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## Helping High School Students Read Like Experts: Affective Evaluation, Salience, and Literary Interpretation

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This study explored whether a month-long instructional intervention in affective evaluation can help struggling high school readers to engage in literary interpretation in ways similar to expert readers' practices. We compared pre- and post-intervention think-aloud protocols from five high school students as they read a literary short story with the protocols from five experienced English teachers for the same story. After the intervention, student readers attended more frequently to story details that expert readers also found salient to interpretation. Students also made interpretive moves similar to those made by experts, such as inferences about character goals, interpretation of potential symbols, and attention to patterns and juxtapositions in the text. Further, students' focus on interpretively salient details influenced their thematic inferences. These findings suggest that the recruitment of everyday, affect-based practices can help novice readers develop more "expert-like" literary schemata and construct more meaningful interpretations of a literary text.

A primary goal of English Language Arts teachers is to guide their students toward independence and expertise in literary interpretation, not just so students can understand symbols, imagery, or other literary devices, but also so they can appreciate the power of language, empathize with human plights, and engage the range of worldviews suggested in literary texts (Mar & Oatley, 2008; Scholes, 1985; Zunshine, 2006). Yet many students are inexperienced literary readers who struggle when asked to move beyond literal sense-making. Teaching literary interpretation remains challenging and sometimes frustrating, and teachers often resort to lecture or interpretive strong-arming in their attempts to help novice literary readers engage in interpretive sense-making as experienced readers do (Agee, 2000; Hynds, 1989; Langer, 2001; Nystrand & Gamoran, 1991), particularly in lower tracked classrooms (Applebee, Langer, Nystrand, & Gamoran, 2003; Watanabe, 2008).

As with many types of skill acquisition, part of the challenge of interpretive sense-making arises from students' lack of experience with the forms and norms of literary texts.<sup>1</sup> Novice readers may lack the "rich stock of schemata" (Peskin, 1998, p. 243) used by experienced readers when attending to a text's structure and language during the construction of thematic interpretations. Novices are more likely to approach literary reading from what Vipond and Hunt (1984) call an *information-driven* stance, reading a literary text to glean facts at the local level, such as names, places, or general actions (Janssen, Braaksma, Rijlaarsdam, & van den Bergh, 2012). In contrast, experienced readers are more likely to approach literary reading from a "point-driven" or dialogic stance, where they expect to engage overarching ideas, arguments, or values and beliefs as they read (Hunt, 1996). Similarly, expert readers' literary schemata may include an expectation of an implied author who creates purposeful effects (Booth, 1983). In one study examining the interpretive choices of expert and novice readers, participants read an excerpt from Alice Walker's novel *The Color Purple* (Graves & Frederiksen, 1991). When encountering Walker's choice of nontraditional, stream of consciousness narration, expert readers assumed Walker was "of course" being "deliberately elliptical and . . . telegraphic" (p. 19). In contrast, novice readers simply found the passage to be strange and made few references to the author throughout the study.

Experts' literary schemata may also include the expectation that authors—purposefully or not—make frequent use of common literary moves, sometimes called "rules of notice" (Rabinowitz, 1985, 1987) or "rules of significance" (Culler, 2002) that draw attention to particular elements of their texts. The premise of such rules is that some words, phrases, and features in texts are more salient than others as part of literary meaning-making. For example, an unusual character name (e.g., Rowling's Severus Snape or Morrison's Cholly Breedlove) or a repeated image (Gatsby's green light, or the railroad in *One Hundred Years of Solitude*) might act as a salient pointer to multiple layers of meaning. Readers with more literary experience are more likely to be attuned to such authorial moves, which can include metaphors, juxtapositions of imagery, sudden shifts in time, or other ruptures in conventional language or storytelling (Booth, 1983; Culler, 2002; Rabinowitz, 1987). A quick look at critical writing on *The Color Purple* confirms that experienced readers do attend to such rules of notice; for example, they write about the significance of the title, Walker's references to color, motifs of cloth and sewing, and unusual character names (Lupton, 1986; Tavormina, 1986; Tucker, 1988). For these readers, such authorial choices likely "just pop off the page" (Peskin, 1998, p. 248).

Experienced readers are also able to identify or construct connections between authorial moves and then build on those connections to develop their interpretations of authorial worldviews (Graves, 1996; Kurtz & Schober, 2001; Peskin, 1998; Zeitz, 1994). In addition, experts may follow loose interpretive scripts in which they draw on their own experiences and knowledge to compare their world with the world of the text, an act that in turn informs their construction of thematic inferences (Beach, 2000; Semino, 1995).

