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## REFLECTION IN EDUCATION: A KANTIAN EPISTEMOLOGY

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**ABSTRACT.** As even its defenders admit, reflection in education suffers from a lack of conceptual clarity. In this essay, Henk Procee provides a philosophical analysis of the central concepts in this domain. In the current literature, these concepts are usually taken from the pragmatic school of John Dewey and from critical social theory associated with Jürgen Habermas. In contrast, Procee argues that Kant's philosophy incorporates ideas better suited to understanding reflection in education — particularly through his distinction between understanding ("Verstand") and judgment ("Urteilkraft"), a distinction that supports an epistemology that accepts the special nature of reflection as judgment as opposed to formal learning (which, in Kant's analysis, is part of understanding). In addition, Procee discusses some consequences for the aims and methods of reflection in education.

To reflect is to compare and to hold together given presentations either with other presentations or one's cognitive power, in reference to a concept that this [activity] makes possible.  
— Immanuel Kant<sup>1</sup>

### INTRODUCTION

Reflection and reflective practice is one of the most promising innovations in education. To quote just one of its many proponents, it possesses the following characteristics and qualities:

Reflective practitioners think about their experiences in practice and view them as opportunities to learn. They examine their definitions of knowledge, seek to develop broad and multifaceted types of knowledge, and recognise that their knowledge is never complete. Reflective practitioners are concerned about the contexts of their practices and the implications for action. They reflect on themselves, including their assumptions and their theories of practice, and take action grounded in self-awareness. Finally, reflective practitioners recognise and seek to act from a place of praxis, a balanced coming together of action and reflection.<sup>2</sup>

Here, Elizabeth Kinsella presents a set of features one may wholeheartedly embrace. Nevertheless, some hesitations may also arise. Can the notion of reflection support all the above-mentioned goals? Does it cover the required means? Some of the difficulties this concept involves are illustrated by Ilan Gur-Ze'ev, Jan Masschelein, and Nigel Blake. In their essay "Reflectivity, Reflection, and Counter-Education," they criticize the unreflective addition of different meanings to the concept of reflection. As an alternative they propose distinguishing between "reflection" and "reflectivity": on this view, reflection is a central

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1. Immanuel Kant, "First Introduction," in *Critique of Judgment* (1790), trans. Werner S. Pluhar (New York: Hackett, 1987), part v. The original German text is as follows: "Reflektieren aber ist: gegebene Vorstellungen entweder mit andern, oder mit seinem Erkenntnisvermögen, in Beziehung auf einen dadurch möglichen Begriff, zu vergleichen und zusammen zu halten." Note the term "this [activity]" in the translation, which has a double character, serving as both subject and direct object.

2. Elizabeth Anne Kinsella, "Reflections on Reflective Practice," *Canadian Journal of Occupational Therapy* 68, no. 3 (2001): 195–198.

component of critical counter-education while reflectivity is characteristic of hegemonic normalizing education. According to the authors, these two meanings of reflection are not compatible.<sup>3</sup> “Reflectivity” is the product of the philosophies of John Dewey and Donald Schön, whereas “reflection” is the best embodiment of critical social theory.<sup>4</sup>

According to Frank Serafini, the concept of reflection is characterized by its criticism of technical rationality.<sup>5</sup> In its positive aspects, however, the interpretations of reflection are very different. To cover all these interpretations, Serafini distinguishes three dimensions. The first dimension is *purpose* (what is the goal of reflection); the second is *process* (how is reflection exercised); and the third is *focus* (what is the central event or experience to reflect upon). Each dimension represents a continuum between two extreme poles. The left pole stresses the qualities of profession-related issues (“reflectivity,” to use Gur-Ze’ev et al.’s term) while the right pole stresses critical social issues (or “reflection”).

Figure 1 clearly articulates the different elements and domains of reflection. It expresses the possible goals of reflection — from improving technical proficiency, through growth as a professional, to changing a whole society. It shows the possible participants in reflection — from a single individual to a politically inspired community. And it distinguishes different levels of reflection — a technical, problem-solving level; a hermeneutic level focused on interpreting different views; and an epistemic, critical level that emphasizes analyzing

3. Ilan Gur-Ze’ev, Jan Masschelein, and Nigel Blake, “Reflectivity, Reflection, and Counter-Education,” *Studies in Philosophy and Education* 20, no. 2 (2001): 93–106.

4. For work emphasizing “reflectivity,” see, for example, John Dewey, *Democracy and Education* (New York: The Free Press, 1916); John Dewey, *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process* (Lexington, Massachusetts: Heath, 1933); Donald A. Schön, *The Reflective Practitioner* (London: Temple Smith, 1983); and Donald A. Schön, *Educating the Reflective Practitioner* (San Francisco: Jossey-Bass, 1987). See also David A. Kolb’s *Experiential Learning* (Englewood Cliffs, New Jersey: Prentice-Hall, 1984), which has significantly influenced the pragmatic approach to reflection. For a basic book on critical reflection, see Jürgen Habermas, *Knowledge and Human Interests*, trans. Jeremy J. Shapiro (London: Heinemann, 1972). In line with this approach are Jack Mezirow, *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning* (San Francisco: Jossey-Bass, 1990); Stephen D. Brookfield, *Developing Critical Thinkers: Challenging Adults to Explore Alternative Ways of Thinking and Acting* (San Francisco: Jossey-Bass, 1987); and Stephen D. Brookfield, *Becoming a Critically Reflective Teacher* (San Francisco: Jossey-Bass, 1995). For work that represents a combination of both traditions, see, for example, David Boud, Rosemary Keogh, and David Walker, “Promoting Reflection in Learning: A Model,” in *Reflection: Turning Experience into Learning*, eds. David Boud, Rosemary Keogh, and David Walker (London: Kogan Page, 1985), 18–40. David Boud and David Walker have also published numerous articles on this topic.

