Critical Thinking, Autonomy and Practical Reason

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This article points out an internal tension, or even conflict, in the conceptual foundations of Harvey Siegel’s conception of critical thinking. Siegel justifies critical thinking, or critically rational autonomy, as an educational ideal first and foremost by an appeal to the Kantian principle of respect for persons. It is made explicit that this fundamental moral principle is ultimately grounded in the Kantian conception of autonomous practical reason as normatively and motivationally robust. Yet this Kantian conception openly conflicts with Siegel’s own two-component theory of critical thinking, which on close inspection turns out to be a version of the Humean conception of instrumental practical reason as normatively and motivationally powerless. It is concluded that Siegel cannot have it both ways: he cannot appeal both to means-end and to robust rationality. Siegel’s Kantian justification of the critical thinking educational ideal is, therefore, found wanting in terms of his own Humean premises.

INTRODUCTION

In contrast with primitive cultures, or theocratic ones, our Western liberal democracy places a very high value on rationality and autonomy. Accordingly, liberal education and schooling promote these two values as educational ideals or aims, as illustrated by the following quotations:

Rationality . . . is a matter of reasons, and to take it as a fundamental educational ideal is to make as pervasive as possible the free and critical quest for reasons [critical thinking], in all realms of study (Scheffler, 1973, p. 62).

[T]he development of autonomy as an educational aim . . . is the development of a kind of person whose thought and action in important areas of his life are to be explained by reference to his own choices, decisions, reflections, deliberations—in short, his own activity of mind (Dearden, 1972, p. 70).
In this paper, I first outline Harvey Siegel’s ‘reasons’ conception of critical thinking and its relevance as an educational ideal. I then bring out and discuss the relation of this reasons conception and the attendant ideal to two different conceptions of autonomy: the critically rational conception and the Kantian conception. Within the sphere of practical reason, I then level a critique against the use Siegel makes of Kantian autonomy in his justification of critical thinking—or, what amounts to the same thing, of critically rational autonomy—in an educational context. My argument alleges that Siegel’s two-component theory of critical thinking lacks the theoretical resources to make the justificatory role of Kantian autonomy intelligible. There exists an irresolvable tension between Kant’s robust conception of practical reason and Siegel’s instrumental conception of critical thinking rationality.

SIEGEL’S REASONS CONCEPTION

I begin by sketching Siegel’s conceptualisation of critical thinking (Siegel, 1988, pp. 32–42; 1997, pp. 2–4). According to Siegel, critical thinking is fully coextensive with rationality, and not merely a dimension of it. Critical thinking is the ‘educational cognate’ of rationality because both concentrate on the relevance of reasons in believing (or judging) and acting. On Siegel’s reasons conception, then, a critical thinker is one who is appropriately moved by reasons in thought and action. This conception comprises two related, but conceptually distinct, dimensions: the reason assessment component and the critical spirit component. Reasons have probative or evidential force as well as normative impact. The first component takes care of the epistemic property of reasons while the second captures the motivational one. Let me detail this two-component theory of critical thinking a little.

The reason assessment component

According to Siegel, a critical thinker is one who has the skill or ability to assess reasons (and arguments) in the light of epistemic (and logical) criteria. A critical thinker is not just moved by any reason whatsoever in his thinking and acting: he is rationally moved in an appropriate way. In other words, a critical thinker takes epistemic responsibility for his thinking. To be appropriately moved by reasons is to appreciate and accept the importance and evidential force of reasons for beliefs and actions. In order to determine the relevance and warranting strength of reasons, a critical thinker needs on Siegel’s conception, moreover, to recognise and commit himself to epistemic criteria or standards. Such principles of reason assessment guarantee the consistency, impartiality and non-arbitrariness of reasons. Critical thinking involves the acknowledgment of the binding power of principles, regarded as universal and objective, in accordance with which reasons have to be assessed.

As based on principles, critical thinking essentially has a normative character. On Siegel’s view, critical thinking is good thinking, separating

good from bad reasons. Critical thinking is not just a cognitive mental operation but rather thinking that meets relevant criteria. So having the ability to assess reasons is having the ability to ascertain the goodness of candidate reasons, that is, to evaluate the evidential strength of reasons to support beliefs and actions according to epistemic criteria.