Importantly, expert readings are not definitive, given that there are no fixed sets of important details in any literary text (Gee, 2001; Hull & Rose, 1990; Rabinowitz & Smith, 1998; Rosenblatt, 1982). However, researchers and teachers alike see that novice readers are less adept at noticing

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<sup>1</sup>Literary texts are defined here as texts in which structure, imagery, or figurative language offer potential for "duplication of code," or a reader's transformation or re-interpretation of conventional images, feelings, or concepts (Miall & Kuiken, 1999; Scholes, 1977). Literary texts here include songs, poems, short stories, and novels.

potentially salient features of literary texts. Novice readers are less likely to identify details that are relevant to authorial attitudes or themes and less likely to notice literary patterns (Graves & Frederiksen, 1996; Zeitz, 1994). They generally focus on one perspective in a story, as opposed to seeing the possibility of multiple points of view, and they commonly appear to focus on character without awareness of authorial intent (Vipond & Hunt, 1984). As such, novice readers are less likely to engage with or learn from the world of literary texts (Langer, 1990; Mar, Oatley, & Peterson, 2009; Zunshine, 2006).

Some research, though, suggests that novice readers can draw from at least a nascent set of schemata for literary reading, automatically attending to certain types of literary details that experts focus upon more strategically. One important driver of such attention may be readers' affective responses to the content and structure of a literary text. For example, nonexpert readers are more likely to enjoy stories with a conventional conflict-resolution structure (Brewer & Lichtenstein, 1982) and report more frequent emotional responses when reading structurally important sections of such stories, such as the beginning or climax (Goetz et al., 1992). Work in narrative theory suggests that violations of expectations of narrative plot or diction may also be striking to nonexpert literary readers, much like any violation of expectation can be surprising or especially noticeable (Bruner, 1991; Culler, 2002; Labov & Waletzky, 1997). For instance, the last lines of a cliffhanger story that does not come to a resolution may act as a violation of readers' expectations of typical story structure, eliciting a stronger emotional response and therefore becoming more salient in a reader's eyes.

Related research has highlighted the relationships between readers' affective responses and the language of literary texts. Empirical work in literary processing suggests that many of the elements of a text that might typically be called literary, such as metaphors or nontraditional syntax, are often affect-laden or generate emotional responses more than other elements of those texts, even for readers who are not experts in literature. For example, a series of studies with undergraduates in teacher education classes showed that those readers responded emotionally to concrete imagery more often than to language that was not image-laden (Goetz, Sadoski, Stowe, Fettsco, & Kemp, 1993; Sadoski, Goetz, & Kangiser, 1988). Other studies showed that readers, again undergraduates who were not literary experts, found figurative language in a poem or short story to be particularly striking and emotionally evocative (Dijkstra, Zwaan, Graesser, & Magliano, 1995; Miall & Kuiken, 1994b; van Peer, Hakemulder, & Zyngier, 2007). Similarly, a quasi-experimental think-aloud study found that college students who spoke about their thoughts and feelings while reading poems identified more literary devices than students asked only to share their thoughts about those poems (Eva-Wood, 2004b).

One explanation for the frequency of readers' affect-laden and interpretive responses to foregrounding devices such as figurative language or unusual imagery is that such language acts to "defamiliarize," or "make strange" images or concepts that had previously been part of the everyday (Shklovsky, 1965). In their defamiliarization theory, Miall and Kuiken (1994a, 1994b, 1998) suggest that readers attend more carefully to such language because it is unusual and then attempt to "refamiliarize" this language through "feeling-guided formation of non-prototypic conceptions" of that language (Miall & Kuiken, 1994a, p. 43). According to this account, readers of the Harry Potter series might experience a more affect-laden response to a name like Severus Snape, which flouts the ordinary conventions of naming and therefore must be made sense of in unconventional ways. Readers would then draw from their affective responses to understand the name, perhaps exploring the effects of its sounds or associations.

Much of the research referenced above has explored the connection between affective response and literary elements with an eye toward understanding the qualities of literary texts and literary response. Here, we build on this research, as well as a smaller body of work (Eva-Wood, 2004a, 2004b; Lewis & Ferretti, 2011; Peskin, Allen, & Wells-Jopling, 2010; Zyngier & Fialho, 2010) that explores the implications of making this connection explicit for teachers and students in the literature classroom. Given that even novice readers can spontaneously respond affectively to literary features of a text, strategically directing students' attention to the interpretive implications of their affective responses should be a useful path toward more meaningful literary interpretation.

In previous work, we tested this idea through an instructional intervention in which novice readers—high school students who had average or below-average standardized reading scores and who performed poorly on previous literary interpretation assignments—learned to strategically engage in a process of *affective evaluation* (Levine, 2014; Levine & Horton, 2013). As implemented in those interventions, affective evaluation is a process in which readers learn to:

1. Identify language and events in a text they perceive as especially emotionally evocative or affect-laden;
2. Make subjective evaluations of valence in that language; and
3. Explain their evaluations.