5. Frank Serafini, “Dimensions of Reflective Practice” (2000), <http://serafini.nevada.edu/Handouts/ReflectivePractice.htm>. See also Christine A. Krol, “Coming to Terms: Reflective Practice,” *The English Journal* 86, no. 5 (1997): 96–97.



Walker suggest that a number of factors caused these undesirable results: misinterpretations of the literature, equating reflection with thinking, and teachers pursuing their own personal agendas at the expense of learners. To overcome such abuses, they recommend the following strategies: not to blur the differences between personal and professional domains, to be precise in distinguishing between reflective and formal learning, to be clear about the context in which reflective activities take place, and to be honest about the aims of reflection.

Boud and Walker are on the mark in their analysis of the abuses and misunderstandings of reflection. Reflective activity in education unmistakably has a structure that is radically different from that of formal learning. Their recommendations, therefore, are to the point. Unfortunately, these recommendations involve only external moral norms.<sup>9</sup> They are not able to incorporate norms intrinsically connected to the "logic" of reflection itself. The reason for this omission can be found in the article they wrote together with Rosemary Keogh: "Despite all that has been written about reflection it is difficult to be precise about the nature of the process."<sup>10</sup>

This brief overview has demonstrated the manifold goals, means, and ideas in relation to reflection in education. It has also shown that reflection in education lacks conceptual clarity. In the remainder of this essay I will argue that some of Immanuel Kant's ideas, in particular his notion of *judgment*, might provide us with a new and promising perspective on this issue.<sup>11</sup> In order to make this case, I will first present some ideas on reflection that are close to Kant's view. Next, I will focus on Kant's own ideas. Finally, I will bring to the fore some consequences of Kant's view for the practice of reflection in education itself.

#### REFLECTION: NEGATIVE OR POSITIVE?

Reflection in education has different roots in Western philosophy. Some highlights are well-known: René Descartes, who declared self-inspection the basis of his epistemology; Kant, who postulated the autonomous and enlightened subject; Dewey, who insisted on reflective experience; Max Horkheimer and Theodor Adorno, who criticized instrumental rationality; and Jürgen Habermas, who embraced a broad concept of rationality.<sup>12</sup> Most influential are two, very different, philosophical schools: the pragmatist school of John Dewey and the so-called Frankfurt school of critical social theory (especially the early work of Habermas). For these schools reflection means different things. Reflection, according to

9. Especially the norms described by Jürgen Habermas in his *Theory of Communicative Action*, trans. Thomas McCarthy (1984; repr. Cambridge: Polity Press, 1987).

10. Boud, Keogh, and Walker, "Promoting Reflection in Learning," 21.

11. See Henk Procee, *Immanuel Kant en het volle leven* [Immanuel Kant and the human condition] (Budel: Damon, 2004).

12. For some overviews, see Israel Idalovichi, "Grounds and Perspectives of Critical Reflection — An Educational and Philosophical Inquiry," *Essays in Education* 6 (2003); Lynn Fendler, "Teacher Reflection in a Hall of Mirrors: Historical Influences and Political Reverberations," *Educational Researcher* 32, no. 3 (2003): 16–25; Jan Bengtsson, "What Is Reflection? On Reflection in the Teaching Profession and Teacher Education," *Teachers and Teaching: Theory and Practice* 1, no. 1 (1995): 23–32; and Jan Bengtsson, "Possibilities and Limits of Self-Reflection in the Teaching Profession," *Studies in Philosophy and Education* 22, no. 3–4 (2003): 295–316.

Dewey, means being thoughtful in approaching any inquiry and not acting according to a trial-and-error scheme. Reflection in relation to critical social theory may be expressed by the famous phrase of Ernst Bloch: "*Das was ist kann nicht wahr sein*" ("What is cannot be true").<sup>13</sup> It takes a critical stance toward the (repressive) actual situation, thus opening up a horizon of liberation.

As these formulations suggest, reflection has a critical character. It is an antidote against technical, theoretical, political, and cultural powers — powers that might be exercised on individuals, professional practices, and cultural groups. Although one may always welcome liberation from external and even internal powers, such liberation is not without complications. One such complication is that liberation in one domain may be in conflict with liberation in another domain. An even more complicated issue relevant to this article is the asymmetrical relationship between positive and negative liberation.<sup>14</sup> Liberation *from* some repressing instance is relatively easy to understand, but liberation *to* something new (for example, an epistemological order, a cultural order, or a political order) is much harder to comprehend.

