The Common Core State Standards for Reading and Mathematics appear to be simultaneously unstoppable trains and under siege, making strange bedfellows of both supporters and opponents. Two issues cloud the debate about their validity, value and efficacy: (1) The idea of standards has been conflated with standardization; (2) Standards have become inextricably linked to high-stakes assessments. This has superseded a deeper meaning of assessment- the daily cycle of diagnosis and feedback to students that marks the practice of every effective teacher.

However, there is something deeper contributing the cloudiness. I am reminded of a classic Peanuts cartoon in which Lucy laments upon missing a fly ball, "Sorry I missed that easy fly ball, manager. I thought I had it, but suddenly I remembered all the others I've missed. The past got in my eyes!"

In education, the cloudiness of past associations distorts our vision and constrains our ability to make progress. Our unexplored views on the role of autonomy and control in improvement make it challenging to sort through the issues surrounding the current fierce debates about education reform.

Supporters of linking the Common Core State Standards with high-stakes assessments argue: *The history of comparatively low standing of U.S. schools on international assessments and intractable achievements gaps demonstrate that teachers cannot be counted upon to improve student outcomes. Rigorous national standards will yield consistency in expectations, instructional materials and assessments. Consequential assessments are necessary for improvement because some people will only respond to rewards and sanctions. It is only natural.*

Opponents counter: Standards and consequential assessments are unnecessary and a thinly veiled attempt to undermine teachers' professional independence and due process rights. If we removed the sword hanging over teachers, they would set clear high expectations for all students through their own drive and ingenuity. In fact, consistency is harmful because it thwarts creativity. It is only natural. People respond to autonomy. Other opponents, while no friends of teacher autonomy, reflexively oppose the standards as an overreaching federal usurpation of the authority of states rights.

Improvement in education is certainly no easy fly ball. Much of the debate is more nuanced and complex than these caricatured positions, addressing serious issues such as to the extent to which schools can independently mediate the educational effects of race and class differences and the influence of private foundation and for-profit entities on education policy. However, at least as represented in the press, the arguments represented above are too typical. The past that is getting in our eyes is our historical lens, clouded by two seemingly contradictory ideas. One stresses autonomy and the other control.

The foundation of currently dominant education reform is the belief that the entrepreneurialism that drives innovation and profit in the business world is directly applicable to the public sector and that regulation is anathema to creativity. This autonomy principle is evident in efforts to expand the number of charter schools that are free of constraint and in the drive to open public schools to private sector intervention. The control idea is that unless the remaining public schools (presumably not run by those imbued with entrepreneurial skill and drive) are held

accountable for strict guidelines about learning goals (standards) and governmentally imposed operational regulation, they will not change or improve. This is evident in the insistence on inclusion of student assessments results in personnel decisions in the guidelines for Race-to-the-Top and School Improvement Grant funds. Support for programs such as Teach for America as well as the emphasis on hiring and firing, euphemistically called "human capital management," reflect a faith in inherent smartness and drive and a related devaluing of learned instructional skills. One interpretation of this apparent autonomy and control contradiction is that the supporters of these reforms believe that really smart motivated people like them will do the right thing and should be left alone, while everyone else needs strong guidance and either penalties or financial incentives. In my view, these ideas are hardly new or bold. Rather, they are rooted in long standing beliefs, practices and policies for which many politically conservative business leaders have long advocated across a range of policy areas. What is new is a far more vigorous and coordinated effort to apply these ideas in public education with bipartisan embrace.

Ironically, the critique of standards as unwarranted, creativity-stifling impositions is grounded in many of the same autonomy assumptions about the power of unencumbered individuals to drive innovation and improvement. For example, many supporters and critics appear to share the idea that regulation stifles creativity. What separates the two perspectives is a different notion of size and characteristics of the group that can be trusted with autonomy. For supporters of standards, high-stakes assessments, charter schools, and privatization, the group to be counted upon is small: the really smart entrepreneurs. For some opponents, the number is large: virtually everyone.

With pressure from Tea Party members, the Republican National Committee has adopted a resolution opposing the Common Core as "an inappropriate overreach to standardize and control the education of our children so they will conform to a preconceived 'normal'". Similarly, I have heard critics of market-based reforms criticize the Common Core State Standards as anti-democratic impositions on local autonomy of schools. I sympathize with much of the criticism of the unproven use of standards-driven assessments as compliance bludgeons. There is no evidence that standards linked with high-stakes assessment can be a primary driver of reform. However, I am uncomfortable cloaking my disagreement under a banner of local control, which was used historically to oppose civil rights. Folks with starkly different values and politics all seem comfortable crying, "They can't tell me what to do," as a general principle. Understandably, many educators hear "standards" and think "high-stakes assessments." In fact, standards are often written as assessment performance specifications, risking clarity about learning goals with their measurement. However, conflating the misuse of frequently flawed student assessments with the very idea of standards clouds more that it illuminates.

As with many political struggles, the conflict over the purpose and content of standards and assessments is being resolved by the ideas of those who have money and access to power. Unfortunately, a more productive resolution is constrained by a polarized autonomy v. control framework, which is mediated by differing values and beliefs about who can be trusted. An alternate and more useful framing would be to recognize the social, political and psychological value of autonomy, but within a value system that prioritizes equity and mutual responsibility.