Critical thinking theorists distinguish between two sorts of principles of reason assessment: general, or subject-neutral, principles and context-bound, or subject-specific, ones. There is an important debate between proponents of the ‘generalist’ view and those of the ‘specifist’ view as to whether or not reason assessment skills apply across a broad range of contexts and circumstances: to what extent are assessment criteria generalisable? I will not go into this discussion here, however, and leave the so-called ‘problem of generalisability’ aside.2

Yet one consequence of Siegel’s adoption of the generalist view is important for my further discussion. In the light of this view, his reasons conception of critical thinking is not limited to the sphere of theoretical reason but equally applies to that of practical reason.3 So, although Siegel’s conception applies first and foremost to the epistemological domain, it also pertains to the ethical domain. Given Siegel’s generalist view and the perspective of rationalist ethics, the assessment of moral reasons in the light of ethical criteria is entirely analogous to that of non-moral reasons according to epistemic criteria. Like epistemic criteria, ethical ones also warrant the impartiality and universality of reasons, exposing the arbitrariness of self-interested reasons.

**The critical spirit component**

According to Siegel, reason assessment is a necessary but not a sufficient condition for critical thinking. A critical thinker may well have the ability appropriately to assess reasons, but not systematically use it. Accordingly, a critical thinker must not only be able to evaluate the probative force of reasons; he must also be disposed to seek good reasons and to question the epistemic credentials of candidate reasons. In order to be a critical thinker, a person must habitually and actually engage in reason assessment. So, in addition to the reason assessment skill, a critical thinker must have a certain complex of dispositions, attitudes, habits of mind and character traits—what Siegel calls a ‘critical spirit’.4

Being a critical thinker involves valuing reasons and caring about their evidential power; it comprises a willingness and desire objectively to evaluate reasons and their evidence according to impartial and non-arbitrary standards. The critical spirit gives life to reasons. That is to say, a critical thinker does not idly assess reasons; he is also moved by them due to his critical spirit. To be appropriately moved by reasons is to be motivated and guided by good reasons in belief-formation and action. On account of the critical spirit, reasons have normative impact on believing and acting. So, on Siegel’s view, having the reason assessment ability and having the critical spirit disposition are individually necessary and jointly sufficient conditions for being a critical thinker.
CRITICAL THINKING AS AN EDUCATIONAL IDEAL

On Siegel’s reasons conception, critical thinking is a highly significant educational notion (Siegel, 1988, pp. 42–47). Critical thinking is relevant to, and has ramifications for, the ethics as well as the epistemology of education, and the content as well as the manner of education.

Central aspects of critical thinking—rational virtues such as the skill (and disposition) to judge impartially, in disregard of one’s own self-interest—are indispensable to moral education. The critical thinking ability to assess the warranting strength of reasons and the cogency of arguments is manifestly beneficial in science education. Critical thinking also falls under the knowing-how as well the knowing-that aspects of educational content. Like reading, spelling and computational skills, critical thinking skill is part of the know-how of the student. And students (learn to) reflectively know that there are criteria of reason assessment that apply either generally or specifically in domains of inquiry. Moreover, and most notably, teaching in the critical manner—the manner that models and reinforces the critical spirit—is the teacher’s principal obligation. Good teaching just is teaching so as to develop in students the reason assessment skills and the critical attitudes delineated by the two-component theory of critical thinking.

Along these lines, critical thinking enjoys an impressive generality and wide-ranging relevance in educational contexts. Siegel suggests, then, that we should accordingly take critical thinking as an educational ideal. As an ideal, critical thinking not only structures our educational enterprise but also sets the goals of our educational efforts. It gives the answer to two central normative questions in the philosophy of education: ‘What is education for?’ and ‘How should we educate?’

With regard to the means of education, critical thinking operates as a regulative ideal. It defines regulative standards of excellence that can be used to evaluate, and to adjudicate between, rival educational methods and theories, conflicting teaching methods and theories, alternative curricula, and divergent institutional policies and practices.

Regarding the end of education, critical thinking functions as an identity-constitutive ideal. On the two-component theory, the development of critical thinking not only involves the fostering of certain reasoning abilities but also, and importantly, of a motivational complex that makes up a certain character. The character traits to be fostered are, of course, those that are in agreement with the critical spirit component. Since these character traits constitute a certain kind of person, the fostering of critical thinking is committed to nothing less than the development of a human being with a particular identity. The fundamental aim of critical thinking education is, therefore, not only to educate youngsters to think critically but also, and more comprehensively, to be critical thinkers. To take critical thinking as a constitutive ideal is to opt for a pervasive educational programme of character-formation and identity-constitution.

Since critical thinking specifies the means as well as the end of education and teaching, it represents an all-encompassing educational
ideal. On Siegel’s interpretation, it even represents the educational ideal:

[R]ationality, and . . . its ‘educational cognate,’ critical thinking, constitute a fundamental educational ideal . . . [T]he fostering of rationality and critical thinking is the central aim, and the overriding ideal, of education (Siegel, 1997, pp. 1–2).

