



Published on *Carnegie Foundation for the Advancement of Teaching*  
(<http://www.carnegiefoundation.org>)

[Home](#) > Strengthening the Foundations of Students' Excellence, Integrity and Social Contribution

---

# Strengthening the Foundations of Students' Excellence, Integrity and Social Contribution

Anne Colby and William M. Sullivan

*Rather than treat analytical thinking, along with mastery of substantive content, as sufficient goals for higher education, the authors remind us that colleges should aim to teach students how to use knowledge and criticism not only as ends in themselves, but as means toward responsible engagement with the life of their times.*

---

College education is a highly formative experience. It proves eventful and life-shaping for students of any age. College provides a uniquely powerful moment in which students rethink their lives, expand their intellectual and cultural horizons, and focus on future goals, often in new ways. Yet, we suspect that when they reflect on their time in higher education, many graduates feel a gnawing sense that something important was missing, that the overall educational experience could have been more helpful in enabling them to come to grips with their lives.

In their catalogues and advertising, universities and colleges frequently speak of preparing their graduates to live discerning and responsible lives. This is especially true of institutions that lay claim to a heritage of liberal education. But few institutions of higher learning devote significant curricular attention to questions of purpose, vocation or personal meaning. Why is this so? We believe that this neglect of direction, meaning and other aspects of personal responsibility as serious educational goals is the unintended consequence of too narrow a pursuit of higher education's most cherished value: analytical thinking.

Analytical thinking involves making sense of particular events in terms of general concepts and then manipulating those concepts according to general rules or principles. Analytical thinking involves framing the particularity of actual experience in terms of categories at a higher level of abstraction. This is "rigorous" thinking that is central to modern societies. It enables scientific explanation and theory-building, and their powerful application in

technological innovation. These skills play an important part in making democratic as well as academic or intellectual life possible. Analytical thinking is a necessary skill for modern living, and most entering students need considerable help to gain the essential intellectual skills analytical thinking entails.

Our quarrel, then, is not with analytical thinking itself but rather with the tendency in the academy to treat analytical thinking, along with mastery of substantive content, as *sufficient* goals for higher education. When this happens, the over-emphasis on analytical thinking creates an academic culture that reveres analytical rigor as the *only* important consideration, disconnecting rigorous thinking from sources of human meaning and value. This threatens to create a culture of argument that is so skeptical and detached that it can become unmoored from the human purposes that rationality and rigor are meant to serve. Analytical thinking teaches students how to argue all sides of an issue, but pursued by itself, it often leaves them with the sense that the ultimate choice of where to come down is arbitrary. One result is that humanities disciplines, in particular, come to be regarded by students as trading in mere "opinion" as opposed to rigorously demonstrated "facts"—which appear the only kind of knowledge worth having.

This is not a new problem. At the source of Western rationality, Plato already was warning about the nihilistic potential of acquiring skills of critical argument that are not well grounded by a moral compass. Plato has Socrates humorously compare such unmoored, fledgling dialecticians to young hounds who discover they can tear to bits any argument, making the weaker and worse case seem like the stronger and better one. (Many academics, perhaps, can recognize in this description more than a few young and not-so-young hounds they have encountered.)

Analytical thinking is an incomplete educational agenda in part because it disconnects rationality from purpose, and academic understanding from practical understanding or judgment. In order to prepare for decision and action in the world, students need to develop not only facility with concepts and critical analysis but also judgment about real situations in all their particularity, ambiguity, uncertainty and complexity. They need to develop practical reasoning.

Despite the challenge this near-exclusive emphasis on analytical reasoning poses, we believe that higher education can be reshaped so that it better serves the cultivation of students' sense of purpose and responsibility, even as it continues to strengthen the rigor of their thinking. Once recognized, the thinness of the way critical thinking is currently presented to students can be corrected. In fact, resources for such correction and enrichment are already present in many parts of the university, although they may not be recognized as such.

In the Carnegie Foundation's studies of undergraduate preparation in fields such as engineering, nursing and business, we have discovered that when professions confront the problem of shaping students to be competent and responsible future practitioners of their fields, they inevitably have to invent ways of teaching practical reasoning to guide and direct analytical capacities. Some even find ways to connect these teaching practices with concerns about meaning and purpose in the arts and sciences disciplines, thus bridging the notorious divide between "pure" and "applied" learning.

Plato might be surprised by this finding, but we suspect he would also be pleased. Like Moliere's character who suddenly discovers that he has been speaking prose all his life, a more focused attention to how and where practical reasoning is being taught may bring today's academy to rediscover in some of its peripheries ways to bring essential but too often neglected purposes of higher education back to the center of attention.

### Perspectives

---

**Source URL:** <http://www.carnegiefoundation.org/perspectives/strengthening-foundations-students-excellence-integrity-and-social-contribution>