Consider, for example, what happens when students applied this process to a version of the familiar fairy tale “Cinderella,” which reads in part, “Cinderella looked down and found that she was wearing two glittering glass slippers.” Using the affective evaluation heuristic, many students (1) identified the image of “glittering glass slippers” to be more affect-laden than the rest of the words in the sentence, (2) evaluated those words as having a positive effect, and (3) explained that the image seemed positive because it suggested beauty and wealth.

In our previous analyses of pre- and post-intervention written interpretations and oral think-aloud protocols, we showed that novice readers who learned to use affective evaluation moved from mostly literal to mostly interpretive readings of texts, whereas students in a comparison class, where more traditional teaching of literary interpretation took place, remained generally focused on literal readings of texts (Levine, 2014; Levine & Horton, 2013). In the present study, we expand on these findings to examine whether strategic use of affective evaluation guides novice readers' attention specifically to the kinds of textual details that expert readers find salient or that are consistent with the rules of notice to which experts often attend. As we have described, attention to salient details is an important element of experienced readers' practice. If affective evaluation supports novice readers in identifying salient literary details in a way that draws on their personal knowledge and emotional response or helps them develop relevant and meaningful thematic inferences, it can be a doubly useful tool for teachers and students.

Specifically, we explore the following questions:

1. To what degree does novice readers' attention to specific textual details align with that of experts, at both pre- and post-intervention?
2. When responding to highly salient details, are novice readers more likely to attend to characterization, symbolism, or other common literary conventions?
3. To what extent do responses to salient details seem to contribute to readers' overall thematic inferences?

To address these questions, we asked five experienced high school literature teachers to think aloud while reading an excerpt from the novel *Prisoner's Dilemma* (Powers, 1996). We then compared these expert responses to the pre- and post-intervention think-aloud protocols of five high school novice readers, all participants in the affective evaluation intervention study described earlier, as they read the same excerpt. In these comparisons, we considered the story details that experts and novices find salient, the types of interpretations made by each group, and the relationship between the details a reader finds salient and his or her thematic inferences about the story.

It is important to note that in comparing expert and novice readings, we do not seek to reify a specific set of “better” responses to a literary text. Instead, we hope to create specific instantiations of more general models of literary reading and noticing (Graves, 1996; Van Rees, 1989). For example, the rules of notice and other models of expertise in literary reading might predict that experienced readers would find the title of *Prisoner's Dilemma* to be especially salient to interpretation, since titles hold privileged positions in a text and often frontload thematic questions or conclusions. Likewise, these models suggest that expert readers would attend to figurative language, repeated imagery, or shifts in mood, structure, or style.

Rather than applying such models directly to *Prisoner's Dilemma* and deciding for ourselves which lines were significant or followed rules of notice, we used the think-aloud responses of the five expert readers as an *in vivo* instantiation of the models. We assumed that these experienced teachers of English would readily access and put into practice modes of expert reading that closely reflect more formal models of interpretation. Our general interest, then, is whether novice readers would display similar patterns of attention to the text and modes of interpretation after having been taught to engage in affective evaluation.

## METHOD

### Participants

The affective evaluation intervention took place at a large urban public high school in the Midwest. At the time of the intervention, 86% of the student body was from low-income households. The majority (80%) of students in the school were Latino. About 10% were African American, and about 10% were Asian or Caucasian. About 30% of the students met state reading standards (Illinois State Board of Education, 2012).

### *Classroom Teacher and Students*

A teacher who was already planning an instructional unit on literary interpretation for her Senior English class was selected to participate in the affective evaluation intervention. The teacher was a White woman, as was the largest minority of teachers in the high school's English department. The teacher was paid a small stipend to participate.

The Senior English class of 28 12th-grade students was untracked, meaning the curricula were not advanced or accelerated. Earlier in the year, the students' reading skills had been measured with a school-administered test, which included the widely used ACT reading exam. The reading

scores on the standardized test were divided into four categories: “warning,” “below standards,” “meets standards,” and “exceeds standards.” The average of the classroom student test scores fell on the border between “below standards” and “meets standards.” From the class of 28, six students were identified by the teacher as representative of their class both in terms of reading scores and grades. These six students were asked to participate in clinical think-aloud readings of a short story both before and after the instructional intervention. Unfortunately, before the end of the study, one student dropped out of school, leaving five students in the sample. Three of these students scored in the “meets standards” range on the standardized reading test, and two scored “below standards.”