CRITICAL THINKING AND RATIONAL AUTONOMY IDENTIFIED

With a sketch of Siegel’s reasons conception of critical thinking and its educational importance in place, I turn to the role of autonomy in this context. According to Siegel, there is a sense in which critical thinking and autonomy constitute the same educational ideal. In this sense, critical thinking is, correspondingly, not only coextensive with rationality but also with autonomy:

If we accept critical thinking as a fundamental educational ideal, we explicitly acknowledge the desirability of the attainment by students of self-sufficiency and autonomy . . . The critical thinker must be autonomous—that is, free to act and judge independently of external constraint, on the basis of her own reasoned appraisal of the matter at hand (Siegel, 1988, p. 54).

Here Siegel is in line with the major trust of our tradition (see Popper, 1949). In our Western rationalistic intellectual tradition rationality has always been conceptually connected with freedom and autonomy. The ancient ideal of a life guided by wisdom is an ideal of self-control. Man is a rational animal and in exercising his intellectual powers he realises his own essence, that is, his autonomy and authenticity. The good life is the examined life. Similarly, the enlightenment ideal of liberty is to live according to one’s rational knowledge, in contrast with living according to inarticulate custom and habit, suffocating ideology or religious taboo. In the same vein, critical thinking is independent thinking, free from external pressures. Yet critical thinking is not ‘wild’ or ‘criterionless’ thinking since it complies with the rational principles of the Western tradition. It offers the autonomy of rational belief as against the heteronomy of dogmatic belief and the anomie of wanton belief.5

Given the conceptual connection between rationality and autonomy, the educational ideal of critical thinking becomes indistinguishable from that of rational autonomy. I call this conceptual intertwining of critical thinking and rational autonomy the critically rational conception of autonomy. Although Siegel himself does not elaborate on this conception, it can be made explicit by drawing on the received analysis of such a conception of autonomy by Robert Dearden and Richard Peters under the inspiration of Stanley Benn.

On this classical analysis, an autonomous person is one who makes his own choices and subjects them to rational assessment and criticism.
According to Peters, this conception harbours three essential dimensions: (i) man as a chooser, (ii) authenticity and (iii) rational reflection. Being a chooser in a situation of practical reason implies having options open to one and not being restricted by physical or mental impediments. Although being a mentally healthy chooser is a standard that might be expected of anyone, it is not an educational ideal. ‘In education,’ Peters highlights, ‘we are usually concerned with more than just preserving the capacity for choice; we are also concerned with the ideal of personal autonomy, which is a development of some of the potentialities inherent in the notion of man as a chooser’ (Peters, 1973, p. 17). ‘To be a chooser is not enough for autonomy,’ Benn remarks, ‘for a competent chooser may still be a slave to convention, choosing by standards he has accepted quite uncritically from his milieu’ (Benn, 1976, p. 123). For that reason, autonomy requires the fulfilment of two other conditions. In order to be autonomous, a person must, in addition to being a chooser, not only adopt a code of conduct as his own but also subject it to critical reflection in light of rational principles. Autonomous choice has to be authentic as well as rationally informed. Because autonomy is here so intimately connected with rational reflection, assessment and criticism, this rationalist Dearden-Peters conception of autonomy clearly dovetails with Siegel’s reasons conception of critical thinking, or, given the pertinent identification, with critically rational autonomy.

For my further discussion, it will be useful to distinguish explicitly between theoretical and practical autonomy. The autonomous person combines an independent, free mind with a sovereign, free will. Although on rationalistic assumptions critical thinking can be identified with autonomy, Siegel’s reasons conception of the former is concerned primarily with the freedom of thought (judgement, belief), while Dearden’s and Peters’ rationalist conception of the latter relates predominantly to the freedom of action (choice, desire). In what follows, I shall focus not so much on theoretical autonomy as on practical autonomy. My focus is justifiable since critical thinking is allegedly an all-embracing educational ideal, covering not only the domain of theoretical reason but also that of practical reason. It is, in addition, a kind of practical autonomy that plays the main justificatory role in Siegel’s defence of critical thinking.

**KANTIAN AUTONOMY AS JUSTIFICATION FOR CRITICAL THINKING**

*The Kantian principle of respect for persons*

With regard to critical thinking as an educational ideal, autonomy also appears in another guise. As I interpret Siegel, autonomy plays a central role in his philosophical justification of the critical thinking ideal. (For reasons of economy, in what follows I shall drop the identification of critical thinking with critically rational autonomy set out in the previous section.) Siegel offers four reasons for taking critical thinking as the
overriding educational ideal: (i) respect for students as persons; (ii) self-
sufficiency and preparation for adulthood; (iii) initiation into the rational
traditions; and (iv) democratic living (Siegel, 1988, pp. 55–61). In his
view, ‘the fundamental justification for regarding critical thinking as an
educational ideal is the first, moral one.’ (Siegel, 1997, p. 4).