The question arises whether critical aims would be sufficient for understanding reflection as a specific activity. The answer must be in the negative. As Max van Manen pointed out, what is missing in most approaches to reflection in education is an *epistemology* of reflection.<sup>15</sup> Such an epistemology would aim at understanding the nature, structure, and processes of reflection. In order to articulate what is meant by an epistemology of reflection, it is instructive to recall a discussion between Habermas and Chaïm Perelman. Parallel to Pascal's distinction between *l'esprit géométrique* and *l'esprit de finesse*, Perelman drew a distinction between "rationality" and "reasonableness." He raised the question of how these notions could be expressed in the German language. Habermas's response to Perelman relies on the notion of judgment:

I take your distinction and opposition between rational and reasonable as a warning against mistakes in three dimensions. I can formulate them in the imperative mode. First, don't mistake substantive questions for merely formal ones. That is, don't rely on deductive reasoning alone if there is need for inductive reasoning or abductive reasoning or whatever. Second, don't mistake questions that should be put to the test of practical discourse for theoretical questions. Finally, don't expend too much effort on argumentation where you should be using common sense. This is a very simple attempt to rearrange somehow your distinction. But if you do so, then you can

13. Ernst Bloch, *Philosophische Grundfragen* [Basic Philosophical Questions] (Frankfurt am Main: Suhrkamp, 1961), 65.

14. Isaiah Berlin analyzed this tension in his famous study *Two Concepts of Liberty* (Oxford: Clarendon Press, 1958). In line with this distinction, Charles Clark tries to point out that politically oriented critical views of reflection — in particular, the "action research" view of Stephen Kemnis and Wilfred Carr in their book *Becoming Critical: Education, Knowledge and Action Research* (London: Falmer Press, 1986) — may have totalitarian implications. Clark especially criticizes the influential equalization of liberation and psychoanalysis. According to him, psychoanalysis might be appropriate for the sick soul, but it is not apt for a flourishing human being. See Charles Clark, "Carr and Kemnis's Reflections," *Journal of Philosophy of Education* 35, no. 1 (2001): 85–100, esp. 95.

15. Max van Manen, "On the Epistemology of Reflective Practice," *Teachers and Teaching: Theory and Practice* 1, no. 1 (1995): 33–50.

reintroduce the German notion of “Vernunft”; “to be reasonable” then means not to make mistakes with the means of rationality. It is a certain kind of metarational capacity, and just this is called “Urteilkraft.” And “Urteilkraft” is an element of reason, if not the highest one.<sup>16</sup>

This ode to judgment — a capacity not to make mistakes with the means of rationality — points to a famous Kantian distinction: the distinction between “Verstand” (understanding) and “Urteilkraft” (judgment). However, in spite of his praise of “Urteilkraft,” Habermas hardly elaborated this idea in his extensive studies. Above all, his work emphasizes theoretical and conceptual issues. Because of this emphasis, the notion of judgment scarcely enters into the tradition of reflection based on his ideas.

Van Manen, consequently, tries to unravel this epistemology by introducing a special term for this capacity of the human mind: *tact*. In his explanation, he points out three important aspects of tact: (1) a highly developed sensitivity to situations and persons; (2) a well-cultivated capacity to combine heterogeneous aspects, without having explicit rules for doing so; and (3) the unique role of the individual involved in this process. Van Manen asserts that “tact should neither be seen as a theoretical form of knowledge nor as pre-theoretical social practice; and while the notion of tact is inherently a factor of personal style...it is also at the same time inherently an intersubjective, social, and cultural ethical notion.”<sup>17</sup> According to him, tact is, first, a particular sensitivity and sensitiveness to situations of human interaction. Second, it is the sense of scholarship that scientists or practitioners draw on in doing their work in a broader — aesthetic, societal, and historical — context. Third, it is a kind of practical normative intelligence that is governed by insight while relying on feeling.<sup>18</sup> This epistemological idea explains why van Manen is critical of the idea of critical reflection:

Indeed we may sometimes put a misplaced emphasis on critical reflection in education. The aim of critical reflection is to create doubt and critique of ongoing actions. But it is obviously not possible to act thoughtfully and self-confidently while doubting oneself on the same thing...It would disturb the functional epistemology of practice that animates everything that they do.<sup>19</sup>

Although the resemblance to Kant’s notion of judgment is overwhelming, van Manen himself does not refer to Kant. Therefore, I will proceed by concentrating on two other essays that indicate in a direct way the meaning of the notion of judgment — the first of these claims the importance of determinative judgment for education, and the second presents an analysis of the relation between reflective judgment and professional practice.

#### PRACTICE AND JUDGMENT

In his later works, Kant makes a distinction between two kinds of judgment — determinative judgment and reflective judgment. The first is at stake when one tries

16. Habermas quoted in Chaïm Perelman, “The Rational and the Reasonable,” in *Rationality To-Day/La Rationalité Aujourd’hui*, ed. Theodore F. Geraets (Ottawa: University of Ottawa Press, 1979), 224.

17. Van Manen, “On the Epistemology of Reflective Practice,” 43.

18. *Ibid.*, 45.

19. *Ibid.*, 48.

to situate something particular under a given universal concept or idea, the second when one seeks to bring forward some kind of unity about particulars without having at one's disposal a general concept or idea. This difference plays an important role in David Mulroy's ominously titled essay "The War Against Grammar." A determinative judgment, so he correctly says, is one in which a set of rules or concepts is stipulated and applied to a particular situation. For example, a meteorologist classifying clouds as cirrus or cumulonimbus is making a determinative judgment. About reflective judgments, Mulroy is less precise, but it is informative to follow his argumentation:

The difference is that in reflective judgments the choice of concepts is open. Reflective judgments are relaxed because they let the mind act freely. They are rarely wrong because the person who makes them uses whatever rules or concepts come to mind and judges only those details of a situation that he notices. Determinant judgments are much harder. You lose your freedom. You have to play by given rules, understand them, and remember them correctly. If you don't notice all the relevant details, you will be wrong.<sup>20</sup>

Based on this distinction, Mulroy criticizes the ideology of reflection in education:

For years progressive educators have done what they could to minimize the use of determinant judgment in education. The war against grammar is just one of their more successful efforts in this area. The effort to enhance student freedom by minimizing determinant judgments is profoundly misguided. Education serves no more important purpose than developing the capacity to make accurate determinate judgments, which are essential to every practical endeavor. One consults doctors, lawyers, mechanics for determinant diagnoses, not reflective impressions.<sup>21</sup>

Mulroy's provocative essay may exaggerate the differences between the two kinds of judgment and it may underestimate the value of reflective judgment. Nevertheless, it points to some important aspects of education. Liberation ought not be the only aim of education, but also — and in this aspect I agree with Mulroy — education should introduce different professional practices and the criteria for evaluating the quality of those practices.<sup>22</sup> Such an introduction requires learning and understanding the central concepts and theories, which cannot be mastered without exercising determinative judgments. Mulroy makes clear that such exercising is tough work and not some kind of deductive automatism. Connecting experiences to concepts and theories requires specific activities of the mind — determinative judgment, in other words.

In a radically different but also Kantian voice, George Khushf explains why reflective judgments are important for practice. His analysis of reflective judgment is deeper and more sophisticated than Mulroy's. Khushf achieves this by stressing Kant's underlying idea of reflective judgment, something Kant called the

20. David Mulroy, "The War Against Grammar," *Wisconsin Interest* 8, no. 2 (1999): 14.

21. Ibid., 15. A sympathetic treatment of the ideology of reflection in education can be found in David Coulter and John R. Wiens, "Educational Judgment: Linking the Actor and the Spectator," *Educational Researcher* 31, no. 4 (2002): 15–25. Coulter and Wiens try to remove the hierarchical relation between educational theory and educational practice. For that aim, they embrace Hannah Arendt's interpretation of Kant's notion of reflective judgment. In contrast to Mulroy, they take education merely as a field of (political) "action," neglecting two other aspects of "the human condition" — "labor" and "work."

22. This is also a central thesis of Henk Procee, *De Nieuwe Ingenieur: Over Techniekfilosofie en Professioneel Handelen* [The New Engineer: Philosophy of Technology and Professional Work] (Amsterdam: Boom, 1997).

“subjective purposiveness” of reality. Prior to any experience, we have the deep conviction that reality is, in principle, understandable by us. We assume that reality exists as if it were adapted to our ability to have knowledge of it. This basic idea guides human searching activities, since it inspires us to bring many and varied particulars into some unity. In situations in which the universal (for example a theory) is absent, that idea of purposiveness continues to function, although only as a *feeling*. That is especially true in the case of aesthetic judgments where understanding and imagination come together without being defined according to external concepts. It is also the case in situations of practical investigation, where this feeling operates as a sense or anticipation that the aim of understanding will be satisfied. Khushf, who is writing in a medical context, makes clear that such a view is important to the diagnostic process in medicine, but his view can be generalized to any practice:

The diagnostic process can be regarded as an activity that involves both determinative and reflective judgment....In determinative judgment, specified signs and symptoms are brought under the concept (the disease category) in a relatively mechanical way....However, this is only one part of diagnosis....It assumes a manifold that is already available for understanding, i.e. one that has been “worked up”...That propaedeutic practice involves a reflective judgment.<sup>23</sup>

On these grounds, Khushf makes it clear that in the activity of reflective judgment the emphasis is on coordination rather than on subordination of particulars under universals. In medical practice, such coordination activities point at making *wholes* from disparate elements:

In the interplay of imagination and understanding associated with reflective judgment, there is not just one whole, but two. There is the undetermined whole, which one orders to a conceptual unity. This is the individual patient, as a person who interacts with the physician for the common end of effectively responding to the patient’s health needs. Here, the whole issue is not just the patient, but the physician-patient relation, which must be ordered toward an effective clinical encounter. In addition, there is also the whole of the physician’s medical knowledge. In the initial history and physical exam, there is a hermeneutical process, in which the whole of the physician’s world (the sum of theory, experience, and meta-theory) is harmonized with...the physician-patient encounter.<sup>24</sup>

Khushf articulates some important aspects of Kant’s view. First, he underscores (and thus strongly improves upon Mulroy’s analysis) the notion of “subjective purposiveness,” which accompanies and leads the investigations of practitioners. Second, he offers an important insight into the epistemology of professional practices by describing the search for “wholes” in terms of linking determinative and reflective judgments. Third, he articulates feelings every practitioner experiences — feelings such as “Well, this is right — I have got it!” when someone has found a (theoretical) universal or a (practical) whole; and the opposite feeling such as the idea that “There is something wrong. I cannot grasp it!” when one is searching for a unity that is hard to find.

Whereas Mulroy stresses almost exclusively the importance of determinative judgment for practices, Khushf also emphasizes the importance of reflective

23. George Khushf, “The Aesthetics of Clinical Judgment: Exploring the Link Between Diagnostic Elegance and Effective Resource Utilization,” *Medicine, Health Care and Philosophy* 2, no. 2 (1999): 148.

24. *Ibid.*, 154.

judgment. Notwithstanding his explicit approval of determinative judgments, he seems implicitly to denigrate them as automatic and mechanical. In order to understand more clearly what Kant meant, I will discuss his own ideas on judgment.