### *Expert Readers*

Five public high school English language arts teachers were asked to serve as the study’s expert literary readers. In this case, an *expert reader* was defined as a teacher who had more than five years’ experience teaching literary interpretation in the classroom, had majored in English in college, and/or had earned a master’s degree in the teaching of English. The experts recruited for this study included four women and one man. One teacher was African American, three were Caucasian, and one was Latina. Three of the participating expert readers worked at the school in which the study took place, and two worked in area public high schools. None had previously read the text used in this study.

## Procedure and Materials

### *Training of Participating Teacher*

Before the start of the intervention, the first author introduced and practiced the affective evaluation strategy with the participating classroom teacher for a total of 6 hours over a period of 2 weeks. The teacher was also introduced to Rabinowitz’s (1987) ideas about rules of notice and worked with the first author to identify common authorial moves in some canonical literary texts.

### *Instructional Intervention*

The intervention lasted 4.5 weeks, for a total of 18 instructional days. During this time, the Senior English class was introduced to and practiced affective evaluation as they read, discussed, and wrote about a range of popular and canonical literary texts, all of which were loosely connected to the topics of gender and “coming-of-age.”

At the start the intervention, the teacher introduced the affective evaluation strategy with a demonstration of how students already engaged in affect-based evaluation of texts they encountered in everyday life. The students talked briefly about ways that they interpreted their parents’ speeches and judged them to have positive or negative impact based on diction, gesture, and expression, or ways that they evaluated a city block as safe or unsafe based on details like occupied homes, streetlights, or cleanliness.

Then the teacher had the students practice the steps of affective evaluation explicitly by introducing a series of simple and familiar texts and asking students to use affective evaluation to evaluate the affective impact of those texts. For instance, students evaluated the effects of celebrity stage names, such as that of actor Jamie Foxx. They first identified the word “Foxx” to be more affect-laden than the word “Jamie,” and then evaluated their perception of the affective impact of the name, with many students deciding that “Foxx” communicated both positive and negative valence. Finally, students explained their evaluations by saying that “Foxx” suggested cleverness and sexiness, as well as cunning or deceit.

In a subsequent exercise, students used affective evaluation to create newspaper headlines describing a fight between citizens and police, choosing from a range of words to create headlines of different valence and effect. For example, one group created this headline: “Officer Stops Hoodlum During Riot.” They explained that their intent was to portray the police positively with words like “officer,” which suggested authority and honor. Another group’s headline: “Cop Suppresses Activist During Gathering” was designed to portray the citizen positively, using words like “suppresses” to suggest injustice and entrapment.

As the unit progressed, the teacher regularly asked students to articulate the process of affective evaluation. For example, she asked the students, “If you want to make some interpretations of a text, what’s one way to do it?” During class discussions, the class began to use the “thumbs up” and “thumbs down” signs to indicate positive or negative evaluations, and over the course of the unit the teacher reminded them to “read with your thumbs.” Students practiced affective evaluation with a series of texts, beginning with simple and familiar texts, such as a version of “Cinderella,” and progressing to more complex poems and short stories by authors like Sandra Cisneros (1991), Richard Wright (2008), and Junot Diaz (1997).

When students read these texts, either silently or out loud, they were reminded to mark language that they felt was particularly affect-laden, to appraise its valence, and then to write a few notes to explain or justify their appraisal. Students often discussed their choices of affect-laden words, and sometimes argued about whether a particular word or phrase was, in context, positive, negative, or both. The teacher encouraged this type of discussion, noting that although interpretations might differ, it was still useful for students to direct their attention to authorial choices.

When the students had finished reading and annotating stories in this way, they were taught to make an appraisal of the text as a whole—that is, they evaluated the overall impact of the text as positive, negative, or both and then explained why. During one set of lessons, for instance, students practiced affective evaluation of “Linoleum Roses,” a vignette from *The House on Mango Street* by Sandra Cisneros (1991). Students found the text overwhelmingly negative in impact, explaining that the story ended with a sense of entrapment and isolation. Importantly, the teacher pushed students to distinguish between the feelings they might have about the process of reading (e.g., frustration or boredom) and the evaluations they might generate concerning the affective impact of authorial choices or events in a story world. The latter process, she explained, would help students identify possible routes to interpretation.

The intervention also included brief instruction in several other aspects of literary reading. First, students were taught to look for connections or patterns in the language they had marked as affectively loaded. For example, students might discover that many of the lines they had identified as negative were connected to concrete descriptions of the setting of Cisneros’ story and were likewise connected to the feeling of being trapped. Second, students were introduced to formal names for some of the authorial moves they identified in texts, such as motif, imagery,

and symbol. Students were also given a “cheat sheet” of open-ended sentence stems designed to support them in articulating their affect-based observations and interpretations, such as, “The author uses an image of \_\_\_\_\_ to create a sense of \_\_\_\_\_.” For example, when writing about Cisneros’ “Linoleum Roses,” students might create a sentence such as “The author uses an image of walls and doors to create a sense of being trapped.” At the culmination of the instructional unit, students wrote two essays about the effects of literary devices in prose fiction. The first argument was written in small groups and the second individually.

