

# Do We Know What They Are Thinking? Theory of Mind and Affect in the Classroom

## ABSTRACT

Research on Theory of Mind explores how we develop the capacity to understand that others have thoughts and feelings that differ from our own and how we are compelled to “read” them. However, a preponderance of evidence from the cognitive humanities and cognitive neurosciences tells us that our readings are often misguided or just plain wrong. None of this work has considered how teachers and learners might engage in open conversations about theory to mind to identify misperceptions and enhance their understanding of one another’s thoughts and reactions in the classroom. In this essay, we explore how using what we call “Theory of Minding” as a rhetorical device may invite moments of vulnerability and of clarification when we engage in learning with our students, thus enhancing classroom dynamics. We describe how the idea of Theory of Minding developed, present an initial evaluation of it by students, and situate this technique in the rich literature about affect and pedagogy. We propose that using Theory of Minding in the classroom can be used to encourage more authentic and interactive engagement.

## KEYWORDS

Theory of Mind, affect, rapport, classroom dynamics

## A MIND-READING FAILURE IN THE CLASSROOM

Midway through our team-taught course on the cognitive humanities, a student answered a question about Theory of Mind saying, “My Theory of Mind is telling me that you both hated our papers.” The papers in question were midterm essays we had just returned—essays that we thought were some of the best we had ever read. Where did this disconnect come from? We thought our effusive feedback on their papers—about their creativity, their engagement, and their risk taking—was clear and obvious praise. Instead, this student’s perception of the amount of feedback was that it indicated something was wrong or needed to be fixed.

In this moment, we found ourselves in a Theory of Mind failure. And we were lucky that it had been exposed by a student comfortable enough to be vulnerable and engage with us in a playful way. What we learned in that moment was (1) students and faculty read each other regularly, (2) we are often wrong, and (3) having the ability to talk about the misleading nature of Theory of Mind opens up opportunities for community building. In other words, having the concept of Theory of Mind in our collective back pocket created a moment of insight that allowed us to reveal the unspoken affect in the room.

We ended this day's discussion by clearly sharing with our students how much we valued and respected the work they had done and by developing a plan together for how we would call out the unspoken impressions we developed about one another across the rest of the semester. This plan eventually morphed into our concept of Theory of Minding—a rhetorical device we use in the classroom to pause conversation and check in with each other about potential misreadings and misunderstandings. In this essay, we explain how this rhetorical device emerged, how we use it, how students perceive it, and why we think it may be an effective tool for instructors to have as they negotiate classroom affect.

For decades, research in developmental psychology on Theory of Mind has considered how we develop this capacity to understand that others have thoughts and feelings that are different from our own (Amodio & Frith, 2006; Apperly, 2012; Baron-Cohen, Leslie, & Frith, 1985). Depending upon the discipline and the research methodology employed, this ability may also be referred to as mind-reading, perspective taking, or empathic accuracy. While there are theoretical distinctions among these conceptions, what they all illustrate is the important human ability to try to take on the perspective or role of another. Once we understand that others may have thoughts and feelings different from ours, we spend a substantial amount of time during our interactions with them trying to figure out what they may be thinking and feeling in the moment. Research in social cognition has considered the ways in which we try to infer what others' thoughts and feelings might be during our interactions with them (Hess & Hareli, 2015; Miller, 2012). And as we know from current models of emotion and emotion regulation the “default model” for dealing with and thinking through affect is a social one (Butler, 2015; Coan, 2011). In other words, we need others to process our own emotional experiences.

That we engage in Theory of Mind frequently is undisputed. In fact, Zunshine (2010) calls it “a hungry adaptation of mind” arguing that “our cognitive adaptations for mind reading” are “promiscuous, voracious, and proactive” (p. 119). Ironically, she also points out that although we cannot help but engage in Theory of Mind, the assumptions we make from it are often wrong. Using a cognitive humanities approach to examining Theory of Mind she finds that “We perceive people’s observable behavior as both a highly informative and at the same time quite unreliable source of information about their minds” (p. 119). Therefore, Zunshine emphasizes the “paradox” in which we find ourselves: we are both compelled to read others and spectacularly bad at doing so.

Our hunger to read others and the mistakes we make while doing so are confirmed by Apperly (2012) who has found evidence that we tend to rely too much upon our own egocentric perspectives when reading the minds of others (see also Apperly et al., 2010). Moreover, recent work in social neuroscience suggests that Theory of Mind functions differently depending upon the person we are “reading.” For example, we engage our own episodic memory (e.g., our personal memories of specific events like our 16th birthday party) to determine what someone similar or familiar to us might be thinking or feeling. In contrast, we use more semantic based memory (e.g., our general world knowledge like what a birthday party is) to determine what someone we perceive as different from or unfamiliar to us might be thinking or feeling (Ciaramelli, Bernardi, & Moscovitch, 2013; Spreng & Mar, 2012). The fact that Theory of Mind varies depending upon who we are communicating with illustrates not only that our guesses about others' thoughts and feelings can be wrong, but they can also perpetuate misunderstandings and stereotypes. Moreover, research on metaperceptions (or how people think about what people think about them) shows that in situations like the classroom (where the perception of the instructor can have a big impact on the life of a student), we are especially “off” in our interpretations of how people “see” us. As Carlson and Barranti (2017) point out these “outcome-

dependent situations tend to hinder insight, because they lead to erroneously assuming others know more about the self than is really the case or to overthinking the meaning of social feedback” (p. 175). In other words, it would be particularly important to disrupt these incorrect metaperceptions so we can attempt to foster authentic conversation and learning between instructors and students.

