

Three-Level Understanding

Recovering Self-Awareness in the Art of Critical Thinking

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Abstract

The shifting emphasis in higher education toward STEM disciplines and vocational training may diminish opportunity for students to develop self-awareness as an integral dimension of critical thinking. In addition, contemporary texts on critical thinking accord little emphasis to the role of self-awareness, placing it, at best, on a par with inductive and deductive reasoning. By contrast, this article seeks to illustrate the central role self-awareness plays in reading texts with depth and precision. Based on our observation of common student reading errors made in both history and psychology classrooms, we have developed a simple, easily applied, and effective method called “three-level understanding” that we use to correct these errors by training students to read and think with critical awareness. This article explains this principle of three-level understanding and demonstrates its application through use of “circle diagrams.” In addition, we demonstrate that this same method can be used to facilitate effective and in-depth classroom discussion. We argue that the cultivation of self-awareness through the teaching of three-level understanding not only benefits students academically, but also provides them with tools needed to relate effectively with themselves, others, and the larger, complicated, 21st-century world.

Introduction

“Know thyself.”

—Delphic Oracle

Education used to signify the cultivation of the individual. The foremost role of education was to help students know themselves, including what they value, how they make meaning from their experience, and who they are as learners. It was within this context that students would determine what kind of career path they might wish to pursue. Education in today’s economically- and technologically-centered society, however, is becoming increasingly commodified and reduced to vocational training, with ever-diminishing regard for the arts and the reflective life (Attick & Boyles, 2016; Bauerlein, 2014; Giberson & Giberson, 2009; Wong, 2016). This tendency is reflected vividly in the ubiquitous promotion of STEM (science/technology/engineering/mathematics) education, as though that were all that mattered (Zakaria, 2015, 2016). While these disciplines are surely important to the functioning of society, they alone are inadequate for developing and sustaining a healthy, educated citizenry.

Let’s consider the image evoked by this very acronym, STEM—namely, an isolated flower stem with no mention of a root system below or a flower above. Can a rose stem, for example, by itself grow to produce a beautiful rose? Obviously not. Likewise, when we deny students the rich soil required for them to grow, do we risk producing hollow reeds rather than beautiful roses? We maintain that students need to be rooted in the normative values of human existence and nourished by the development of their inherent yet inchoate capacities. From this perspective, STEM education is an important structural support, but is neither the root nor the fruition of the education process.

How, then, can we as educators provide students the necessary foundation and nourishment to grow? Teaching students critical thinking skills is commonly believed to be the key in higher education. In fact, “critical thinking” seems to have become a catchphrase as ubiquitous as “STEM.” Nevertheless, as professors teaching respectively history (in a small liberal arts college) and psychology (in a large state university), we see among our own students that current critical thinking pedagogy has not been particularly effective. These approaches place significant emphasis on the mechanics of thinking by using principles of induction and deduction (e.g., Halpern, 2013), which students find abstract, dry, and lifeless unless related to their own life experience. Some treatments of critical thinking include the importance of self-reflection (e.g., Paul & Elder, 2013), but situate it as but one among a number of tools that students should develop without providing adequate instruction on how

to do so. Consequently, although we agree that teaching the capacity to think critically is foundational to student development, it seems to us that current approaches lack adequate efficacy.

In this article, we offer an alternative approach we have developed for the teaching of critical thinking that grounds the process in self-awareness. We call our method “three-level understanding” and illustrate it with a small set of “circle diagrams” (Figures 1-4). We contend that self-awareness is the root within which we can more effectively and wisely use the tools of deduction and induction traditionally taught as the basis for critical thinking, and it is also the fruit—that is, the bloom that develops and strengthens through that process. In the presentation of our method, we will focus on the domain of the reading of texts, and later we will demonstrate how these same principles can be used in helping students develop their skills at classroom discussion. We maintain that by training students to bring self-awareness to the art of critical thinking, we not only teach them an academic skill, but also provide them tools foundational to how they relate to themselves, others, and the larger, complicated, twenty-first-century world.