### *Think-Aloud Text*

A one-page excerpt from the novel *Prisoner’s Dilemma* (Powers, 1996) was used to elicit both pre- and post-intervention reading protocols from students, as well as a separate set of protocols from the expert readers. The International Baccalaureate program had previously excerpted the story for use in an English literature exam, and the excerpt stands on its own as a short story (see the Appendix for the text). In the story, a father and his children lie in their backyard and look at the stars on a cold night. The father points out constellations to his children, using a weak flashlight that “goes only a few feet before it is swallowed up in the general black.” While he is very good at quizzing his children about the location of Ursa Major, he seems unable to give the children the warmth and fatherly love they need. The story ends as the children notice that the father has “thought himself into another place. He is no longer warm.”

With the permission of the author, we altered the story slightly for vocabulary and length. This altered version of the story measured at the 7th grade reading level, with a Flesch-Kincaid reading ease score of 70; it was also judged accessible by the participating teacher. The story was unfamiliar to the students and was not discussed during the intervention unit. The expert readers were also unfamiliar with the excerpt or the author.

### *Think-Aloud Interviews*

The interviews were semi-structured and lasted from 25 to 30 minutes. Each student in the sample was interviewed independently, once before the instructional intervention and again immediately after the unit was completed. The first author conducted these interviews in a relatively quiet hallway outside the classroom. The five English teachers who acted as expert readers were interviewed independently at their desks.

All readers learned about the task in the same way. The interviewer told them that they would be reading a piece of fiction—a story—out loud, and as they read, they should use any strategies they knew to make sense of the text and to think about its themes, interpretations, or big ideas. They were reminded that “theme” could be defined as their ideas about a story’s worldviews, big ideas, and underlying meanings about society and human nature (Lehr, 1988).

The interviewer modeled a think-aloud using an algebra problem as an example. She showed the readers a piece of paper with the algebra problem on it and thought aloud as she considered the solution, occasionally writing on the paper as she did so. The readers then received a copy of the one-page typed story and were instructed to say out loud everything they were thinking as they read the story or wrote notes about it. The interviewer also told students that at the end of

the think-aloud exercise, they would be asked to first summarize the text and then talk about its themes. This was done to ensure that readers saw a distinction between literal and interpretive sense-making.

The interviewer gave no instructions about when to comment in order to minimize interference with their thought processes or attention to particular details. However, during the interview, if a participant read more than a paragraph in silence, he or she was encouraged to think out loud (Ericsson & Simon, 1984). If readers seemed uncertain about or asked the meaning of a word, the interviewer defined that word for them. If readers indicated attention to a proposition by pausing, annotating, or saying something like “hmm” without commenting further, the interviewer encouraged them to “use their strategies.” At the end of the think-aloud, readers received an additional prompt asking them to briefly summarize what the text was about and to articulate their ideas about the themes of the text. Finally, the interviewer asked readers to identify the five words or phrases that most contributed to their thematic interpretations of the text. Readers also explained the reasons for their word selections.

## ANALYSIS AND RESULTS

All think-aloud interviews were recorded and fully transcribed for analysis. Our presentation of the study results are organized around the three research questions we posed in the introduction. We will consider these questions both quantitatively and qualitatively.

### Q1: To What Degree Does Novice Readers' Attention to Specific Textual Details Align With That of Experts, at Both Pre- and Post-Intervention?

As discussed earlier, literary expertise involves, among other things, the identification of textual details that seem especially relevant to that text's meaning (Rabinowitz, 1987; Todorov, 1977), details that experts feel “demand a share” of their attention (Price, 1983, p. 36). Our first goal, then, was to identify those parts of the story that the expert readers deemed especially salient or worthy of comment. First, we divided *Prisoner's Dilemma* into 61 separate “propositions” (shown in the Appendix). Typically, these propositions were independent clauses, although in some cases, longer sentences were separated into independent and dependent clauses. The title and the byline of the story were also included as separate propositions. To arrive at an operational definition of interpretive salience, we identified those propositions that the majority of experts found important or interesting enough to comment on as well as those propositions that the majority of experts did not comment upon. Again, our goal was to use the consensus among the experts as an instantiation of more general models of interpretive salience.

