – is based upon activating the student's consciousness to the cognitive activity of building knowledge, based on the constructivist assumption that understandings don't pass from one consciousness to another but, rather, are built or invented in the individual mind (Piaget: “to understand is to invent,” 1973). Activating students' consciousness is accomplished by various methods, for example, *undermining* – the undermined consciousness (according to Piaget) seeks to restore its “cognitive equilibrium” by means of constructing new understandings; or *resonating* – the taught content resonates with initial raw thoughts and questions that motivate the learner to deepen and refine his or her understandings. The teacher undermines, resonates, and performs several other maneuvers (cf. Willingham, 2009; Perkins, 2009; Harpaz, 2014), and the student is swept along in inquiring and engaged learning whereby she or he constructs understanding.

The teaching strategy of teaching for understanding depends in large measure on one's interpretation of the concept of understanding. (Gardner: “Understanding is a complex process that is itself not well understood,” 1991, p. 179.) In the literature of teaching thinking, understanding is interpreted in different ways, but two interpretations stand out – understanding as representation and understanding as performance (Perkins, 1998). As representation, understanding is conceived of as a net of coherent concepts that correspond to phenomena in the world; as performance, understanding is conceived of as the ability to execute processes – “understanding performances”¹⁵ – with what one knows. (Understanding performances aren't reflections of a latent understanding but, rather, build it.) The conception of understanding as performance has a didactic advantage. While the representations are concealed in the consciousness of others and are not accessible to the teacher and the class (since the consciousness of others is inaccessible to us; in fact, as Freud taught us, even our own consciousness is inaccessible to us), the understanding performances are public and, hence, lend themselves to elaboration and evaluation.

The ideology of understanding is represented by theorists such as: Perkins (1992, 1998), Gardner (1991, 1999), Wiggins and McTighe (1998, 2005), Lipman (1988, 1991), Newton (2000), Bereiter & Scardamalia, (1993), and Harpaz (2014).

Thinkers such as McPeck (1981), Siegel (1988), and Smith (1990) support this ideology for various reasons. And so, too, does the rich and diverse literature on constructivism. (Cf. Tobin, 1993; Brooks & Brooks, 1993; Steffe & Gale, 1995; Von Glasersfeld, 1995; Fosnot, 1996; Richardson, 1997; and Bereiter, 2002.)

At first glance, the ideologies of teaching thinking complement one another, and teaching thinking completely requires imparting thinking skills, cultivating thinking dispositions, and

constructing understanding. But on second look tensions are revealed – both ideological and practical. From the ideological standpoint, every ideology has its own, different utopian image of the good thinker. That image dictates a unique and different pedagogical ethos and teaching method. From the practical standpoint, teaching is effective when it adheres to a single teaching framework.

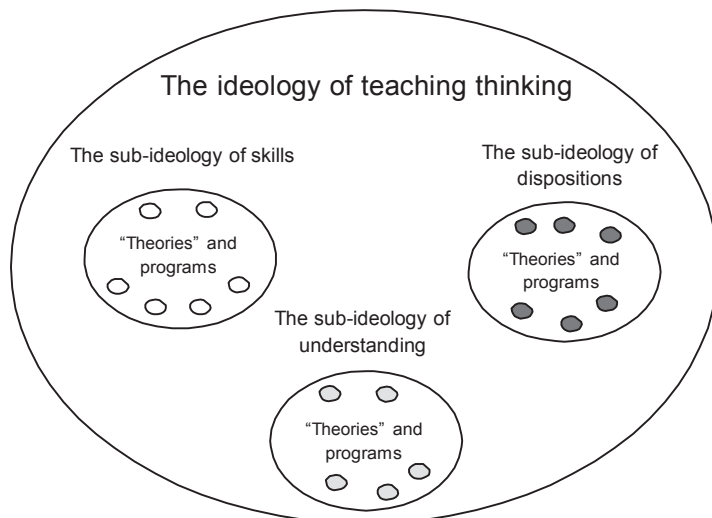
If, therefore, it is undesirable to merge the three teaching ideologies, which is the preferred ideology? Elsewhere (Harpaz, 2007) I have advanced four arguments – logical, theoretical, ideological, and pedagogical – in support of the ideology of understanding. It is sufficient here to note one argument – the logical – to give priority to the ideology of understanding. School’s fundamental task is to teach knowledge – teaching is education through knowledge; hence it must teach knowledge for the sake of understanding; when it teaches knowledge not for the sake of understanding but, rather, for example, for demonstration on an examination, it destroys thinking and the motivation to think. Understandably, it is possible and desirable to impart thinking skills and to cultivate thinking dispositions, but within the framework of teaching for understanding.