#### EXPLORING EMOTION: OUR INTRODUCTION TO THEORY OF MIND/ING

We became interested in using Theory of Mind in the classroom while team-teaching a course informed by the cognitive humanities (Zunshine, 2010). This course focuses on humanistic and empirical concepts of affect, emotion, and “the passions.” In the course, “Exploring Emotion,” we ask such questions as “How do humans express and regulate emotion?” and “How can we best integrate work across disciplines to address questions like this?” Beginning in the 18th century with philosophers and writers and moving into contemporary research, we explore the methods and models of various perspectives on how people express and regulate feeling. Literary examples include the Joanna Baillie’s *Plays on the passions*, Jane Austen’s *Sense and sensibility*, and the poetry of John Keats. We also discuss scientific selections, beginning with Charles Bell’s pioneering treatise on facial musculature and expression and moving into current psychological and neuroscientific work. These texts are juxtaposed with and inform interpretations of one another. Broadly, the course models interdisciplinary approaches to research and scholarship informed by one instructor’s training as a British Romanticist and the other instructor’s training as a cognitive psychologist. Overall, our goal is to stress the importance of interdisciplinary processes across disciplinary content.

One section of this course focuses on Theory of Mind, the factors used to engage the process, and its fallibility. We noticed that after this section of the course, we were able to reference Theory of Mind as a way to re-engage conversations during awkward pauses and seeming confusion. For example, we could pause class to say, “My Theory of Mind is telling me that you are thinking this reading was too hard” or “My Theory of Mind is telling me that you are thinking that this topic is boring.” By using the term *Theory of Mind* in this nontraditional, playful way, we have been able to break down the wall that often exists between what students are *thinking* and what they are *saying* (or not saying!) during discussion. Doing so has allowed us to engage more authentic moments of reaction to and thoughts about classroom material.

We call this explicit use of Theory of Mind in the classroom *Theory of Minding*. Theory of Mind is an area of research that illustrates how we seek to understand what others are thinking and feeling and that reveals how wrong we usually are when doing so. We have constructed Theory of Minding as a way to introduce students to these ideas and then create a shorthand that can be used in the classroom to have explicit conversation about what we are all thinking and feeling. We see Theory of Minding as one potential way of clearing space for conversations in the classroom that might not take place otherwise. We consider it a rhetorical device that allows us to “see” each other in the classroom in new ways. We present Theory of Minding as a new way of looking, at witnessing, what is taking place in the classroom. It gives both instructors and students permission to be wrong in their interpretations or to miss seeing things in the same way. It does this because at its heart, Theory of Minding is knowing that being wrong is “normal.” With this conception of Theory of Minding, we see connection to Thompson’s (2017) pedagogy of “teaching with tenderness.” As she eloquently asks,

*Might we sometimes be looking in the wrong places for what we are seeking? Looking to the test? Looking to the desk? Looking to the PowerPoint? Looking to the one who first raises her hand? Looking to the brain, not the heart? So what if we look to the process? Look to hands in motion and those wrapped in balls? Look to the shift in an energetic presence? Look to the invisible guides? Look to the mind, swirling, perched, melding, and at rest? (p. 103).*

For Thompson, teaching with tenderness calls us to see what we miss, ignore, or lose in the classroom because of where our attention is normally focused. Theory of *Minding*, then, acknowledges one way we “miss” what is happening without realizing it. This happens when we think we have correctly interpreted others’ actions as a way to understand what they are thinking or feeling. Theory of *Minding* gives instructors a moment to check on their own perceptions, illuminate classroom dynamics, increase student confidence and engagement, and create a sense of authentic community with students. In the following sections, we describe how we modified Theory of Mind into the pedagogical tool we call Theory of *Minding*.

### THEORY OF MINDING: DISRUPTING AFFECTIVE MISPERCEPTIONS

So, what would Theory of *Minding* in the classroom look like? We envision four steps instructors can take to introduce the concept of Theory of Mind and invite students to use Theory of *Minding*:

1. Have a direct conversation about talking productively about emotion in the classroom
2. Introduce the concept of Theory of Mind to students
3. Stress the fallibility of Theory of Mind
4. Check in throughout the semester

The first step is to have an explicit conversation about how emotions come into and are felt in the classroom and why acknowledging those emotions in productive ways is important to creating an authentic classroom community. The goal of this step is to establish a different kind of classroom dynamic—one in which both students and instructors can openly share confusions that might lead to anxiety, shame, resentment, frustration, and fears of being wrong—to lay our emotions on the table, and therefore to be able to work through them together. Instructors could share a moment when they might have misinterpreted a student’s response or action in the classroom, and students could consider when they may have misread an instructor’s advice or feedback. We acknowledge that such an exercise puts both instructors and students in a vulnerable space and that some may be more able to engage the process than are others. But, as Thompson (2017) suggests, attempting to move in this direction when we are able to can radically reshape classroom dynamics. As faculty of difference ourselves, it took some years for us to be able to use techniques like this one in our teaching. It remains a risk and learning experience for us, but it is one we value and hope others will be willing to try.