Each proposition could receive comments from zero to five experts. As a reflection of expert consensus, we coded propositions that received comments from four or five experts as *high salience*, propositions that received comments from none or only one expert as *low salience*, and propositions that received comments from two or three experts as *medium salience*. Note that everything a reader said in response to a particular proposition was coded with respect only to that proposition. Thus, if a reader chose to comment on Proposition 10, but included in that comment a reference to Proposition 5, the comment was still marked only as a response

to Proposition 10. We made this choice to capture more clearly the point at which story details actually motivated a reader to make a response, even if that response integrated information from several points in the story. Using this procedure, we identified 31 low salience propositions and 16 high salience propositions (with the remainder being medium salience). These consensus values for each proposition are indicated in the Appendix along with the short story text.

With this operational definition of salience in hand, we then examined the degree to which students followed similar patterns of responding to high salience and low salience propositions, both before and after the affective evaluation intervention. Specifically, we coded as a “hit” each instance in which a given student commented on a high salience proposition as well as each instance in which a student refrained from commenting upon a low salience proposition. For example, four out of five experts commented on the title of *Prisoner’s Dilemma*, making the title a high salience proposition. If a novice reader also commented on the title, then that response was coded as a hit. Likewise, no experts responded to Proposition 4 in the text. If a novice also did not respond to this proposition, then this was coded as a hit as well. Note that this particular coding scheme is agnostic about the content of readers’ comments and about the valence of possible evaluations. Table 1 reports the average proportions of propositions coded as hits in this manner for each proposition type and think-aloud session. Because the medium salience propositions did not represent a clear consensus of the experts, we did not include them in this analysis.

Given the categorical nature of this measure, we analyzed these data using logistic mixed effects regression (Baayen, Davidson, & Bates, 2008) with proposition salience (high; low) and think-aloud session (pre; post), and their interaction as fixed effects, and both students and propositions as random effects. The dependent measure was the odds of producing a hit (a comment for high salience propositions or no comment for low salience propositions). This model revealed a significant effect of proposition salience ( $b = -1.70, SE = 0.76, p < .03$ ), with a greater likelihood of hits for low salience propositions ( $M = 0.85; SD = 0.35$ ) than for high salience propositions ( $M = 0.61; SD = 0.49$ ). Also, though there was no main effect of session ( $b = 0.15, SE = 0.38, p = .69$ ), the proposition salience by session interaction was significant ( $b = 1.57, SE = 0.82, p < .05$ ). To follow up this interaction, we created a pair of additional models that examined each proposition type separately. These models revealed a significant effect of session for high salience propositions ( $b = 1.23, SE = 0.59, p < .04$ ), but no effect of session for low salience propositions ( $b = -0.48, SE = 0.37, p = .20$ ).

Thus, the affective evaluation intervention had more of an effect on novice readers’ attention to high salience propositions than low salience propositions. While students generally did not comment on low salience propositions as part of both their pre- and post-intervention think-aloud protocols, their tendency to comment upon high salience propositions increased significantly after the intervention. In other words, the students’ protocols were generally similar to the experts’ protocols in terms of what they did not comment upon, even before the affective evaluation

TABLE 1  
Mean Proportions of Responses Coded as Hits at Pre- and Post-Intervention

<i>Proposition Type</i>	<i>Pre-Intervention</i>	<i>Post-Intervention</i>
High salience (n = 16)	0.48 (0.50)	0.75 (0.44)
Low salience (n = 31)	0.86 (0.35)	0.81 (0.39)

intervention. After the intervention, however, the students' protocols became more similar to the experts' in terms of what they did comment on.

Table 2 illustrates this shift in more detail by showing one novice reader's pre- and post-intervention responses to the propositions in the first paragraph of *Prisoner's Dilemma*. As Table 2 shows, in the pre-intervention session this student attended to high salience propositions twice. Post-intervention, she attended to high salience propositions five times; in fact, in the portion of the text presented here, the student attended to every line to which experts attended.

In keeping with our desire to avoid applying our own readings to the think-aloud text, we will not spend much time examining the nature of the propositions to which readers responded. Obviously, there are many reasons that a line may have "popped off the page" for a reader, even beyond any reasons stated by that reader. However, it is worth noting that at pre-intervention, almost all the high salience propositions to which the novice readers attended were lines that occurred at the ends of paragraphs—lines that hold privileged positions in a text, according to the rules of notice. Post-intervention, students attended not only to each of those last lines in the story, but they also expanded their attention to other high salience propositions occupying privileged positions in the text. For example, none of the students attended to the title of *Prisoner's Dilemma* at pre-intervention, but all five did at post-intervention. Similarly, students at post-intervention were aligned with expert readers in attending to the first line of the story. Further, four experts and four students focused specifically on the word *somewhere* in that line. For example, an expert said, "Beginning with 'somewhere' makes the whole line sound very distant and alone." Likewise, a post-intervention novice reader said, "'Somewhere': that's negative because he doesn't know where he is." Another said, "[The word is] negative, showing kind of like a lost idea, like it's not definite, it's not *here*."