Before expounding this rationale, it is worth noting that Siegel’s
justification requires the endorsement of, what he calls, ‘that old-time
enlightenment metanarrative’ (Siegel, 1997, pp. 129–139). Against the
postmodern rejection of that meta-narrative, he defends old-fashioned
enlightenment epistemology and moral theory. In connection with the
third and fourth rationale for the critical thinking ideal, I have no problem
with Siegel’s modernist position. Critical thinking is undoubtedly one
of the legitimate aims of education, but only one among many others, in the
context of the Western rationalistic intellectual tradition and the liberal
political tradition of Western democracy.

Neither will I take issue with Siegel on the second rationale because the
recognition of our obligation to prepare children for the successful
management of their adult lives only offers an empirical—not a
conceptual—legitimation of the critical thinking ideal. As a matter of
empirical fact, adolescents and young adults need to stand on their own
feet to cope with the problems of adult life. I agree that the empirical self-
sufficiency needed for adult life management can be developed and
cultivated by encouraging critical thinking. Yet the fact that critical
thinking is empirically conducive to having one’s own way in important
areas of adult life—‘independence of judgment is the sine qua non of self-
sufficiency’ (Siegel, 1988, p. 58)—does not constitute a deep philosophi-
cal justification of the critical thinking ideal. So, my critical target will be
confined to the conceptually justificatory role of autonomy in relation to
critical thinking, which is at issue in the first, all-important moral rationale.

As remarked earlier, the teacher’s principal obligation is to teach
students in accordance with critical rationality. According to Siegel, this
claim can be justified by appealing to our fundamental moral obligation to
respect all persons—students included. Manifestly, ‘[t]he concept of
respect for persons [appealed to] is a Kantian one, for it was Kant who
urged that we treat other as ends and not means’ (Siegel, 1988, p. 56).
Having respect for persons means recognising their equal moral worth and
this involves, among other things, honouring their right to exercise their
independent judgement and ability to assess and criticise. Hence, the
critical thinking ideal is justified in that teaching in the critical manner—
so as to foster independent-minded students—amounts to teaching
students with respect. By teaching in the critical manner teachers fulfil
their prime moral duty to other persons. Critical thinking as an educational
ideal is thus justified on deontological grounds.

The Kantian autonomy of practical reason and the person

Although Siegel himself does not offer any further justification for the
Kantian principle of respect for persons itself, he claims that this principle

is widely accepted by contemporary moral theorists and that it can be justified (Siegel, 1988, pp. 156–157, note 23). To bring out clearly the way in which Siegel’s appeal to the principle of respect for persons as the fundamental rationale for the critical thinking ideal is ultimately based on an appeal to autonomy, I will expand on the further justification for this Kantian principle by drawing upon Peters’ elucidation of the Kantian connection between respect and autonomy (Peters, 1966, pp. 208–215).

In the context of practical reason and morality, respect for persons is, according to Kant, derivative from respect for the practical law:

> What I recognize immediately as law for me, I recognize with reverence, which means merely consciousness of the *subordination* of my will to a law . . . Reverence is properly awareness of a value which demolishes my self-love . . . All reverence for a person is properly only reverence for the law (of honesty and so on) of which that person gives us an example (Kant, 1785, p. 401, note **).

Although the practical law—the categorical imperative—is universal and objective, it comes not from ‘outside’ but from ‘inside’ the person. Its source is the person’s practical reason. The practical law is self-given by practical reason since the rational person—the rational will—is self-legislating. The *autonomy* of the practical law stems from ‘the Idea of the will of every rational being as a will which makes universal law’ (Kant, 1785, p. 431).

Kant’s concept of the practical law is inseparable from a specific concept of practical reason and a specific concept of the person. Practical reason is robust in that reason is both normatively and motivationally practical. It gives us our standard of conduct—the categorical imperative—and it motivates us to act accordingly. Practical reason not only tells us what is intrinsically good (or bad) and what we ought (or ought not) to do, it also generates in us pertinent volitions and moves us all the way to action. The person is not the empirical but the *noumenal* self, that is, the active self-determining agent with a rationally assertive point of view of his own, transcending the realm of perceptions and inclinations. As rationally autonomous agents, persons are not merely instrumental means but ends-in-themselves:

> Rational beings . . . are called *persons* because their nature already marks them out as ends in themselves—that is, as something which ought not to be used merely as a means—and consequently imposes to that extent a limit on all arbitrary treatment of them (and is an object of reverence) (Kant, 1785, p. 428).

As a result, the Kantian principle of respect for persons, as respect for the practical law exemplified, is ultimately based on the *Kantian autonomy* of practical reason and the person. Accordingly, Siegel’s justification of the critical thinking ideal on deontological grounds involves, in the final analysis, the acknowledgement of this Kantian
conception of autonomy. In the light of this conceptual connection between respect for persons and autonomous practical reason, I shall assume that Siegel eventually needs to appeal to Kantian autonomy in order rationally to justify critical thinking as an educational ideal.