The second step is introducing the concept of Theory of Mind to students. We suggest asking students to read a brief chapter by Zunshine (2010) from her collection *Introduction to Cognitive Cultural Studies*. At 11 pages, chapter 5, “Lying Bodies of the Enlightenment: Theory of Mind and Cultural Historicism” is an accessible introduction about the concept for students from any discipline or background. We have had first- and second-year students with no previous experience in psychology or English read this chapter and successfully understand the concept and its limitations. In particular, we emphasize Zunshine’s operational definition:

*Theory of Mind, also known as “mind reading,” is a term used by cognitive psychologists and philosophers of mind to describe our ability to explain behavior in terms of underlying thoughts, feelings, desires, and intentions. We attribute states of mind to ourselves and others all the time. Our attributions are frequently incorrect, but, still, making them is the default way by which we construct and navigate our social environment. (p. 117)*

Importantly, after introducing this definition, we break down Zunshine’s understanding of the concept by emphasizing two distinct and important underlying assumptions. She explains that “first, I think of our cognitive adaptations for mind reading as promiscuous, voracious, and proactive” (p. 119). So we remind our students that we are always trying to figure out what others might be thinking or feeling, even if we think we are not; indeed, it is almost automatic. Once we have discussed the key elements and limitations of Theory of Mind, we stress its fallibility and focus on Zunshine’s second assumption, which, she argues, presents a paradox: “we perceive people’s observable behavior as both a highly informative and at the same time quite unreliable source of information about their minds. This double perspective is fundamental and inescapable, and it informs all of our social life and cultural representations” (p. 119).

At this point, we focus on the idea that although one may think one knows what the other is thinking (e.g., the students may think they know what the instructor is thinking about their performance in class; the instructors may think they know what the students are thinking about their performance in class), chances are that assumption is wrong. In other words, we let them know that we can often misread their facial expressions as signals of confusion, boredom, or fatigue, and using this technique allows them the opportunity to provide alternative readings of their affect and behavior. This check-in technique provides instructors with a nonjudgmental way of prodding students so that misconceptions can be identified and addressed in a communal way. Theory of *Minding* provides the ability to acknowledge (and celebrate!) vulnerability and mistakes on the part of both instructors and students, to name the discomfort and negative affect they may be fighting, to disrupt the dynamics of authority, and to allow them to move beyond the expected script for classroom conversations.

Finally, the fourth step is to make sure to use Theory of *Minding* consistently throughout the course of the semester. This can mean checking in at beginning of each class, stopping discussion during lulls or when identifying faces of seeming confusion, and using self-reflection on class activities. Each of these moments provides the opportunity to discuss any mismatches between students’ and instructors’ interpretations of behavior, thoughts, and emotion. We have also found that it can be helpful to ask students directly to think about how Theory of *Minding* might be used in the classroom to facilitate discussion and learning. In other words, by asking for student feedback on this pedagogical tool, they are brought into the process and have ownership of it.

## ASSESSMENT AND REFLECTION ON THEORY OF MINDING

Using an in-class questionnaire, we asked students to reflect on different aspects of Theory of *Minding* (see Appendix for questionnaire). Participants were 13 students in an interdisciplinary (psychology and English), team-taught course on emotion in the third time the course had been offered. At mid-semester, following an integrated unit on Theory of Mind, students were asked to respond to several open-ended questions regarding its potential use in the classroom, including (1) when students and instructors might misread each other in class and (2) how instructors or students might use Theory

of *Minding* to facilitate contribution. They also responded to a series of Likert scale questions assessing the need, use, and benefits of this pedagogical practice. The survey was approved by the Institutional Review Board, and students received and signed an informed consent for their participation in the study.

First, we asked, “When might students and instructors misread each other in class?” The most common response (mentioned by about 50 percent of respondents) was that instructors may misread students as being lazy or disengaged when they are silent during class conversation. Instead, they suggested that these moments of silence could reflect their fear and anxiety. For example, our students suggested that during these moments of silence, they may be struggling affectively with the fear of receiving a bad grade, of sticking out during classroom disagreements, feeling vulnerable or uncomfortable, and being nervous about speaking up because they might be wrong. Students know that instructors are evaluating them for being unprepared, and students’ fear of exposure or of being wrong may be what prevents them from contributing to discussion and demonstrating what they know. This potential failure of Theory of Mind on the part of instructors suggests that they should stop and ask themselves about whether or not they are clear about the importance of process, the struggle to engage in classroom discussions, and the goals of working things out in class, even if things are not fully known or understood. In other words, are they doing their best to make this message of uncomfortable contribution clear?