#### KANT ON JUDGMENT

Kant articulated three definitions of judgment ("*Urteilkraft*"): the first in his *Critique of Pure Reason*, the second in his "First Introduction" to the *Critique of Judgment*, and the last in the "Second Introduction" to the *Critique of Judgment*. In the first definition, Kant drew no contrast between reflective and determinative judgment at all: "If *understanding* in general is to be viewed as the faculty of rules, *judgment* will be the faculty of subsuming under rules; that is, of distinguishing whether something does or does not stand under a given rule (*casus datae legis*)."<sup>25</sup> In the second definition, Kant makes a distinction between the two kinds of judgment. That distinction is less absolute than is often assumed, because Kant adds the clause "in terms of a certain principle" to reflective judgments:

Judgment can be regarded, either as mere[ly] an ability to *reflect*, in terms of a certain principle, on a given presentation so as to [make] a concept possible, or as an ability to *determine* an underlying concept by means of a given empirical presentation. In the first case it is the *reflective*, in the second the *determinative*, power of judgment.<sup>26</sup>

The last definition, which points to the ability to relate the particular and the universal, seems most clearly to express the distinction between determinative and reflective judgment, although the parenthetical comment again points out some restraints on the supposed difference:

Judgment in general is the ability to think the particular as contained under the universal. If the universal (the rule, principle, law) is given, then the judgment, which subsumes the particular under it, is *determinative* (even though [in its role] as transcendental judgment it states a priori the conditions that must be met for subsumption under that universal to be possible). But if only the particular is given and judgment has to find the universal for it, then this power is merely *reflective*.<sup>27</sup>

An obvious question, therefore, is whether Kant changed his view on judgment from the first to the third *Critique*. Some years ago, Béatrice Longuenesse published a scholarly study on Kant and judgment in which she forcefully argues for the interpretation that Kant did not change his views.<sup>28</sup> According to her, what is unique to the third *Critique* is not the affirmation of the distinction, but rather the idea that there are judgments (aesthetic and teleological) that are *merely* reflective. For Longuenesse, reflection and determination are complementary aspects

25. Immanuel Kant, *Critique of Pure Reason* (1781), trans. Norman Kemp Smith (London: Macmillan, 1929): B170ff.

26. Immanuel Kant, "First Introduction," in *Critique of Judgment*, part v (emphasis in original).

27. Immanuel Kant, "Second Introduction," in *Critique of Judgment*, part iv.

28. Béatrice Longuenesse, *Kant and the Capacity to Judge* (Princeton: Princeton University Press, 1998). For comments on this work, see Henry E. Allison, "Where Have All the Categories Gone? Reflections on Longuenesse's Reading of Kant's Transcendental Deduction," *Inquiry* 43, no. 1 (2000): 67–80; and Sally Sedgwick, "Longuenesse on Kant and the Priority of the Capacity to Judge," *Inquiry* 43, no. 1 (2000): 81–90. See also Henry E. Allison, *Kant's Theory of Taste: A Reading of the Critique of Aesthetic Judgment* (Cambridge: Cambridge University Press, 2001).

of judgment.<sup>29</sup> Her argument is quite convincing and is in line with the few remarks just made regarding Kant's definitions. Given this, I think it appropriate to concentrate on Kant's first definition of judgment.

Usually, in studies of Kant's philosophy this definition is neglected or underestimated. The background for this disregard can be traced to an interpretation of judgment as logical deduction, according to which judgment is a chain of argumentation, such as "All men are mortal, Socrates is a man; so, Socrates is mortal." Because of the resemblance between the major and minor premises, the complex nature of judgment easily disappears. For Kant, the character of judgment is completely different from a deductive chain of reasoning. Judgment is a special faculty or power of the mind, a faculty not governed by (logical) rules; instead, it is a (personal) power to determine which concepts and theories are and are not appropriate for "concrete" situations. Judgment, in other words, is not performing homogeneous (logical) operations but connecting heterogeneous (logical, theoretical, personal, empirical, and practical) elements.

Understanding is necessary for knowledge. According to Kant, it is the mental capacity to formulate and to grasp logical relationships, concepts, theories, and laws (in Kant's terminology, *rules*). Judgment is of a completely different order. It is the power to determine which rules (concepts, theories, and so on) are best aligned with concrete situations and problems. Henry Allison, who presents a clarifying analysis, takes the game of chess as an apt illustration.<sup>30</sup> Understanding the game requires grasping its rules and goals. Without this knowledge, one would be unable to play chess at all. However, such knowledge is not enough, as any beginner may testify. Learning to make a *good* move, rather than simply an *allowed* move, requires insight into the complex situations in the field — and here judgment comes into play. Hence, judgment is not an easy or straightforward deduction, but a deep and finely tuned interpretation of the situation at hand. For epistemological reasons, then, as well as for logical ones (to avoid an infinite regression in relation to rule following), this view led Kant to the following consideration: "And thus it appears that, though understanding is capable of being instructed, and of being equipped with rules, judgment is a peculiar talent which can be practised only, and cannot be taught."<sup>31</sup> Kant suggested that examples instead of rules should be used to develop the power of judgment. Where rules can be learned from others in a rather straightforward way, judgment is bound up with the individual — something the following observation, which appears to be very important for understanding

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29. Longuenesse, *Kant and the Capacity to Judge*, 163ff.

30. Henry E. Allison, *Kant's Transcendental Idealism: An Interpretation and Defense* (New Haven: Yale University Press, 2004), 204ff.