In addition, pre-intervention students tended to respond to propositions that seemed to help them develop—either accurately or inaccurately—a visual or physical model of the action in *Prisoner's Dilemma*. This trend is illustrated in the above student's response to the low salience proposition "out in the dark backyard," a detail that prompted the student to say, "It makes me think of a farm." Other pre-intervention responses similarly focused on low salience propositions that seemed to help students fill out situation models of the text. Similarly, novices at pre-intervention were only sometimes drawn to figurative language, such as the high salience proposition comparing children and spare handkerchiefs. Post-intervention, however, novices attended more frequently to high salience propositions that included such language.

In general, then, following instruction in affective evaluation, students became more likely to comment upon propositions in the text that our expert readers also found worthy of comment. Next, we address our second question of interest, concerning the kinds of responses that readers made to particular propositions.

## Q2: When Experts or Novices Find a Particular Detail to Be Salient, What Is the Nature of Their Responses?

To explore this question, we wanted to examine the content of what readers said in their think-aloud protocols in response to specific moments in the text. For example, we were interested in whether readers explicitly or implicitly referenced rules of notice in their responses, or whether readers commented upon the mood or symbolism evoked by particular words or phrases in

TABLE 2  
One Student's Responses to the First 12 Propositions of *Prisoner's Dilemma*

<i>Proposition</i>	<i>Pre-Intervention</i>	<i>Think-Aloud Responses</i>	<i>Post-Intervention</i>
1. <b><i>Prisoner's Dilemma</i></b>			"Hmm ... lonely."
2. Richard Powers, 1996			
3. <b>Somewhere, my father is teaching us the names of the constellations.</b>			"Somewhere—this is 'down,' because she doesn't know where."
4. We lie in the cold,			
5. out in the dark backyard,		"Makes me think of a farm."	
6. <b>on our backs against the hard November ground.</b>			"This is down, because it's dark and cold, so it's like lonely and hurtful."
7. <b>We children distribute ourselves over his enormous body like so many spare handkerchiefs.</b>		"I wonder how many kids there are."	"He's being mother-like. The ground is hard, but he lays down so they can lay on him, so they could be ... it's like, chicken-like." <sup>1</sup>
8. He does not feel our weight.			
9. My father points a cheap flashlight at the holes in the enclosing black shell.			
10. We lie on the frozen earth			
11. while all in front of us spreads the illustrated textbook of winter sky.			"So they're there and they're trying to find an answer to something."
12. <b>The six-volt beam creates the one weak warm spot in the entire world.</b>		"Now I'm confused; what did I just read?"	"This is up. She sees that things are okay even when they're not, because it creates the one weak warm spot ... if it's a warm spot, it's something you like, and then she's saying in the entire world, so then the world's not nice, but when she sees it she feels warm, and when you feel warm it's like ... a mom."

*Note.* High salience propositions are in boldface.

<sup>1</sup>We surmise that when this student used the term "chicken-like," she may have been thinking about a mother hen, but we cannot be sure.

the text. To this end, we developed a protocol coding scheme through an open-ended process that involved repeated passes through the data to categorize responses. This was followed by a system of constant comparison whereby we constructed common labels for responses that seemed closely related (Andringa, 1990). In addition, since one of the guiding questions of this study concerns the relationship between affect and salience, we established a priori a code for responses related to affect, including readers' emotional responses to the text, their evaluation of characters' emotions, or their interpretation of tone or mood of the text. Altogether, this procedure resulted in six primary coding categories, including a *Character* category, which included comments about character personalities, goals, or relationships, and a *Rules of Notice* category, which included explicit reference to repetition, juxtaposition, and other rules of notice. The codes are summarized in Table 3, along with examples of each.

### *Comparing Novice and Expert Responses*

We then used these coding categories to characterize readers' responses to individual propositions. In many cases, the contents of a given response were coded as belonging to more than one category. For instance, in one proposition in *Prisoner's Dilemma*, the narrator silently questions his father, wondering, "What happens to students who fail?" In response to this proposition, one expert said, "Here are the questions again. This last question establishes very clearly the relationship between father and children—he's a teacher, not a father, and they're students, not children." This response was coded as expressing Rules of Notice because the reader explicitly commented on a structural pattern, in this case, the repetition of the children's questions. It was also coded in the Character category because the reader's comment focused on the relationship between the father and children.

The first author coded all 310 responses—novice and expert pre- and post-intervention—, and a second independent rater also coded half of the responses. Cohen's kappa ranged from .82 to .95, with agreement highest in the Affect category and lowest in the Rules of Notice category. Because agreement levels were high, we used the first author's original ratings as our data set.