We also asked students to consider, “How might instructors or students use Theory of *Minding* in the classroom to help facilitate discussion?” More than half of the respondents indicated that instructors could use Theory of *Minding* to bring students into the conversation. Responses indicated doing so could include strategies like asking prompting questions, explicitly inviting them to participate, or directly calling them out by referencing their (potentially incorrect) reading of students’ facial expressions. Students also suggested that Theory of *Minding* on the part of instructors could help students contribute half-formed thoughts. While such strategies might not represent what all students are looking for, reflections like these may be surprising for instructors who avoid putting students on the spot. In other words, even as they try to be supportive, generous, and inviting in class discussions, instructors may be failing at Theory of Mind by wrongly thinking students do not want to be explicitly invited to contribute. Instructors could use Theory of *Minding* to safely give students the opportunity to jump into the conversation without having to initiate that engagement themselves. Our students saw Theory of *Minding* as a useful way to help direct conversation. Eventually, by having this approach modeled for them, students may be more likely to initiate engagement in classroom contributions.

Students also reported that they could use Theory of *Minding* themselves to get help navigating difficult material and conversations. In particular, students saw Theory of *Minding* as a way to focus discussion on areas they did not understand, to help them figure out what other students might know, and to collaboratively break down a difficult concept. Their use of Theory of *Minding* might look like students directly addressing one another and asking “what I think you mean” or “I think that you are thinking that” or “what I think I heard you say.” In other words, Theory of *Minding* works as a rhetorical strategy that allows students to ask clarifying questions and suggest ideas without implying that there is a mistake in what another student has just said. Relatedly, students also indicated that they could use Theory of *Minding* to help ease the tension that develops when they contribute to class discussion. They seemed to experience a great deal of anxiety and stress around being misunderstood or being incorrect in classroom discussions. This anxiety suggests that students are very serious when they are in that space and that they may not feel like playing or trying new ideas on in public. Using Theory of *Minding* as a

rhetorical strategy could alleviate some of that tension and create a space that allows misunderstandings to safely occur and be used to learn. As one student noted, the bidirectional use of Theory of *Minding* can be helpful because “a lot of the times professors see a student that is not contributing a lot in class as lazy or disengaged when most of the time the student just feels nervous about speaking up in class or being wrong.”

Finally, we asked students, “In what other ways might using Theory of *Minding* in the classroom help learning?” A majority of the respondents referenced the idea that Theory of *Minding* can help create open, collaborative learning. They indicated that using this tool made them see it was okay to ask questions and be confused. They discussed how Theory of *Minding* could facilitate collaboration by creating a dynamic in which they felt, as one student explained, “comfortable asking for clarification instead of feeling stupid for asking for additional explanation.” Rather than interpreting this response as students seeking a place of safety from difficult content or conversations, we argue that they are asking for permission to be wrong and to ask questions. They are seeking the safety to ask more of one another, not safety from one another. In addition, students indicated that using Theory of *Minding* could “make [the] classroom dynamic genuine, honest, inclusive.” Again, we see that this is not about creating safety from difficulty or controversy, but rather allowing a space where they felt they could be “honest about what [they] are thinking,” which they pointed out could create “less deception or confusion.” Students also perceived that Theory of *Minding* could help increase the quality of the discussions by making it “comfortable” to ask more of one another, and thus by creating authenticity in the classroom space. Specifically, they mentioned that Theory of *Minding* could improve student-student interactions because it would help them know if they were “reading fellow students correctly” and, surprisingly, they saw that it might help prevent “group think,” perhaps by allowing each member of the class to be “genuine”—to express what they are really thinking.

The other ideas expressed by students about how Theory of *Minding* might help learning build upon this idea of better quality, deeper conversations. By disrupting the safety of just agreeing with what everyone else has said, and by valuing vulnerability without judgement, the kinds of conversations we have can expand beyond routine or shallow insights. In fact, students indicated that using Theory of *Minding* may allow them to learn how to connect ideas and think more deeply, be more conscious and attentive during classroom discussions (because their classmates have important contributions to make as well as the instructor), and thus inspire them to come up with and learn things they might not otherwise have considered based on their own interpretations of the material.

Students also responded to a series of Likert-style questions that were designed to evaluate their understanding of Theory of Mind. Because the sample size is just 13 students, these data are presented solely as a preliminary snapshot of student perceptions. But we see that they do coincide with the themes that emerged in the rich responses to the open-ended questions. Specifically, most agreed that it was easy to understand the concept of Theory of Mind (see Table 1). In addition, students agreed that both instructors and students often misinterpret one another. Moreover, they agreed that they often stop themselves from participating in classroom conversation when they have ideas to share. Overall, then, the students’ responses fit with our proposal that using Theory of *Minding* can be a rhetorical strategy to disrupt misinterpretations and, possibly, to increase their contributions to class conversations. As one student shared, “This [Theory of *Minding*] may bring students and professors to have a better understanding and comfort with each other, instead of the students feeling like there is a hierarchy between them.”