31. Kant, *Critique of Pure Reason*, B172.

reflection in education, makes clear: “the power of rightly employing them [rules] must belong to the learner himself.”<sup>32</sup>

One of Kant’s more remarkable theses concerns lack of judgment. He called this specific deficiency stupidity, and not, as is usually assumed, lack of understanding. It seems ironic that this great rationalist gave a rebuke to intellectualization:

Deficiency in judgment is just what is ordinarily called stupidity, and for such a failing there is no remedy. An obtuse or narrow-minded person to whom nothing is wanting save a proper degree of understanding and the concepts appropriate thereto, may indeed be trained through study, even to the extent of becoming learned. But as such people are commonly still lacking in judgment, it is not unusual to meet learned men who in the application of their scientific knowledge betray that original want, which can never be made good.<sup>33</sup>

For Kant, so I would conclude, the main distinction is not between determinative and reflective judgment, but between judgment and understanding. Building on this distinction, I will try to formulate some epistemological aspects of reflection in education.

#### TOWARD A KANTIAN EPISTEMOLOGY OF REFLECTION IN EDUCATION

Kant’s approach can be visualized schematically (see Figure 2). It consists of three different parts, which should not be blurred — understanding, judgment, and experience (respectively, rules, connections, and reality). Understanding is related to the ability to grasp logical, theoretical, and conceptual rules; judgment is related to the ability to connect experiences with rules.

A Kantian epistemology of reflection in education now requires an elaboration of this scheme. I will articulate that epistemology in three theses:

1. Learning formal knowledge has to be characterized primarily in terms of Kant’s notion of understanding.
2. Exercising reflection in education has to be characterized primarily in terms of Kant’s notion of judgment.
3. Because of the first and second theses, reflection does have a character that differs radically from learning formal knowledge.<sup>34</sup>

An important element in this Kantian epistemology is the distinction between the realm of understanding and the realm of judgment. Both are important in the field of education — students have to learn existing concepts and theories in their speciality (understanding), but they also have to learn to make connections

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32. Ibid.

33. Ibid.

34. I twice used the adverb “primarily” in these theses because the distinction Kant drew between understanding and judgment is in need of some qualification. In learning processes, that distinction is less absolute than he assumed. Learning concepts and theories also involves exercising (determinative) judgment; furthermore, exercising (reflective) judgment may require the use of concepts. Notwithstanding this qualification, the difference remains very significant. In formal learning understanding is the central issue with judgment playing (at most) a secondary role, whereas in reflection judgment is primary and understanding secondary.

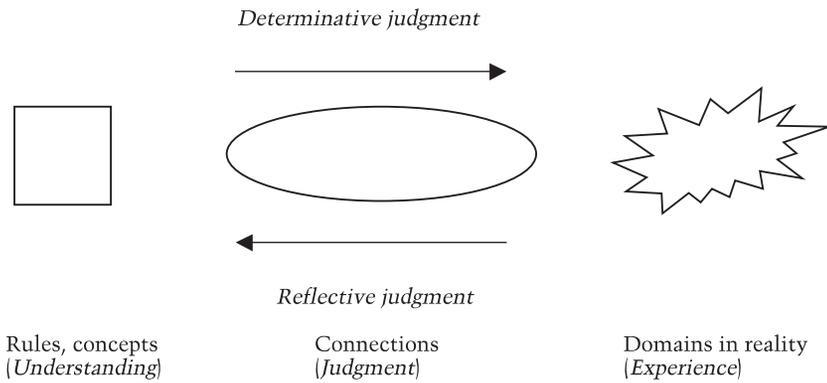


Figure 2. A Kantian Epistemology of Reflection

between their state-of-art knowledge and the domains of reality in which they are operating (judgment).

Do not reserve your concepts and theories for reality itself; such an attitude is dangerous and even stupid — that is one of Kant’s main messages. He also defended the reverse: do not neglect concepts and theories that may be useful for understanding experiences. Judgment is the ability to couple the left-hand side with the right-hand side of the scheme. When the concepts are pre-given, determinative judgment is predominant, and when experiences are the starting point, reflective judgment comes into play. Nevertheless, as the scheme shows, in most cases we use a combination of both types of judgment in order to relate heterogeneous elements (rules, on the one hand, and experiences, on the other). Judgment is, first and foremost, a searching activity and should therefore be characterized in terms of discovery. Its role can be described, in the phrase of Phyllis Chiasson, as operating in the field of *inbetweenness*.<sup>35</sup>

The epistemological distinction between understanding and judgment is relevant for any practice, be it medicine, education, science, or something else. Most practitioners use both capacities of the mind in an almost automatic way. In some situations, generated by perplexity or by an educational context, that automatism may be challenged. For understanding and organizing such situations, it is important to be aware of the differences between the two capacities. Table 1, which addresses education in a certain discipline, summarizes different related issues and educational activities in both areas.

In the “understanding” column, the conceptual and theoretical content of the discipline is central, the teacher is supposed to be the expert, and the focus is on formal learning. In the “judgment” column, the individual student is central, and

35. Phyllis Chiasson, “Peirce and the Philosophy of Education,” *Encyclopaedia of Philosophy of Education* (1999), <http://www.vusst.hr/ENCYCLOPAEDIA/peirce.htm>.