In the remainder of this article, I shall argue that Siegel’s implicit appeal to the Kantian autonomy of practical reason sharply conflicts with the over-all Humean character of his own two-component theory of critical thinking. That is to say, the justificatory appeal to Kantian autonomy is alien to the Humean means-end conception of rationality that, as I shall try to show, constitutes the foundation of Siegel’s reasons conception of critical thinking. If I am right about this, then Siegel cannot rationally justify the educational ideal of critical thinking on the basis of his own premises.

Let it be clear, however, that although I am critical of some aspects of Siegel’s position, I do not side with postmodern radical scepticism about the enlightenment ideal of rationality and about the ideal of critical thinking in education. I only want to bring to the surface an internal conflict in the conceptual foundations of Siegel’s reasons conception of critical thinking.

SIEGEL’S TWO-COMPONENT THEORY AND HUMEAN MEANS-END RATIONALITY

My critical point runs as follows. The fundamental justification of the critical thinking ideal relies on the moral principle of respect for persons, which, as demonstrated above, ultimately rests on the Kantian conception of the autonomy of practical reason and the person. Yet, although the Kantian groundwork may be comprehensible in its own terms, it cannot be rendered intelligible in terms of the theory of rationality propounded by Siegel. As regards practical reason, his conception of rationality is, or comes close to, a Humean means-end conception. Since Siegel’s own theory of rationality does not incorporate the Kantian conception of robust rationality, it lacks the theoretical resources ultimately to justify the critical thinking ideal on its own basis.

My point can also be articulated thus. Because Siegel cannot provide the fundamental justification of the critical thinking ideal in terms of his own instrumental conception of rationality, he needs to appeal to a non-instrumental conception. However, this coexistence of a Humean means-end conception of rationality with a Kantian robust conception generates an internal tension, or even conflict, at the heart of the critical thinking theory of rationality. Let me put some flesh on the bare bones of my criticism.

The Kantian noumenal self

Before doing this, however, I want to clear away one issue about which I do not quarrel with Siegel. Although Siegel discards naturalised epistemology, he embraces metaphysical naturalism, rejecting all forms of super-naturalism (Siegel, 2001, pp. 584–586). As a consequence, Siegel cannot be committed to Kantian metaphysics. But while he rejects Kantian
transcendental idealism, he embraces the ethical centrality of treating others with respect (Siegel, 2001, p. 582). It might be thought, along the lines set out earlier, that accepting the Kantian principle of respect for persons ultimately involves acknowledging the Kantian autonomy of the person as a *noumenal* self, and consequently requires a commitment to Kantian idealist super-naturalism.

However, I agree with Siegel that one can be Kantian regarding moral matters without accepting Kantian metaphysics, and thus evade a friction, or even contradiction, between one’s moral principles and naturalist presuppositions. Instead of identifying the person as a noumenal self, it would be perfectly compatible with naturalism to construe the self of the rational person as functionally identical to ‘a *highest-order disposition to rationality*’ (Piper, 1985, p. 185) or ‘the desire to act in accordance with reasons’ (Velleman, 1992, p. 479). The point at issue of my criticism pertains, therefore, not to Kant’s concept of the person but to Kant’s concept of practical reason in relation to critical thinking and its educational significance.

*The Humean instrumental conception of rationality*

The theory of critical thinking depends fundamentally on the theory of rationality. *Which* conception of rationality does Siegel subscribe to in relation to practical reason? Although Siegel acknowledges that ‘a deeper conception of rationality than the means-ends conception’ is needed (Siegel, 1988, p. 131), his own two-component theory of critical thinking is, or comes close to, an instance of this Humean conception. Let me first sketch the contours of the Humean instrumental conception of rationality and then indicate how Siegel’s two-component theory instantiates it.

David Hume’s maxim that ‘reason is, and ought only to be, the slave of the passions, and can never pretend to any other office than to serve and obey them’ implies the *heteronomy* of practical reason by assigning to it a merely instrumental role at the service of the passions (desires, conative attitudes). Desires provide ends and reason’s task is to select the most efficient means to achieve those ends, that is, to satisfy those desires. On a Humean conception, reason is neither normatively nor motivationally practical.

Since reason’s proper domain is that of facts and the truth, not that of values and the good, reason cannot by itself tell us what is intrinsically good (or bad) and what we ought (or ought not) to do. Desires tell us what is valuable, and, in general, connative attitudes constitute normative judgements. An important corollary of reason’s normative impotence is that the notions of rationality and irrationality are not directly applicable to the ends set by desires. Passions can neither be true nor false, and therefore neither reasonable nor unreasonable.