We also wanted to determine what potential benefits students would see in using Theory of Mind (see Table 1). Students' responses showed that the two most beneficial aspects of using Theory of Minding as a classroom tool would be *increasing authenticity* and *facilitating a sense of community*. Students also agreed that Theory of Minding would *enhance engagement*. Still, despite their positive impression of Theory of Minding, students were hesitant to agree that it would increase their likelihood of or comfort with participation. This hesitancy may be a testament to the depths of their own anxieties and fears not only with participation but also with being wrong. In addition, these responses suggest that when students invoked the idea of "comfort" in the open-ended questions, they did not necessarily mean ease of conversation. In other words, comfortable conditions created by theory if *minding* would not make participation easier, but could create a community in which they felt they were all in it together. So, for instructors who think that making students uncomfortable is a way to challenge them, our students' reflections suggest that there may be a way to create a simultaneously comfortable and challenging environment.

**Table 1. Average responses (standard deviations in parentheses) to questions about Theory of Mind (how often/to what extent) on a scale of 0 (not at all) to 6 (very)**

RESPONSE	FREQUENCY
Ease of understanding	4.20 (1.08)
Instructors misinterpret	3.27 (1.33)
Students misinterpret	3.80 (1.08)
Stop self-participation	4.0 (1.13)
Authenticity	4.67 (1.11)
Engagement	4.0 (1.20)
Comfort with participating	3.6 (1.45)
Likelihood of participating	3.67 (0.98)
Build community	4.67 (0.98)

### THEORY OF MINDING AS A NEW TOOL IN AFFECTIVE PRACTICE

Theory of Minding has been a helpful tool for us as we strive to create an authentic learning community with our students. And, as we have shown, it is possible to incorporate into the classroom and received well by students. We have thought a lot about what might make Theory of Minding an effective tool. To answer that question, we must first understand that classrooms are hotbeds of unacknowledged affect and insecurity. As one student commented, getting into the flow of a new semester can mean getting over the idea that their instructors are going to hate them. On the other hand, we know many colleagues (us included) often feel the need to gird their loins to go back into the classroom after having read through seemingly mean-spirited, hurtful student feedback. So, almost inevitably, at some point in a given semester, both students and instructors think the worst about what the other thinks or feels about them.

This emotion has an impact on students' ability to learn and instructors' ability to teach. Research on instructor-student relationships shows that this affect is driven primarily through a desire to belong (Hagenauer & Volet, 2014). The quality of these relationships has an impact on student dropout rates, teacher burnout, and the quality of teaching (p. 371). Affect can create some of our best or worst teaching and learning experiences. As Chinn (2011/2012), Boler (1999, Thompson (2017), Zorn and

Boler (2007), and others have argued, teaching is an emotional practice. Chinn (2011/2012) notes “to teach is to have feelings about teaching: about ourselves as teachers and students, and about the pedagogical experience as a whole” (p. 15-16). Feminist scholarship has long acknowledged and studied the primary place of emotion in educational settings and all of the challenges that it brings with it (Case, 2016; Coffey & Delamont, 2000; Gallop, 1995; Hesford, 1999; Hickey-Moody & Page, 2016; hooks, 1994; Light, Nicholas, & Bondy, 2015; Thompson, 2017). We see Theory of Minding as in conversation with this previous work and as a way to move into new, interesting areas of exploration in instructor-student relationships.

Affect in the classroom is not new, nor is the study of it. But the impact of this affect on students and instructors has become an issue that higher education can no longer afford to ignore. While higher education has always been political, the political and social realities that students and instructors negotiate on a daily basis have intensified. And the profile of the “typical” college student has continued to change: there are more students of color, more first-generation and low-income students, more students struggling with depression and anxiety, more students whose families may be directly affected by factors beyond their control. As faculty of difference, we feel these pressures in new ways, too. Not engaging these realities diminishes the possible experiences students will have in the classroom. And wrongly thinking that we have correctly interpreted what students are thinking and feeling prevents us from doing this work. She is not lazy; he is not bored; they are not mad at us. Theory of Minding disrupts stereotypes and misconceptions so that we can think about the kind of teaching Thompson (2017) calls us to consider. As she asks, “What kind of teaching do we need to do so that students feel deeply connected to each other, so that we know if you poison one person, you poison all of us?” (p. 111). Instead of trying to ignore, avoid, or eliminate emotion from our teaching, we should find ways to acknowledge and open up conversations about it with our students (Cavanagh, 2016).

Affect cannot and should not be divorced from the classroom. Let us leverage the power of these interpersonal dynamics (Frisby & Martin, 2010). As Hickey-Moody (2013) describes, affect can be a methodological tool for learning (p. 79). Leveraging emotion in the classroom is not about making students “satisfied” or “feel good” (Frisby & Martin, 2010; Goodman, Murphey, & D’Andrea, 2014; Howard, 2015). As Alexander (2011/2012) suggests, “discomfort, frustration, anger, and a range of other negative affects evinced in the classroom might point us to students’ desires that ought to be discussed rather than satisfied” (p. 60). As Thompson (2017) shares, ignoring the painful topics is a disservice to our students who then “feel lied to by me, by their former teachers, by their parents, and by the media” and end up asking “How come I didn’t learn this in high school?” (p. 45). As Thompson emphasizes, “[i]t is not that people escape feeling uncomfortable. I have never thought that the point is to make a conflict-free classroom; rather, it is to make a classroom where people can live through the discomforts that arise as we learn together” (p. 48). With a more radical directive, Boler (1999) explains “a pedagogy of discomfort begins by inviting educators and students to engage in critical inquiry regarding values and cherished beliefs, and to examine constructed self-images in relation to how one has learned to perceive others” (p. 179). In other words, negative affect that we can explicitly talk about is negative affect we can learn from. This is not “trauma” or “trigger warning” stuff. This is productive discomfort, not paralysis.