Conclusion

This is our theoretical (not ideological) diagnosis:

<i>Ideologies →</i>	<i>The Skills Ideology</i>	<i>The Dispositions Ideology</i>	<i>The Understanding Ideology</i>
<i>Components ↓</i>			
Utopia	Skillful, efficient thinker	Wise thinker	Scholarly thinker
Diagnosis	Lack of skills	Negative dispositions	Misunderstandings or misconceptions
Strategy	The impartation method	The cultivation method	The construction method
Collective	Thinking educators; students with defective thinking	Thinking educators; students with defective thinking	Thinking educators; students with defective thinking

Or:



Teaching thinking has the epistemic structure of an ideology – it is an ideology charged with pedagogic content and intentions. Yet, teaching thinking, like other educational “theories,” conceals its ideological nature by presenting itself as derived from the objective reality and not from the subjective priorities of its adherents.

Teaching thinking is not a homogeneous ideology; it has three ideological manifestations – sub-ideologies of teaching thinking. Each sub-ideology – skills, dispositions, and understanding – has individual variation, specific theory (namely ideology) and/or program. “Theories” and programs of teaching thinking vary from one another, but they share an ideological essence – or (for those who are troubled by the word essence) they bear family resemblance.

The thinkers of teaching thinking do not always drop like a billiard ball into one of the ideological pockets. Perkins, for instance, moved on from one ideology to another (Harpaz, 2000a, 2000b). Some thinkers merge two or three ideologies (for example, Lipman and Marzano merge all three; Ennis and Siegel merge two – skills and dispositions). Yet, it appears that each thinker is disposed by his or her pedagogical sentiment towards one of the ideologies that is more dominant in his or her thought.

Since cognition is unitary, the tripartite division – skills, dispositions, understanding – isn’t definitive: skills, dispositions, and understanding are bound up in one another in various respects. Nonetheless, dividing teaching thinking into three distinct ideologies has both theoretical and practical value.

Perceiving teaching thinking from the perspective of the concept of ideology doesn’t imply its refutation. Developing people’s ability and motivation to think well is an appropriate and timely idea; it suits the cultural currents, present-day socio-economic conditions, and our future challenges. The ideological perspective helps us understand the nature of teaching thinking, reflect on it and implement it more thoughtfully.

Notes

- 1 D.Willingham: “I define *thinking* as combining information in new ways” (2009, p. 28).
- 2 Lamm was not the only one to probe the connections between education and ideology. The Critical Pedagogy School did so systematically (cf. Apple et al., 2011). But Lamm did it differently: he exposed the ideological structure of educational “theories.”
- 3 I prefer this term to “eschatology” which Lamm uses. Eschatology is a religious term implying a passive expectation for a miracle, while utopia activates people to realize it.
- 4 Egan called this state of mind “ironical” (1997); Frankenstein called it “ambiguity” (1981).
- 5 Bereiter claims that teachers should choose instructional methods based on strategic, not ideological, reasons (2002, p. 271). According to our analysis strategy in education is ideological; in education there is no neutral strategy – a strategy that we choose just because it is most effective.
- 6 Efficiency is a dubious value, since by their nature values are not efficient; not a means to an end, but ends in themselves.
- 7 According to Lakoff and Johnson thinking is grasped through four fundamental metaphors: moving, perceiving, object manipulation, and eating (1999, pp. 235–244).
- 8 Frank Smith claims that thinking operates naturally most efficiently and there is no need to equip it with tools that lead it step by step (1990). Jean Piaget believed that the effort to spur cognitive development was a uniquely (offensive) American characteristic.
- 9 Fast thinking, according to Kahneman, is our immediate thinking response, while slow thinking is more reflective. An effective teaching thinking might transfer slow thinking attributes to the fast one and make it more reasonable and reflective.
- 10 On the connection between dispositions and recognizing the appropriate circumstance to implement them, see Perkins et al., 2000.
- 11 Hanna Arendt (1971) wrote that the lack of this disposition “to stop and think” enables evil in our world. Nicholas Carr (2011) points to the fact that our subordination to digital media suppresses our disposition to think deeply, to indulge in thinking, “to stop and think.”

- 12 Teaching for understating generates Hegelian Aufhebung; it abolishes, preserves, and transcends meanings of the previous stages.
- 13 Understood knowledge as opposed to “fragile knowledge” (Perkins, 1992) typical to the thesis stage.
- 14 The relation of knowledge to thinking isn’t the relation of food and eating notwithstanding expressions like “to digest an idea,” “food for thought,” “chew things over,” and the like.
- 15 Perkins notes seven understanding performances (1992, p. 77), while I note eighteen understanding performances divided into three categories – presenting knowledge, thinking about and through knowledge, criticizing and creating knowledge (Harpaz, 2011, 2014).

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