Because reason’s proper role is to establish facts by inference or observation, reason alone can never move us and influence our conduct. Motivation to act always requires passions. At the most, reason can excite a desire, and, given a desire, it can guide action towards the satisfaction of that desire. So reason has no direct impact on motivation but only an...
indirect one by arousing or guiding passions. On this instrumental conception, reason lacks robustly normative as well as robustly motivating power. The passions are the sole source of normative and motivational reasons.

The Humean character of Siegel’s two-component theory

Siegel’s two-component theory of critical thinking instantiates, or nearly exemplifies, a Humean instrumental conception of rationality. Let me indicate, first in general terms, why Siegel’s theory is, at least in spirit, Humean and then, more specifically, point out the problems, recognised by Siegel himself, that the instrumental conception poses for his critical thinking theory.

As explained, the reasons conception of critical thinking comprises two dimensions: the reasons assessment component and the critical spirit component. Being appropriately moved by reasons requires reasons to have not only evidential force but also normative impact. This separation of the logico-epistemic dimension and the motivational dimension of reasons mirrors the Humean distinction between the domain of ‘reason’ and the domain of ‘the passions’. Siegel’s two-component structure of mental faculties repeats Hume’s bipartite structure. The mere ability to assess reasons does not by itself imply the disposition actually to engage in reason assessment. So being appropriately moved by reasons requires more than ‘reason’ alone: it also demands the critical spirit of ‘the passions’.

The reason assessment component pertains exclusively to the epistemology of reasons, involving criteria with regard to, for example, assessing the goodness of candidate reasons, detecting valid arguments, avoiding fallacies and making proper deductive and inductive inferences. Yet the reason assessment component by itself cannot motivate a person actually to believe and act in accord with his adequate reasons. The evidential force of reasons does not imply eo ipso their normative impact on belief-formation and motivation. The critical spirit component has to come to the rescue in order actually to guide and motivate the critical thinker by good reasons in his cognition and action. So the normative impact of reasons on believing and acting necessitates a critical spirit, that is, a certain complex of dispositions, attitudes, habits of mind and character traits. The effective operation of ‘reason’ on thought and action requires the cooperation of ‘the passions’:

Most fundamentally, the critical attitude involves a deep commitment to and respect for reasons—indeed . . . a love of reason . . . the reasonable person has integrated with her reason assessment skills a host of rational passions, which together constitute and instantiate the critical attitude (Siegel, 1988, pp. 39–40).

Particularly applied to practical reason, the reason assessment component of critical thinking—‘reason alone’—is neither normatively nor motiva-
tionally practical. From the foregoing, the motivational powerlessness of the mere ability to assess practical reasons follows straight away. Because reason’s proper role in critical thinking is to assess reasons according to logico-epistemic standards (universality, impartiality), reason alone cannot influence our motivation and conduct. Motivation to act according to, for example, moral reasons always requires the cooperation of the critical spirit. One must care about moral reasons in order to be motivated by them.

As construed in Siegel’s critical thinking theory, reason is not only motivationally powerless but also normatively powerless. Reason itself does not constitute practical reasons; it only assesses them once they are given. Moreover, reason itself does not constitute specifically practical criteria of reason assessment; it only complies with such given criteria. Of course, reason can formally evaluate the epistemic soundness of, for example, moral reasons and the logical validity of moral arguments; yet it cannot be at the origin of the content of those reasons and those arguments’ premises. That is to say, the reason component of critical thinking does not tell us what is intrinsically good (or bad) and what we ought (or ought not) to do.

Problems with the means-end conception of rationality

In the light of the structural similarity between Siegel’s two-component theory of critical thinking and Hume’s bipartite conception of practical reason, and in view of the Humean predicament of the reason assessment component as normatively and motivationally impotent, I conjecture that the conception of rationality underlying Siegel’s theory of critical thinking is, or comes close to, a Humean means-end conception of rationality. Although Siegel himself never explicitly aligns the critical thinking conception of rationality with the instrumental conception, he eventually evaluates this prevalent means-end conception in his discussion of the relation between the theory of critical thinking and the general philosophical theory of rationality (Siegel, 1988, pp. 128–131). The reason why Siegel does not himself explicitly identify critical thinking with means-end rationality is, to my mind, that he acknowledges several difficulties with the Humean instrumental conception of rationality that render it problematic for the theory of critical thinking. Yet, despite Siegel’s unwillingness to identify critical thinking with means-end rationality, his two-component theory is, as demonstrated above, an instance of the Humean instrumental conception. As a consequence, if there is some truth in my interpretation, the difficulties Siegel points out regarding the means-end conception of rationality are exactly those that plague his own theory of critical thinking. In reviewing these problems, I focus, as before, on the relation of critical thinking to the situation of practical reason.