Using affect in our pedagogy requires us to consider how people “read” affect and how terribly wrong they can be about that “reading” (Barrett, 2011; Barrett, Mesquita, & Gendron, 2011; Fridlund & Russell, 2006). Or put more simply, we think we know what students are thinking and feeling. They

think they know what their faculty are thinking and feeling. But, really, no one knows much, and what we all think we know is usually wrong. In embracing emotion as a site of learning, researchers must avoid the idea of emotional reading as instinctual or transparent. For example, Hargreaves (2001) argues that “teaching, learning, and leading all draw upon emotional understanding as people reach into the past store of their own emotional experience to interpret and unravel, *instantaneously, at a glance* the emotional experiences and responses of others” (emphasis ours, p. 1059). Unfortunately, what we know about the operation of Theory of Mind is that our interpretations about the feelings and thoughts of others are wrong more often than they are right (Zunshine, 2010). Moreover, research by Ickes (2017), Spreng & Mar (2012), and others demonstrates that the way we “read” others depends upon our relationship with them. For example, we interpret the thoughts and feelings of others differently if they are like us, familiar to us, or considered friendly (Fink, Begeer, Peterson, Slaughter, & de Rosnay, 2015). Indeed, we are more likely to use our own experiences to read others if they are familiar to us—a clear source of potential bias in our “instinctual” reading of others’ thoughts and feelings (Reysen, Hall, & Puryear, 2014). Instructor training methods that ask faculty to read the expressions and behaviors of their students as a way to understand how they are learning must recognize the potential limitations of doing so (Gehlbach, Brinkworth, & Wang, 2012; Johnson, Dugan, & Soria, 2017; Roberts, 2002).

Many existing pedagogical tools rely on making the process of learning explicit. For example, metacognitive conversations have been proposed as a way to reveal what is happening during the process of learning. However, metacognition works through exposing the way we think and study; it is not a method that recognizes emotion or our vulnerability to it. Theory of *Minding* is something different. It challenges the misconceptions we have about our ability to read the thoughts and emotions of others from their facial expressions and behaviors. This distinction matters because our search of the literature suggests that very few instructors in higher education are thinking about this compulsion to mind-read others, how it goes wrong, and how that can have an impact on our relationship with students. Making students and instructors aware of the process and limitations of Theory of Mind can open up conversations about it. We see this concept as an important, missing piece in conversations about affective pedagogy. Theory of *Minding* as a rhetorical device recognizes, calls out, and responds to the emotions students experience when engaging in new or challenging tasks or topics. It does not assume that we know what our students are thinking and feeling. In other words, we are interested in continuing to explore how making Theory of Mind “meta” may invite moments of vulnerability and of clarification when we engage in learning with our students. Given the importance of emotion to the process of learning on the one hand, and the inevitability of emotional misreadings on the other, we present Theory of *Minding* as a way to playfully engage instructors and students in open, honest conversations about affect in the classroom.

## CONCLUSION

If the compulsion to engage in Theory of Mind often leads to misinterpretation, using Theory of *Minding* disrupts and interrogates these moments of misperception and creates a dynamic of authenticity—by opening up a conversation about what we are “really” thinking and feeling. In terms of the classroom experience, we propose that Theory of *Minding* is a fruitful rhetorical strategy that can be adopted by instructors looking for additional ways to think about affect and its interpretation in the classroom. Using Theory of *Minding* allows both instructors and students to call out the mismatches in expectations and interpretations they may have of one another and to do so in a way that promotes the

development of community. As instructors and students adopt this new way of interacting, the negative affect often experienced by students in the classroom could be alleviated. Theory of *Minding* allows us to share our thoughts and feelings in the classroom honestly, openly, and productively, supporting the teaching and learning process as a whole. Future research could directly assess the impact of Theory of *Minding* on students' affective experience and determine in what ways using Theory of *Minding* might facilitate other aspects of classroom dynamics such as the development of instructor-student or student-student rapport, instructor pedagogical techniques and styles, and student motivations to engage as active learners.