Common Student Errors in the Reading of Texts

We have noticed that across our different disciplines students make similar kinds of errors in the reading of texts. We have grouped these student errors in three broad categories: 1) noncritical acceptance, 2) hypercritical rejection, and 3) utter confusion. These errors likely arise from both systemic and personality factors.

We will describe each category and provide typical examples from both of our classrooms.

(1) *Noncritical acceptance.* The first category is noncritical acceptance, wherein a student accepts an author’s ideas noncritically. This no-doubt ageless tendency has likely been exacerbated in a secondary-school environment oriented toward “teaching for the test.” At the systemic level, it conveys that students have been trained to submit to authority.

Examples:

History classroom: In my history classes, I often require students to use articles from *The New York Times* as sources for their student research paper. Rather than examining the source, as they have been instructed to do, some students would instead accept it as unquestionable fact. I have heard words to the effect of: “It is printed in *The New York Times*, so it must be true!”

Psychology classroom: In many class contexts, students often refer to

the brain and the mind interchangeably. They learn this association through popular culture. Even after I repeatedly explain the important difference to them, some perseverate, continuing to noncritically accept the conventions of popular discourse.

(2) *Hypercritical rejection*. The second category is hypercritical rejection, wherein a student resists an author's argument without giving due consideration to the logic of the text and other historical or pragmatic factors. This kind of error may signal the misunderstanding that a "critical" reading implies a negative one; it may also be that students distort the text by reducing its ideas to fit their own limited experience. Either way, they miss the point of the text.

Examples:

History classroom: One challenge of teaching Asian history is that students often impose their own moral judgment onto different cultures from different historical times. For example, when teaching Confucius, students often say things like: "Confucius is wrong because we don't believe that today." Such reactions reject consideration of the different historical circumstances in which these ideas arose; they also fail to invite reflection on our own cultural conditioning.

Psychology classroom: In teaching psychological theory, students often reject challenging ideas by imposing their own preconceived notions onto the text. A classic example occurs in the teaching of Freud. Some students will dismiss him altogether with comments such as: "Freud is so obsessed with sex. He clearly is a sexual pervert." In addition to failing to comprehend the complexities of Freud's ideas about sexuality, their negative attitude toward him may lead to rejection of other important contributions (such as ego defense mechanisms) that have proved lasting and influential within the field of clinical psychology.

(3) *Utter confusion*. The last category, utter confusion, is a failure to understand the text or "spacing out" while reading. This tendency may arise due to inadequate background or a lack of mindfulness. In addition, as exemplified here, some material is so challenging to students' belief systems that they simply find it incomprehensible.

Examples:

History classroom: Students who used to believe that Columbus was a great hero have difficulty comprehending a different historical narrative in which he is portrayed as an exploiter rather than a liberator.

Psychology classroom: Some students have difficulty conceiving that any of the types of emotional and behavioral patterns described in clinical psychology could apply to them. Therefore, it is difficult for them to relate to diagnostic categories in a suitably empathic way.

When students hold these erroneous understandings, classroom discussion can become insipid (due to noncritical acceptance), contentious (due to hypercritical rejection), and/or desultory (due to utter confusion). The questions arise: How do we correct these student errors, and how do we help students to cultivate genuine critical thinking skills? Our answer is that it involves the cultivation of self-awareness. With self-awareness, students will be able to correct these errors and develop an ever-deepening, sympathetic understanding by actively participating in their own learning.

Three-Level Understanding

Our approach offers a way of acquiring knowledge that is grounded not in the external environment but in self-awareness and sympathetic understanding. In order to fully understand the meaning of a text, students must confront the text in its fundamental otherness, meaning the ways in which the text varies from students' own implicit and preconceived understandings. This process requires that students have the self-awareness to recognize and bracket their preconceived ideas, which enables them to open fully to the text in order to understand the meaning the author intends to communicate. They also must notice and bracket their emotional reactions, enabling them to discern the text's inner logic without dismissively judging it; at the same time, noticing this reactivity serves as a means of knowing themselves more deeply. This process of conjoining critical reading with self-awareness is potentially transformative in ways both academic and personal.