Practical reason as instrumental reason has neither normative nor motivational power. Means-end rationality—rationality as efficiency, that is, choosing efficient means for given ends—provides only instrumental or
prudential reasons. One weakness of this conception of rationality as concerns critical thinking is that it conflicts with the scope of critical thinking, which is allegedly much wider than the efficiency of reasons. Indeed, the ambition of critical thinking is to cover all legitimate reasons: ‘it is clear that all bona fide reasons are relevant to the critical appraisal of belief and action, yet the means-end conception threatens to rule out some sorts of reasons in favour of prudential or efficiency considerations’ (Siegel, 1988, p. 131). Means-end rationality cannot deal with non-prudential or non-instrumental reasons.

However, on my instrumental interpretation, that is exactly what Siegel’s reasons conception of critical thinking does: it rules out all but instrumental reasons. Within the domain of practical reason, the reason assessment component is limited to the evaluation of given practical reasons according to logico-epistemic standards of efficiency. It is unable to constitute practical reasons and specifically practical criteria (for example, moral ones), or even to appreciate non-prudential reasons and non-instrumental criteria, since critical thinking rationality is normatively powerless. Connectedly, instrumental reason is unable to evaluate rationally the ends themselves: ‘The means-ends account takes ends as given, and judges rationality solely in terms of the efficiency of means in achieving ends. But we would do well to preserve the possibility of judging the rationality of our ends themselves’ (Siegel, 1988, p. 130). The normative impotence of the reason assessment component implies, however, that the notions of reasonableness and unreasonableness are not applicable to the ends themselves.

Another weakness of the means-end conception of rationality that concerns critical thinking is that it clashes with the overall character of the reasons conception of critical thinking, which also purportedly covers the motivational dimension of practical reason. One of the weak points of rationality as efficiency is certainly ‘its inability to account for the values and character traits [the critical spirit] associated with the critical thinker, for those features of critical thinking cannot be accounted for in terms of the efficient orientation of means to ends’ (Siegel, 1988, p. 131). Means-end rationality has no motivational impact.

Yet, on my instrumental interpretation, that is exactly what Siegel’s reason assessment component is by itself unable to do: it cannot account for the motivational component. Siegel needs the separate, second, critical spirit component, since critical thinking rationality alone is motivationally powerless. Additionally, the critical spirit not only motivates the critical thinker but also constitutes (some of) his non-instrumental ends: ‘Rather, they [that is, the values and character traits associated with the critical thinker] specify or constitute ends, which enjoy rational justification but on bases other than that of the efficient achievement of (still other) ends’ (Siegel, 1988, p. 131). Since Siegel remains silent about which kind of rational justification he has in mind, I surmise that the critical spirit in his two-component theory of critical thinking plays by and large the same functional role as ‘the passions’ in the Humean conception of practical reason.
Siegel agrees that the means-end conception of rationality is inadequate for the theory of critical thinking. If I am right about my instrumental interpretation, Siegel’s two-component theory itself, as based upon such a Humean conception, is likewise inadequate. So, if we need to ‘take into account the panoply of legitimate reasons . . . and also allow for the possibility of the rational evaluation of ends’ (Siegel, 1988, p. 131), then ‘we need a better [deeper] account of rationality than the means-ends account’ (Siegel, 1988, p. 131). And, even more radically, if am right, we similarly need a better account of critical thinking itself.

The needed, deeper conception of rationality is perhaps the robust one as exemplified by Kant’s conception of autonomous practical reason. As said, according to the Kantian account, autonomous reason is normatively as well as motivationally practical. A unitary reasons conception of critical thinking that forged an intrinsic connection between the reason assessment component and the critical spirit component might then be founded on this Kantian robust conception of rationality. Kantian practical reason autonomously motivates the critical thinker to think and act in accord with normative reasons, that is, in accordance with a panoply of rational ends.

Given that Siegel himself does not hint at the kind of deeper conception of rationality that is needed, however, he has in mind perhaps something less robust—something between the thin theory of means-end rationality and the full-blown Kantian theory of robust rationality in which rationality and goodness are identified (along with the identification between rationality and truth). Be that as it may, however, pursuing this line of inquiry is far beyond the scope of the present paper.

CONCLUSION

To conclude, let me again press the point of my criticism. Although Siegel’s two-component theory of critical thinking, as instantiating a Humean conception of instrumental rationality, does not incorporate the Kantian conception of robust rationality, it implicitly appeals to the Kantian autonomy of practical reason for the ultimate justification of critical thinking as an educational ideal. As shown, the fundamental justification of this ideal requires the moral principle of respect for persons, the intelligibility of which rests on the Kantian conception of the autonomy of practical reason. Consequently, since Siegel’s own theory lacks the necessary theoretical Kantian groundwork ultimately to justify the critical thinking ideal, its justificatory claim remains unfounded.