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## REFERENCES

- Alexander, K. B.C. (2011/2012). Teaching discomfort? Uncomfortable attachments, ambivalent identifications. *Transformations: The Journal of Inclusive Scholarship and Pedagogy*, 22(2), 57-71. <https://www.jstor.org/stable/10.5325/trajincschped.22.2.0057>
- Apperly, I. A. (2012). What is "Theory of Mind?" Concepts, cognitive processes and individual differences. *Quarterly Journal of Experimental Psychology*, 65(5), 825-839. <https://doi.org/10.1080/17470218.2012.676055>
- Apperly, I. A., Carroll, D. J., Samson, D., Humphreys, G. W., Qureshi, A., & Moffitt, G. (2010). Why are there limits on Theory of Mind use? Evidence from adults' ability to follow instructions from an ignorant speaker. *Quarterly Journal of Experimental Psychology*, 63(6), 1201-1217. <https://doi.org/10.1080/17470210903281582>
- Amodio D. M., & Frith, C.D. (2006). Meeting of minds: The medial frontal cortex and social cognition. *Nature Reviews Neuroscience*, 7, 268-277. <https://www.nature.com/articles/nrn1884>
- Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a "Theory of Mind"? *Cognition*, 21(1), 37-46. [http://dx.doi.org/10.1016/0010-0277\(85\)90022-8](http://dx.doi.org/10.1016/0010-0277(85)90022-8)
- Barrett, L. F. (2011). Was Darwin wrong about emotional expressions? *Current Directions in Psychological Science*, 20(6), 400-406. <https://doi.org/10.1177/0963721411429125>
- Barrett, L. F., Mesquita, B., & Gendron, M. (2011). Context in emotion perception. *Current Directions in Psychological Science*, 20(5), 286-290. <https://doi.org/10.1177/0963721411422522>
- Boler, M. (1999). *Feeling power: Emotions and education*. New York, NY: Taylor and Francis.
- Butler, E. A. (2015). Interpersonal affect dynamics: It takes two (and time) to tango. *Emotion Review*, 7(4), 336-341. <https://doi.org/10.1177/1754073915590622>
- Carlson, E. N., & Barranti, M. (2017). Metaperceptions: Do people know how others perceive them? In J. A. Hall, M. S. Mast, and T. V. West (Eds.), *The social psychology of perceiving others accurately* (pp. 165-182). New York, NY: Cambridge University Press.
- Case, K. A. (Ed.). (2016). *Intersectional pedagogy: Complicating identity and social justice*. New York, NY: Routledge.
- Cavanagh, S. R. (2016). *The spark of learning: Energizing the college classroom with the science of emotion*. Morgantown, WV: West Virginia University Press.

- Chinn, S. E. (2011/2012). Once more with feeling: Pedagogy, affect, transformation. *Transformations: The Journal of Inclusive Scholarship and Pedagogy*, 22(2), 15-20.  
<https://www.jstor.org/stable/10.5325/trajincschped.22.2.0015>
- Ciaramelli, E., Bernardi, F., & Moscovitch, M. (2013). Individualized Theory of Mind (iToM): When memory modulates empathy. *Frontiers in Psychology*, 4, Article 4. <https://doi.org/10.3389/fpsyg.2013.00004>
- Coan, J. A. (2011). The social regulation of emotion. In J. Decety & J. T. Cacioppo (Eds.), *The Oxford handbook of social neuroscience* (pp. 611-623). Oxford: Oxford University Press.
- Coffey, A., & Delamont, S. (2000). *Feminism and the classroom teacher: Research, praxis, pedagogy*. New York, NY: RoutledgeFalmer.
- Fink, E., Begeer, S., Peterson, C. C., Slaughter, V., & de Rosnay, M. (2015). Friendlessness and Theory of Mind: A prospective longitudinal study. *British Journal of Developmental Psychology*, 33(1), 1-17.  
<https://doi.org/10.1111/bjdp.12060>
- Fridlund, A. J., & Russell, J. A. (2006). The functions of facial expressions: What's in a face? In V. Manusov and M. L. Patterson (Eds.), *The Sage handbook of nonverbal communication* (pp. 299-319). Thousand Oaks, CA: Sage.
- Frisby, B. N. & Martin, M. M. (2010). Instructor–student and student–student rapport in the classroom. *Communication Education*, 59(2), 146-164. <https://doi.org/10.1080/03634520903564362>
- Gallop, J. (1995). *Pedagogy: The question of impersonation*. Bloomington, IN: Indiana University Press.
- Gehlbach, H., Brinkworth, M. E., & Wang, M. T. (2012). The social perspective taking process: Strategies and sources of evidence in taking another's perspective. *Teachers College Record*, 114(1), 226-254.  
<http://www.tcrecord.org/Content.asp?ContentId=16215>
- Goodman, S. B., Murphy, K. B., & D'Andrea, M. L. (2014). Discussion dilemmas: An analysis of beliefs and ideals in the undergraduate seminar. *International Journal of Qualitative Study in Education*, 27(1), 1-22.  
<https://doi.org/10.1080/09518398.2012.731529>
- Hagenauer, G., & Volet, S. E. (2014). Teacher–student relationship at university: An important yet under-researched field. *Oxford Review of Education*, 40(3), 370-388.
- Hargreaves, A. (2001). Emotional geographies of teaching. *Teachers College Record*, 103(6), 1056-1080.  
<https://www.tcrecord.org/content.asp?contentid=10838>
- Hesford, W. S. (1999). *Framing identities: Autobiography and the politics of pedagogy*. Minneapolis, MN: University of Minnesota Press.
- Hess, U., & Hareli, S. (2015). The role of social context for the interpretation of emotional facial expressions. In M. K. Mandal and A. Awasthi (Eds.), *Understanding facial expressions in communication: Cross-cultural and multidisciplinary perspectives* (pp. 19-141). New York, NY: Springer.
- Hickey-Moody, A. (2013). Affect as method: Feelings, aesthetics and affective pedagogy. In R. Coleman and J. Ringrose (Eds.), *Deleuze and research methodologies* (pp. 79-95). Edinburgh: Edinburgh University Press.
- Hickey-Moody, A., & Page, T. (Eds.). (2016). *Arts, pedagogy and cultural resistance: New materialisms*. Lanham, MD: Rowman & Littlefield International.
- hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. New York, NY: Routledge.
- Howard, J. R. (2015). *Discussion in the college classroom: Getting your students engaged and participating in person and online*. San Francisco, CA: Jossey-Bass.
- Ickes, W. (2017). Empathic accuracy: Judging thoughts and feelings. In J. A. Hall, M. S. Mast, and T. V. West (Eds.), *The social psychology of perceiving others accurately* (pp. 52-70). New York, NY: Cambridge University Press.
- Johnson, M. R., Dugan, J. P., & Soria, K. M. (2017). Try to see it my way: What influences social perspective taking among college students. *Journal of College Student Development*, 58(7), 1035-1054.  
<https://doi.org/10.1353/csd.2017.0082>
- Light, T. P., Nicholas, J., & Bondy, R. (Eds.). (2015). *Feminist pedagogy in higher education: Critical theory and practice*. Waterloo, ON: Wilfrid Laurier University Press.
- Miller, S. A. (2012). *Theory of Mind: Beyond the preschool years*. New York, NY: Psychology Press.
- Reysen, S., Hall, T., & Puryear, C. (2014). Friends' accuracy and bias in rating group identification. *Current Psychology*, 33(4), 644-654. <https://doi.org/10.1007/s12144-014-9234-5>
- Roberts, K. A. (2002). Ironies of effective teaching: Deep-structure learning and the constructions of the classroom. *Teaching Sociology*, 30(1), 1-25.