TABLE 1. COMPARISON OF EDUCATION IN UNDERSTANDING AND EDUCATION IN JUDGMENT

<i>Issues</i>	<i>Education in "Understanding"</i>	<i>Education in "Judgment"</i>
<i>Objectives</i>	Subject matter of the domain	Personal/professional horizon
<i>Format of goals</i>	Closed objectives	Open objectives
<i>Esprit</i>	Géométrique	Finesse
<i>Rendering assistance</i>	Just in time information	Just in time feedback
<i>Communication</i>	Explicit, rule-based, and objective	Subjective-universal <sup>36</sup>
<i>Working on task</i>	Doing what has been demanded	Choosing what is best
<i>Evaluating</i>	Auditing the correct realization	Auditing the fruitful development
<i>Exercising</i>	Individual exercises	Conjoint exercises
<i>Results</i>	Collective knowledge	Individual insights

students have to deal with many uncertainties. The contrast between the two columns makes clear that reflection in education is a unique activity. It demands, on the one hand, that students adopt an "autonomous" attitude and, on the other, that teachers adopt a "coaching" attitude.<sup>36</sup>

At this point, it is worthwhile to return to Boud and Walker. Their work argues against misunderstandings and abuses of reflection in education. My thesis is that the Kantian epistemology, as articulated in this essay, avoids these abuses through the distinction it makes between the notion of understanding and the notion of judgment. Whereas understanding is related to formal education in which the conceptual and theoretical content of a discipline is dominant, judgment is related to individuals, who make all kinds of connections in their attempts to discover the world, their profession, and themselves. Therefore, reflection understood as the exercise of judgment cannot be reduced to following a recipe (although it may be stimulated by the desire to impose some organization). It takes experiences seriously, but it is not uncritical about them, since experiences offer the materials to reflect upon. Teachers may facilitate the reflection of students, but their purpose cannot be more than helping students in their individual learning processes. To counteract the misunderstandings and abuses of reflection in education, Boud and Walker do not need to accept external moral notions, such as

36. The term *subjective-universal* may require some explanation. Kant introduced this expression in his *Critique of Judgment*. It tries to cover the nature of communication when one does not have clear concepts or criteria to make a definite judgment, when logical argumentation is (partly) out of order. This type of communication does not refer to an objective rule, but instead consists of inviting one another to see things from different perspectives, thereby widening and changing the existing perspectives. His expression *subjective-universal* places the obtained outcomes in between objective and subjective judgments. A subjective-universal judgment is subjective and personal, but it is also an invitation — a prescriptive — to others to share one's view, and it therefore also has a specific universal character. As might be clear, this type of communication implies a combination of feelings and insights; furthermore, it is vulnerable because it can be harmed by someone's inability or unwillingness to take seriously the feelings and insights of the participants. When postulating that reflection in education is related to judgment, this subjective-universal kind of communication will be essential; in formal learning, which is related to Kant's notion of understanding, communication might be more objective.

"*herrschaftsfreie*" communication. In a Kantian epistemology, it will suffice to recognize the special nature of reflection as judgment, in contrast to formal learning, which is part of understanding.

From the Kantian epistemology another insight also arises. It makes clear that judgment is a much more intricate concept than can be captured by a simple linear model of successive phases, such as the one characteristic of the Deweyan tradition of reflection. A specific problem with such models is their orientation toward *improvement*. Psychologically, such a view implies that the learner must take a negative attitude toward his or her past performances. That negative orientation may have the effect of instilling in students an aversion to reflection. A similar problem can be found in politically critical models of reflection. In contrast to models emphasizing direct improvement and emancipatory criticism, the Kantian epistemology is emotionally less burdensome because it emphasizes the making of *discoveries* (in the field of specialization, in the persons themselves, in the wider social world).

The distinction between understanding and judgment also gives a clue about how best to make use of reflection in education (in addition to formal education). Reflection is connected with the domain of judgment. In that domain a student has to make discoveries according to his or her personal style. Because judgment is situated between experiences and understanding (concepts), reflection activities depend on the breadth of the experiences, as well as on the feasibility and productivity of the concepts introduced for inquiry into those experiences. Some concepts may only produce superficial discoveries (for example, low-level evaluations), whereas others may position themselves at too great a distance from experiences (for instance, highly abstract philosophical concepts).<sup>37</sup> The famous observation by Kant that "Thoughts without content are empty, intuitions without concepts are blind" just needs a minor amendment to be appropriate for characterizing reflection in education: "Concepts without experience are empty, experiences without concepts are blind."<sup>38</sup>

#### TOWARD A SYSTEMATIC APPROACH

In the "First Introduction" to the *Critique of Judgment* Kant articulated a definition of reflection: "To reflect is to compare and to hold together given

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37. In *Higher Education*, Ronald Barnett presents a well-balanced scheme of possible concepts for reflection in education. It shows the *breadth* of reflection by distinguishing three domains that may be the object of reflection: the problem at hand (knowledge, skills, approach), the self (including both professional and personal identity), and the social context (broader public, political, and environmental factors). It shows the *depth* of reflection by distinguishing among four levels of reflection. The 0-level, evaluation, is hardly reflection because it refers to assessment against given criteria. The 1-level, technical reflection, refers to creatively solving a problem in a certain context. At the 2-level, the interpretative level, one explores one's own assumptions and standards of approach and examines how they could be related to other persons involved, who would have different assumptions and standards. At the 3-level, critical reflection, one explores the (often implicit) fundamental scientific, cultural, and ethical pre-suppositions of one's approach.