Our approach to teaching the critical reading of texts is inspired by Michael Polanyi's (1959) analysis of logical levels in his small book *The Study of Man*. In making his analysis, Polanyi uses the example of seeing a cat. If we say "the cat is alive," this statement involves two logical levels:

- (1) the cat, and
- (2) myself (who sees the cat).

By contrast, the statement "the cat sees a bird" implies three logical levels:

- (1) the bird,
- (2) the cat, and
- (3) myself (who sees the cat seeing the bird).

Polanyi notes that adding this third logical level "brings with it a fundamental enrichment of our understanding" (p. 76). That is, now that we observe the cat in the act of observing the bird, we recognize that the cat has an interpretive framework that, from its own point of view, can be

deemed right or wrong. Further, Polanyi observes: “The more complex, three-levelled, logical structure is thus accompanied by an expansion of our fellow feeling which makes us aware of the animal’s sentience” (p. 76). That is, an essential part of this fundamental enrichment is the cultivation of sympathetic understanding of the other.

We have translated this notion of three logical levels into a principle for the critical reading of texts that we call three-level understanding and have applied it in our teachings. Here the three levels are:

- (1) the text,
- (2) the author of the text, and
- (3) the reader of the text (“I”).

We have found that teaching this approach does indeed, in Polanyi’s words, help our students to experience a fundamental enrichment in their understanding. It does so by bringing into focus two elements in the critical reading of texts students otherwise might overlook: (1) their own participation as reader, and (2) the participation of the text’s author. We now consider each in turn.

In the first instance, it is all too easy for students to overlook that there is an “I” in critical thinking. Who is thinking? Who is making the judgment? Why do you think in one particular way and not another? These and other factors enter into students’ own interpretations, yet are often overlooked. When that happens, students will project their preconceived ideas onto the text, potentially contaminating it and creating bias and distortion. Misunderstanding occurs when a text is made to conform to a preunderstanding that does not fit it.

One way of understanding this particular kind of error is to evoke the terminology of cognitive psychologist Jean Piaget (2001). When students make a text conform to their preunderstanding, they assimilate the text into what they already know, rather than accommodate themselves to the text. A classic example is that of a young child with a pet cat who encounters a dog for the first time, only to call it “kitty.” Rather than going through the learning process of creating a new cognitive frame for dogs (the process of accommodation), the child assimilates the dog into the child’s existing cognitive frame for four-legged animals. Intellectual development requires that we expand and refine our set of cognitive frames in order to view a larger world (that is, accommodate ourselves to it), which likewise requires that we resist the temptation to shrink the larger world to fit our existing cognitive frames (that is, assimilate it into our preunderstandings). When confronting novel situations, it is always tempting to assimilate rather than accommodate, as the latter necessitates effort and discipline. As such, students must learn to be-

come thematically aware of their role as observer, reflect on how their presuppositions can bias their interpretation of the text, and open to new ways of thinking and seeing.

In addition to neglecting to reflect on their own preunderstanding of a text, students also sometimes read a text as though it speaks for itself. They do not reflect on the author of the text nor the fact of the author's historical rootedness. Making such considerations thematic now suggests to students that reflecting on their own preunderstanding necessitates dialogue with the personal, cultural, and historical situatedness of the author of the text. That is, they must ask questions about their own assumptions with respect to those of the author. In this sense, the proposal presented here is wholly consonant with hermeneutical approaches to the interpretation of texts (Gadamer, 2014; Thiselton, 2009). How we see a text is necessarily shaped by our limited knowledge, which changes and reshapes how the text is able to reveal itself to us. In this way, critical thinking entails an ever-deepening process of understanding that ultimately might never end, yet will continue to enrich.