Spreng, R. N., & Mar, R. A. (2012). I remember you: A role for memory in social cognition and the functional neuroanatomy of their interaction. *Brain Research, 1428*(5), 43-50. <https://doi.org/10.1016/j.brainres.2010.12.024>

Thompson, B. (2017). *Teaching with tenderness: Toward an embodied practice*. Urbana, IL: University of Illinois Press.

Zorn, D. & Boler, M. (2007). Rethinking emotions and educational leadership. *International Journal of Leadership in Education, 10*(2), 137–151. <https://doi.org/10.1080/13603120601174345>

Zunshine, L. (2010). Lying bodies of the Enlightenment: Theory of Mind and cultural historicism. In L. Zunshine (Ed.), *Introduction to cognitive cultural studies* (pp. 115-133) Baltimore, MD: Johns Hopkins University Press.

## APPENDIX: REFLECTION ON DIFFERENT ASPECTS OF THEORY OF MIND/ING

1. When might students and instructors “misread” each other during class? Why might this happen?
2. How might instructors or students use Theory of Mind in the classroom to help facilitate discussion?
3. In what other ways might using Theory of Mind in the classroom help improve learning?
4. How easy do you think it would be for students to understand the concept of Theory of Mind?

0	1	2	3	4	5	6
not at all		somewhat		quite		very

5. How often do you think instructors misinterpret what students are thinking about in class?

0	1	2	3	4	5	6
not at all		somewhat		quite		very

6. How often do you think students misinterpret what instructors are thinking about in class?

0	1	2	3	4	5	6
not at all		somewhat		quite		very

7. How often do you “hold back” what you are thinking in class?

0	1	2	3	4	5	6
not at all		somewhat		quite		very

We sometimes use Theory of Mind to “check in” on our perceptions of students during class discussion. For example, we might say “our Theory of Mind is telling us that you think this reading was too hard” or “our Theory of Mind is telling us that you are bored.” We have also considered encouraging students to use Theory of Mind to talk about what they might be thinking that they are not saying out loud. For example, “my Theory of Mind is telling me that you think I didn’t get this” or “my Theory of Mind is

telling me that you don't think we are doing well at class discussion." Imagine if we made it a point to use Theory of Mind in this way in the classroom; that anyone in our class could check in on whether they are "right" about what they are thinking someone else is thinking during conversation or review? Answer the following questions keeping this use of Theory of Mind "in mind."

8. To what extent would referencing Theory of Mind help increase the authenticity of class discussion?

0                      1                      2                      3                      4                      5                      6  
 not at all                      somewhat                      quite                      very

9. To what extent would referencing Theory of Mind help increase student engagement in class?

0                      1                      2                      3                      4                      5                      6  
 not at all                      somewhat                      quite                      very

10. To what extent would referencing Theory of Mind increase a student's likelihood to participate in class discussion?

0                      1                      2                      3                      4                      5                      6  
 not at all                      somewhat                      quite                      very

11. Overall, how helpful do you think being able to refer to one's Theory of Mind would be in facilitating discussion in class?

0                      1                      2                      3                      4                      5                      6  
 not at all                      somewhat                      quite                      very



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