To put this otherwise, because Siegel cannot give the fundamental justification of the critical thinking ideal in terms of his own instrumental conception of rationality, he appeals to a Kantian robust conception that is in important respects alien to the general tenor of his two-component theory of critical thinking. The implicit recourse to Kantian robust
autonomy conflicts, or at least creates a tension with, the Humean mean-
end conception of critical thinking rationality.10

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**NOTES**

1. Robert Ennis, Richard Paul and John McPeck, each in their own way, conceptualise critical
   thinking differently. For Siegel’s discussion of these three alternative conceptions, see Siegel,
   1988, pp. 5–31. Matthew Lipman, Barbara J. Thayer-Bacon and Sharon Bailin offer still other
   conceptualisations. I consider Siegel’s reasons conception the most philosophically deep and
   interesting one.

2. For a concise treatment of this debate, see Bailin and Siegel, 2003, pp. 183–186. Siegel also
   requires from the critical thinker a grasp of the ‘conservative’ veritistic epistemology underlying
   critical thinking, which combines a non-relativist, absolutist conception of truth with a fallibilist
   conception of epistemic justification. I also leave aside here this deep philosophical issue, but see
   Cuypers, 2003, for a congenial treatment of Siegel’s epistemological conservatism.

3. As regards theoretical reason, Siegel defends an epistemological theory of rationality (which is
   fallibilist) (see Siegel, 1997, especially pp. 17–23 and 101–110). Good reasons for beliefs are
   based on sufficient evidence. Such an evidence-based theory occupies a middle-position between
   a logical theory of rationality as (mere) consistency and a metaphysical theory of rationality as
   (robust) truth-entailing. The formal consistency criterion for beliefs is not sufficient, whereas the
   robust truth-entailing criterion for beliefs is not necessary for the reasons conception of critical
   thinking. In John Elster’s terminology, Siegel’s theory of theoretical reason is broad (or
   substantive): ‘I suggest that between the thin theory of the rational and the full theory of the true
   [and the good] there is room and need for a broad theory of the rational. To say that truth is
   necessary for rational beliefs clearly is to require too much; to say that consistency is sufficient,
   to demand too little’ (Elster, 1983, p. 15).

4. For a list of critical spirit dispositions and commitments, see Bailin et al. (1999), pp. 294–295.

5. Although critical thinking is incompatible with undisciplined thinking, it is compatible with
   creative thinking. For the thesis that the dichotomy between critical thinking and creative
   thinking is ill-founded, see Bailin and Siegel, 2003, pp. 186–187.

6. As to the normative dimension, ‘robust’ implies that practical reason is not only
   epistemologically practical but also constitutively practical. Besides delivering knowledge of
   normative truths, practical reason is capable of creating values and laying down standards
   of conduct. As to the motivational dimension, ‘robust’ implies that practical reason is capable of
   moving the will and thus of motivating action by its own power, independently of desire and
   inclination.

7. For a generally accepted interpretation of Hume’s conception of practical reason as instrumental,
   reason in connection to different conceptions of autonomy, also see Audi, 1991. The classic
   Hume quotation cited here is from *A Treatise of Human Nature*, II, iii, 3.

8. Siegel is aware of this difficulty as regards the motivational power of practical reason. He tries to
   solve it by blurring the distinction between cognition and affect (Siegel, 1988, p. 40), or by
   introducing a mixed or hybrid kind of reasons, namely ‘felt reasons’ (Siegel, 1997, pp. 47–52).
   These moves just illustrate and give further evidence for my instrumental interpretation: they are
   symptoms of the inadequacy of Siegel’s two-component theory, which, at least in spirit, is
   Humean. On the Humean conception there only exists an extrinsic connection between practical
   reason and motivation because reason needs the external power of emotion and feeling in order
   to be motivationally practical. Reason alone has no internal motivational power. Since pure
   instrumental reason is motivationally powerless, Siegel tries to remedy this predicament by
infusing practical reason with affect or feeling. Yet Siegel’s move towards such an impure practical reason, by appealing to affective reason or felt reasons, does nothing to fortify the internal motivational power of the pure reason assessment component of his two-component theory.

9. An alternative candidate for the needed, deeper conception of rationality would be Aristotle’s conception of teleological practical reason. A unitary reasons conception of critical thinking with an intrinsic link between reason and motivation could then perhaps be developed against the background of an Aristotelian virtue-epistemology.

10. I thank Jan Bransen and the participants at the Gregynog Philosophy of Education Society Annual Conference, 2003, for helpful comments and suggestions on an earlier version of this article.

REFERENCES