Using a three-level understanding that adds these two elements—the students' own participation in the reading of the text and the role of the author in writing the text—empowers students to engage in their own learning in a way that resolves the three categories of errors identified earlier. Students now have a basis by which to see themselves as interpreters of the text, and they can understand thematically the need to reflect upon their own preconceptions and to bracket them in order to focus on the logic of the text. In addition, cognizance of the author's role and historical condition in producing the text enables students to develop sympathetic understanding for the author's perspective. A larger view of the text emerges, one that has space to accommodate a variety of interpretations and perspectives. This enlarged view in turn facilitates greater precision and clarity in the reasoning process.

The Circle Diagrams

We provide students with pictorial representation of three-level understanding by using the diagrams of concentric circles shown in Figures 1 and 2. Students often refer to these diagrams—and three-level understanding more generally—as “the circles.” Figure 1 comprises three concentric circles:

- (1) The text: the center circle at the bottom represents the first level, the actual text being read for class.
- (2) The author of the text: the second level of analysis is the concentric

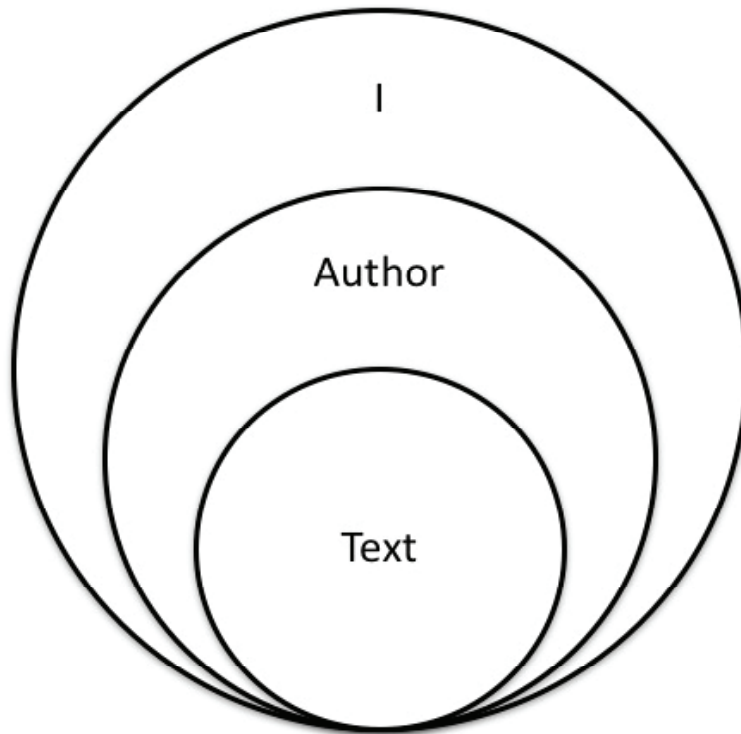
circle immediately outside the first level, representing the author of the text.

(3) The reader of the text “I:” the final circle represents the third level of analysis, the reader of the text, indicated with “I.”

For every text we read, we should engage with it at these three levels.

The errors produced by students arise when they are not aware of themselves in their role as reader, of the role played by the author of the text, or both. This becomes clear when we look at Figure 2. Here we see the same three levels, but now we depict the second (author) and third (reader) levels as each having a hidden dimension, depicted as an additional circle drawn with a dotted line. It is hidden because it is often overlooked by students when reading a text. The first of these hidden dimensions (dotted circles), which is depicted immediately outside that of the second (author’s) circle, signifies the personal, familial, social, and