38. Kant, *Critique of Pure Reason*, B75.

*presentations either with other presentations or one's cognitive power, in reference to a concept that this [activity] makes possible.*"<sup>39</sup> This definition may now be comprehensible. To reflect is the activity of comparing and holding together given presentations with something different. It is important to note that reflection is not just comparing, but also holding together — bringing forward a nonalgorithmic unity or a new insight. That something different — with which given representations will be compared — can be either other presentations or one's cognitive points of reference. Reflection is not just engaged in the knowledge of the outside and inside world, but also in one's cognitive (and other) presuppositions. A striking element of the definition is the last part — that is, the idea that the activity of reflection takes place in relation to a concept, which will also be enabled by this activity. Essential in this formulation is the double function of concepts in reflection: they function as a source of inspiration *and* as an outcome. In this essay *purposiveness* has served as an example of such a concept.

Kant's definition of reflection inspired me in structuring the reflection courses I was asked to organize at my university.<sup>40</sup> The basic idea of Kantian epistemology is the tripartite model of concept (understanding), field of inbetweenness (judgment), and domains in reality (experience). My educational goal in these courses was to ascertain how to realize fruitful fields of inbetweenness. As is well known, Kant developed in his *Critique of Pure Reason* a table of the moments of thought: quantity, quality, relation, and modality. He used this table in several works in order to analyze thoroughly the issues he was investigating: in the *Critique of Pure Reason*, for bringing about the categories for understanding; and in the *Critique of Judgment*, for analysing the judgment of taste. Here I will use the same notions in order to give a basic structure to the activities of reflection. Of course, the fundamental idea of reflection as judgment can be elaborated in many different ways. Nevertheless, I contend that Kant's four moments of thought can be usefully adapted and developed for a systematic approach to reflection.

Because Kant's analysis in the *Critique of Judgment* is most congenial to reflection in education, it is worthwhile to list the four moments from this work:

- *Quantity* refers to the determination of the "object of perception" in the "free play of the imagination" (because that object is not a given).
- *Quality* refers to a special disinterested satisfaction (in which feeling and understanding go hand in hand).
- *Relation* refers to the processes of experiencing different connections in and around the "object."

39. Kant, "First Introduction," part v. Here I use my own translation from German, because the otherwise admirable translation by Pluhar is not as clear on this point as one would wish.

40. These courses were specifically developed for students at the University of Twente, who worked on a research or design project over a period of months.

- *Modality* refers to the (logical) status of the judgment (subjective-universal).

The first moment relates to how one makes discoveries in an experience, because the “object” on which to reflect is not pre-given but has to be determined as such. The second moment makes clear that developing value judgments is more than just an assessment; it also involves personal approval and justification in a wider context. The third moment focuses on discovering not just one’s own interpretation, but on recognizing the many other interpretations possible too. The last moment hints at the specific status of the activity of judgment, which is characterized by its position between objectivity and subjectivity.

Each moment generates a different type of reflection. For instance, *quantity* — an indiscriminate concept (or image, or narrative) placed outside the experience — creates a reflective space that stimulates learning discoveries. It generates new and unexpected views on experience. Many practical proposals for reflection in education (for example, keeping a diary, or working together in a Socratic seminar) can be understood as realizations of this moment of thought. The moment of *quality* is about points of view that may be helpful to estimate (elements of) experiences and choices (that have been made). This aspect is more than a mere assessment of experiences because the standards for evaluation will provide the substance for reflection, too, as well as giving rise to feelings of harmony and disharmony. The moment of *relation* brings about dynamic elements by introducing points of view that are related to different visions from a professional as well as a social context. In the case of *modality*, reflection reflects on the reflection process itself and on aspects of (professional) identity.<sup>41</sup>

#### FINAL REMARKS

Reflection in education is a field full of promises: promises for improving professional proficiency, for fostering personal growth, and for increasing social justice. This promising character makes reflection very attractive. The price, however, is that the huge amount of literature in this field highlights the lack of conceptual clarity that exists. Explanations for this deficiency may lie in the incongruity of the main philosophical schools on which reflection has been built, the inability to transform negative aims into positive ones, and the lack of an epistemology of reflection. In this essay, I have tried to articulate such an epistemology. I want to conclude with some final remarks based on the Kantian epistemology of reflection. First, by exploring such an epistemology my goal has been to describe the possibilities as well as the limits of the aims that can be justified in terms of reflection. Because of the intimate relation between the individual subject and judgment, reflection, in my view, is first and foremost aimed at personal and professional empowerment. The second point I want to make is that practitioners such as medical doctors, teachers, and scientists need to develop the

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41. Elsewhere Irene Visscher-Voerman and I published an article that describes the educational organization and the results of this approach. In it we introduced geometrical names for the different types of reflection: point reflection (quantity), line reflection (quality), triangle reflection (relation), circle reflection (modality). See Henk Procee and Irene Visscher-Voerman, “Reflecteren in het onderwijs — een kleine systematiek” [Reflection in education — a systematic approach], *VELON* 25, no. 3 (2004): 37–45.

ability of reflection, not only to be critical about their practice, but also in order to act in a self-confident, professional way. Third, I want to stress that, in education, formal learning and reflection are complementary activities. It would be inappropriate to consider these two activities as competing aspects. My fourth point is that it would be advisable to separate the activities of reflection and formal learning, because of the completely different ways of coaching and assessing each of them. The fifth and last point I want to make is based on the notion I borrowed from Max van Manen. Reflection aims at developing *tact* — in its many meanings. In general, the term stands for a highly developed sensitivity for (combining) heterogeneous elements, in professional work, in personal life, and in social relations. The many synonyms of this term make that clear: discretion, diplomacy, dexterity, skill, and insight. Stimulating such qualities in students is really a promising challenge in education.

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