The following differentiating questions might provide some clarity.

1) Is it reasonable and worthwhile in our democracy to arrive at some common agreements about what we value in education?

This is a difficult question to answer in a diverse nation without consensus on the purposes of education. The autonomy/control framework leaves us with three equally inadequate solutions: letting the marketplace make profit-driven educational content decisions, letting everyone decide on their own to avoid conflict, or impose arbitrary control. However, an alternative framework-mutual responsibility- suggests that debate about these questions is worth the effort. For example, the writers of the Framework for K-12 Science Education, which has been turned into the Next Generation Science Standards (NGSS) takes a stand on teaching politically controversial issues such as evolution and climate change. This stand represents a strong scientific consensus. If as a nation we value evidence based decision-making, then both the ideas and practices through which scientific consensus developed are reasonable and supportable learning expectations. There is plenty of room for honest disagreement about what should and should not be included, but this is a separate question from whether standards are a good idea at all. In fact, this debate could be healthy, provided that it is inclusive and transparent.

2) If as a society we can reach consensus about what we value most for education, at what level of detail should key ideas about what students should understand and be able to do be represented? Are we leaving needed space for experimentation, for iterative improvement, and the grade sequence of the standards? Or conversely, in our frenzied rush to measure, are we prematurely pouring the standards concrete?

Once again, the autonomy and control dichotomy provides an insufficient basis for decisionmaking. Alternatively, scientific practice, a socially mediated enterprise, may offer a solution. In science, there is a significant difference between hypothesis and theory. The former is decidedly tentative and subject to investigation, verification of claims based on supportable interpretation of evidence, public argumentation and subsequent revision. A theory, on the other hand, is a far more certain broad explanation of how the natural world works, which has (so far) not been disproven based on all available evidence. We need to make a similar distinction in standards. How and what students should learn is at times more complex, subject to value judgments and even more uncertainly than investigations about how the natural world works. Therefore, we should be careful about the boundaries around what is required and what is subject to experimentation. Returning to the evolution example, there is no credible evidence to challenge the theory of evolution. Therefore, requiring an understanding of evolution as a part of science learning makes sense. On the other hand, there is plenty of space for disagreement about the most effective order of some topics in science, or the relative percentages of literature and informational readings in instructional materials. Therefore, explicit mandates in such areas of uncertainty are a mistake.

3) Who should have a seat at the standard-setting table?

This is another challenging question to answer, since any consensus agreement about standards might privilege some perspectives, values and interests over others. In my view, expertise

matters. Therefore, practitioners, disciplinary experts and educational researchers all have a strong case for a seat at the table.

But, who else should set the standards table?

The boundaries get blurry, but if publishers of instructional materials and assessments with a clear profit motive for one outcome over another have an influential role, then at the very least the results are subject to a perception of bias. So, they should only get to sit at the table once it has been set and the choices on the menu have been determined.

We do not have consensus in the United States regarding balance across the personal, citizen and vocational purposes for education. Because they are all important and each purpose has implications for what is included and excluded from standards each perspective should be well represented. However, since we have scant evidence to defend any particular parsing, there should be plenty of room for local decision-making.

From an autonomy and mutual responsibility perspective, the bar for standardization should be high. Nonetheless, without discipline-specific agreements about learning goals and learning progressions it is impossible to develop a body of professional knowledge for teaching. Equity and mutual responsibility demand such knowledge. Interestingly, supporters and critics of current reforms both claim to value teaching as a critical element of student success. Supporters of programs such Teach for America appear to believe that quick training of people who attend highly competitive colleges and/or who have content knowledge is sufficient to build an effective teaching force. Many opponents make the case that this devalues teaching. Yet, they often resist the standards specification that could support building a repertoire of professional knowledge of practice.

4) If developed in transparent and inclusive fashion with important caveats about boundaries, what is the optimal role for standards?

There is no evidence from anywhere in the world that standards used to frame high-stakes assessments can be the central force for improvement. Alternatively, if conceived as broad values agreements about goals, standards might be a productive starting point for collaborative inquiry, innovation and evidence gathering... and ultimately play a key role in advancing student learning. In some fashion, the primacy of evidence in decision-making is an element of both of the Common Core State Standards and in the Next Generations Science Standards. At the very least, it is incongruous to use standards in ways that clearly have scant evidentiary basis.

It may be that too many advocates and opponents of standards and assessments as education reform tools are suffering from the same distortion of ideas refracted through our historic *don't tread on me* mental prism. I do not expect to persuade those who advocate policies in order to cash in or whose real intention is to end public education. They must be defeated by concerted social action. However, for the vast majority who are simply concerned about the success and well being of children, I suggest that we need to get past our individualist-grounded past. Rather than retreating into claims of the superiority of local autonomy, let's embrace the potential for a collective agreement that balances autonomy, equity and mutual responsibility and be clear about

where we have knowledge that is solid and where there is room for disagreement and experimentation.

Arthur H. Camins is the Director of the Center for Innovation in Engineering and Science Education at the Stevens Institute of Technology in Hoboken, NJ. His other writing can be accessed at www.arthurcamins.com.