Figure 1

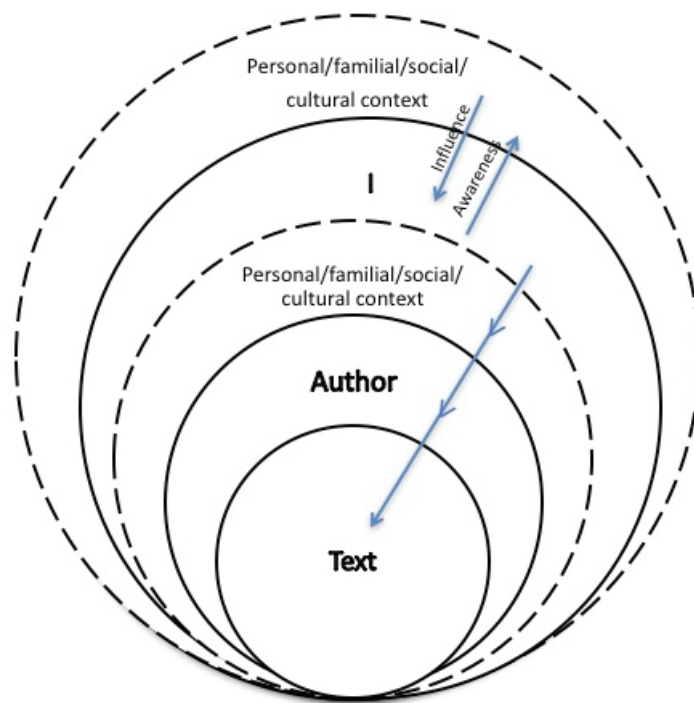


cultural context within which the author is embedded. The second of the dotted lines is immediately outside the third circle (reader, "I") and represents the reader's own (personal, familial, social, and cultural) context.

These hidden circles underscore that the author and reader each engage the text embedded within a different and unique situatedness. Therefore, an important aspect of critically reading a text is to evaluate the extent to which, on the one hand, authors are influenced by their particular personal-familial-social-cultural context, and on the other hand, to what extent they have managed to transcend it. Similarly, readers must be aware of their own personal-familial-social-cultural context and the way it influences how they think; this increased awareness enables them to expand their view of the text beyond the narrow lens through which they otherwise would see it. These three circles, complemented with their implicit dimensions (the dotted lines), make visually clear for students the ways in which the layering of a text is complex and dynamic.

Figure 2 also includes three arrows emanating from or entering into level three (the reader, "I"). The two parallel arrows pointing into

Figure 2



opposite directions indicate readers' relationship with their own personal-familial-social-cultural context. Within this couplet, the arrow marked "influence" points from the context to the reader, representing the influence the context exerts on the reader. The opposite arrow, marked "awareness," indicates the readers' awareness of that influence, which creates the opportunity to find some measure of freedom from it. The much longer third arrow is depicted with three arrowheads to signify the reader's sympathetic understanding of three distinct elements: the text, the author, and the author's unique situatedness.

These three arrows, which illustrate dynamic processes in the critical reading of texts, interrelate with one another. If the reader is unaware of their own participation in the reading of the text—meaning their own life situatedness—then it is unlikely that they can have sympathetic understanding of the author and the text. Reading a text properly is to enter into a relationship. Therefore, self-awareness is key to the entire process of reading critically.

These diagrams make visually clear for students the reader's role in interpreting the text and the set of influences that enter into that interpretation. It is quite significant for students to recognize that the reader participates in the meaning that arises from the engagement with the text, and this recognition adds to the dynamic complexity of the text while giving students an easy way of conceptualizing various levels of analysis. These diagrams also make conspicuously obvious that the student and the author approach the same text in ways that may be radically different. By reflecting on these diagrams, students begin to learn about their own reading and thinking processes and can start to recognize and correct errors that they have habitually made as they engage new materials.

It is important to emphasize for students that learning to read with these levels in mind is a practice that requires constant and continuous effort. The skills students cultivate through three-level understanding as represented by the circles are not restricted to the reading of texts (as will be exemplified later); they can be applied to all dimensions of their lives. It is a skill that, once acquired, has the potential to transform students in fundamental ways.

An Example

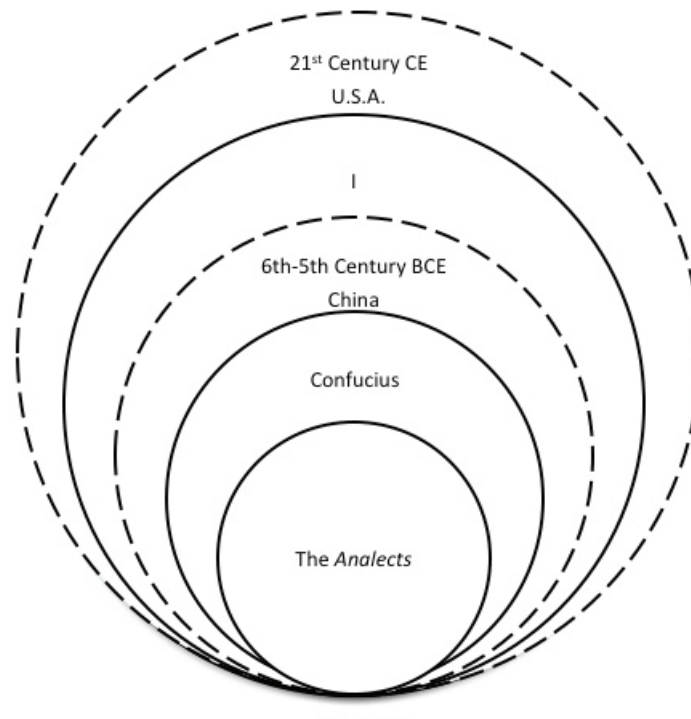
These circles can be used to correct all three kinds of errors detailed earlier. The first type of error (noncritical acceptance) and the third type (utter confusion) are corrected more easily than the second (hypercritical rejection). When you show a student a blank page, and instruct them on what should go onto it, it is relatively easy for them to fill the page. But

if the page already has markings, one first must erase what is there. Similarly, when a student approaches a text with strong preconceptions, they can taint the text's content in ways that must first be corrected or removed. This process requires the element of self-awareness that the circles are especially designed to promote. Therefore, to illustrate application of three-level understanding in the classroom, we consider an example of hypercritical rejection from a text that we coincidentally both use in different courses—one history and another psychology.

Figure 3 depicts a situation in which students are reading a particular passage from Confucius's *Analects*, which of course is positioned in the first circle. The passage reads as follows:

The Duke of She said to Confucius, "In my land there is an upright man. His father stole a sheep, and the man turned him in to the authorities." Confucius replied, "The upright men of my land are different. The father will shelter the son and the son will shelter the father. Righteousness lies precisely in this." (Ebrey, 1993, p. 21)

Figure 3



When students read this passage, they tend to agree with the Duke of She—consequently criticizing Confucius—because the Duke’s position is more similar to the students’ own 21st-century view. As shown in Figure 3, when students adopt the three-level understanding, their position and view of this quotation becomes more complex and different, particularly if they learn to adopt the sympathetic understanding of the text, author, and author’s situatedness. A more complex picture emerges, one that arises in the form of questions rather than quick judgments.

For example, after learning the principle of three-level understanding and reflecting on the circle diagrams, students might begin to ask questions such as: “Why would Confucius think that it would be right for the father and son to shelter each other?” This question represents a turning point from rejecting Confucius’s position outright to trying to understand it. This is the first step in students’ cultivation of self-awareness and sympathetic understanding in the reading of the text. Prior to this, those who automatically rejected Confucius’s position outright likely were caught up in their existing preconceptions, which they projected onto the text, thereby distorting its larger significance.

As their sympathetic understanding develops, students may ask questions such as: “How does this relate to Confucius’s moral philosophy?” This seemingly simple question represents a huge shift in the students’ position toward the text and in the possibilities for comprehending it. First, it demonstrates that students are aware there is an author behind the text, and that the text is produced within a particular time, place, and culture that is different from their own. Second, rather than taking the quotation out of its rich context, this question reveals that students now are relating it to the author’s overall body of work and trying to understand its significance within that context.

When students begin to think from the perspective of the author’s time, place, and perspective, the engagement with the text can serve as a mirror through which they can reflect meaningfully on their own situatedness. In the same way that a fish is unaware of the water in which it swims, we usually are unaware that our own circumstances reflect but one actualization of many human possibilities. In sympathetically engaging authors in their difference, students become thematically aware that their own time, place, and perspective are not absolute, but merely relative. This realization enables them to enter into a dialogical relationship with the author and the text in ways they could not before. This style of engagement then invites new questions: “Although this author’s view may be different from my own, is there any truth in it?” or “Is there any way that what the author is saying could apply to me?” or “Do the author and I share a common ground?” Asking questions such

as these invites students to probe more deeply into the significance of what the author has written; this in turn enables them to see their own presuppositions and biases more clearly. There may also be a universal concern that we can teach students to wonder about, namely: “Are the questions that confront this author questions that confront us as well, despite the different time, place, and historical circumstances in which we live?”

Implications for Classroom Discussion

The critical thinking skills for the reading of texts just outlined are applicable in a variety of other contexts, including classroom discussion. As indicated earlier, when students blindly accept what a text has said, they are unable to make a meaningful contribution to discussion. When they reflexively reject what has been said, they may lash out contentiously. When they are confused by what has been said, they may lose focus, become distracted, and/or offer opinion in place of analysis. When these habits manifest in the classroom, all productivity is lost. We personally have experienced these dynamics many times in our classrooms, and we expect our colleagues have too.

In a basic sense, three-level understanding and the circle diagrams promote better preparedness for classroom discussion. Students come to class with deeper comprehension of the text—often manifesting as incisive questions—than they otherwise might. Material that would previously have seemed abstract or boring comes alive when viewed from the perspective of the circle diagrams. Students gain greater capacity to stay focused on even difficult material because they are engaging it through their capacity for self-awareness. Classroom discussion naturally benefits, becoming more focused and dynamic.

Of course, in practice, students sometimes will stray from the text, asking questions or discussing material that the text cannot address. In those instances, the diagrams provide an easy way of bringing students back to the text by simply reminding them to “stay within the circles.” Although it is possible for students to ask excellent questions that fall outside the purview of the text, asking them to “stay within the circles” encourages students, as a matter of training, to temporarily suspend such inquiries for the sake of understanding the text more deeply. This process instills discipline in both reading and thinking.

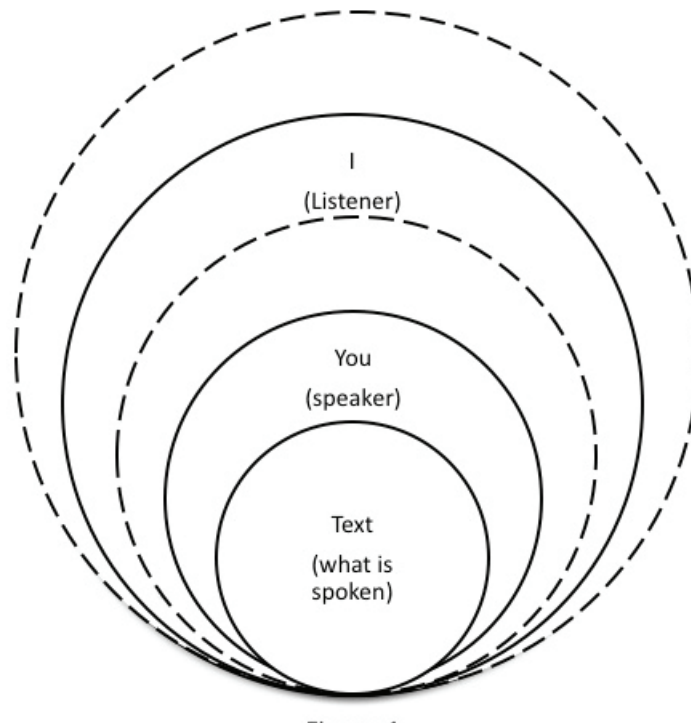
In these ways, adopting the principle of three-level understanding can enrich the level at which students discuss the content of a text. But we can also apply the same principle to understanding more deeply the process of discussing that content, encouraging students to become

more keenly aware of the ways in which they participate in discussion as dialogical partners. For example, when students speak in the classroom, they essentially “author” a verbal statement that the other students “read” in the act of listening. The act of “reading” (listening to) a student’s utterance invites the same kind of errors discussed earlier when reading a text, which often involve disregarding or distorting what has been said. When we apply three-level understanding at this level, we recognize the need to listen deeply to what is being communicated. This application of the principle of three-level understanding to the context of classroom discussion (and to conversational contexts more generally) is illustrated in Figure 4. Here the three logical levels are:

- (1) “Text”—what is spoken,
- (2) “You”—speaker, and
- (3) “I”—listener.

We have labeled this figure from the perspective of the listener (“I”) who is “reading the text” of the speaker (“you”). Of course, as with the

Figure 4



context of reading, the listener (“I”) and speaker (“you”) both have their own unique situatedness, depicted once again by dotted lines. Keeping these circles in mind during discussion encourages students to be respectful and attentive to what their classmates say and to recognize the possibility of a multiplicity of perspectives on the same text. As with the reading of a text, the discussion now offers a mirror through which students can see more vividly their own influences, preconceptions, and biases. They learn to listen deeply, hearing beyond the surface content in ways that make them more self-aware, compassionate thinkers and persons capable of seeing texts and situations from a more panoramic perspective. The point is not to create an absolute relativism, but on the contrary to bracket or suspend any processes or preconceptions that ordinarily would distort our perception, thereby enabling us to see and listen with greater precision and to think more clearly and logically.

Conclusion

The principle of three-level understanding developed here is offered as a simple, easily applied, and effective conceptual tool for helping students to think with depth and precision about the texts they read. This principle grounds the process of critical thinking in self-awareness. We intend this approach to serve as a framework within which we can situate traditional forms of critical thinking, including the more mechanical processes of deductive and inductive reasoning. The perspective offered here breathes life into these processes by recognizing how students’ axiomatic assumptions are grounded in actual lifeworld contexts. Further, insofar as self-awareness is an important capacity to employ in any life context, we assert that this method will be of interdisciplinary value even beyond our own successful use of it in the humanities and the social sciences. At least, this should be true for any discipline wishing to adopt a liberal arts stance.

To think critically with awareness, students must maintain a basic stance of openness and humility. They must be open not only to the new ideas presented in the texts they read, but also to their own mental and emotional life. Being open with themselves means recognizing their own limitations, which may take the form of gaps in knowledge, erroneous beliefs, prejudices, and emotionally charged reactive patterns. Of course, such openness necessarily requires humility and a commitment to learning. It is a form of active learning that is not easily won, yet can be encouraged and cultivated. When achieved, the rewards are great. We gain capacity to imagine others’ viewpoints without attempting to assimilate them into our own. This enables us to recognize and accommodate a continuum of

views and to evaluate where our own habitually oriented ways of thinking are situated among them. Our world expands, and we find a new place within it. As our sense of self likewise transforms, we come to know and treat others more fairly as we know ourselves more truthfully.

In this way, using three-level understanding to create critical, self-aware thinkers can be individually transformative. We believe that it can transform society as well. Self-aware critical thinkers take responsibility for what they think and feel, and they make conscious decisions as to what they believe and do. The need for such training is particularly urgent in a contemporary world whose addictive technologies constantly bombard us with media deliberately designed to blur the boundary between fact and fiction. It is essential in our contemporary situation that we empower students to realize that not all opinions are equally valid. They must be able to recognize when someone is speaking nonsense so that they can withstand the authoritarian impulse and contribute toward a more just, compassionate, and equitable society and world. As Asch's (1955) famous conformity study demonstrated, if but one person speaks a truth others feign to ignore, the timid among us will feel emboldened to speak as well.

What we are proposing here is a true liberal arts approach to education, a way of educating whole persons in their thinking, feeling, sensing, and reflective capacities. In this way, we hope to contribute to cultivating an aware, wise, and compassionate citizenry and to reintroduce a sense of value in an educational landscape from which it has been fading from view. We hope that this approach to teaching critical thinking can contribute to restoring education to its true purpose—the cultivation of the individual and the flourishing of the collective. It is by making our soil rich that we create the conditions for a beautiful rose garden to grow.

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