Table 4 presents the average proportions of think-aloud protocol responses coded as belonging to each of the six coding categories, calculated separately for the students' pre- and post-intervention protocols as well as the protocols from experts. Note that the sum of each set of proportions is greater than 1.0 because a given response could be coded as having content relevant to more than one category.

### *Pre-Intervention Novices*

In general, these proportions reveal that, prior to the affective evaluation intervention, the novice readers were mostly (78% of responses) commenting on or summarizing literal details of the story, and occasionally (30% of responses) making observations about the story characters. Evidence for other kinds of interpretive activity—in particular, references to affect, symbolic interpretation, and comments relevant to rules of notice—was sparse.

TABLE 3  
Protocol Response Coding Categories, with Definitions and Examples

<i>Coding Category</i>	<i>Definition</i>	<i>Example</i>
Affect	Any explicit reference to valence, affect, mood, or emotion, either in readers' personal responses, or in their evaluations of character emotions, affective impact of story events, or other affective evaluations.	"This is the part where the story shifts from positive to negative." "The narrator seems really desperate and sad."
Character	Reader makes an inference about a character's personality, goals, or relationship with other characters.	"The father seems to mean well. He wants the best for his children."
Symbolic	Reader constructs or derives metaphorical or symbolic meaning, or constructs abstract associations in response to concrete image.	"All these domestic details create a sense of warmth and protection."
Rules of notice	Reader explicitly comments on authorial moves such as repetition of types of details, unusual details or syntax, or words that "stand out."	"Okay, this is the third time we've seen reference to cold."
Literal	Reader may or may not refer to author. Summary of or question about plot, physical actions of characters.	"Oh, they are outside under the stars."
Personal response	Drawing on personal memories or knowledge in response to text.	"This reminds me of how I used to beg my father to quiz me."

TABLE 4  
Mean Proportions of Students' and Experts' Responses for Each Coding Category

Coding Category	Students		Experts
	Pre-Intervention	Post-Intervention	
Affect	0.06(0.10)	0.73(0.24)	0.41(0.10)
Character	0.30(0.22)	0.52(0.07)	0.60(0.18)
Symbolic	0.02(0.04)	0.54(0.14)	0.49(0.17)
Rules of notice	0.06(0.10)	0.15(0.12)	0.64(0.09)
Literal	0.78(0.22)	0.21(0.19)	0.27(0.18)
Personal response	0.11(0.19)	0.09(0.06)	0.23(0.15)

### *Post-Intervention Novices*

Post-intervention, the novice readers' protocols revealed a much broader range of interpretive activities. In particular, the proportion of responses focusing on literal details was much smaller after the intervention (21% of responses), while the proportion of responses commenting on affective aspects of the story became quite substantial (73% of responses). This latter result strongly indicates that students were successful in using the newly learned affective evaluation heuristic to guide their responses to this short story. The students' post-intervention protocols also frequently included comments about the story characters and their relationships (52% of responses) as well as comments involving identification and interpretation of symbolic or metaphoric aspects of the story (54% of responses). To a lesser degree, novices also occasionally made comments demonstrating sensitivity to literary rules of notice (15% of responses). Relatively few of the students' pre- and post-intervention protocol responses were coded as containing personal or idiosyncratic reactions to the story (11% and 9% of responses, respectively). This lack of personal response is consistent with research suggesting that novices respond to literature in a less free-flowing way than experts (Earthman, 1992; Peskin, 1998). However, the absence of personal responses may also derive from the fact that the content and themes of *Prisoner's Dilemma*, an adult narrator's look back on a cold and distant, father-son relationship, did not resonate with high school-age readers.

### *Experts*

As might be expected, the experts spontaneously displayed a range of interpretive responses. Interestingly, the highest proportion of their responses (64%) was coded as relevant to rules of notice. The experts also frequently discussed characters' relationships or motivations (61% of responses), commented on particular symbolic devices and meanings (49% of responses), and made reference to affect or mood in their comments (41% of responses). Somewhat less frequently, they also provided some degree of literal summary of story details (27% of responses) and invoked personal reactions or memories to the story (23% of responses).

To analyze whether the content of the comments in novice readers' think-aloud protocols changed from pre- to post-intervention and also how novice readers' post-intervention protocols compared to those of the experts, we carried out a set of logistic mixed effect regression

models with Protocol Group as a single fixed effect having three levels: Novice/Pre-intervention, Novice/Post-intervention, and Expert. Taking Novice/Post-intervention as the reference level, we constructed two contrasts: one comparing Novice/Pre-intervention to Novice/Post-intervention protocols and another comparing Novice/Post-intervention to Expert protocols. The first of these contrasts examines the change in students' protocol responses before and after the intervention, while the second contrast compares the students' post-intervention responses to the experts' responses. All models included random intercepts for both students and propositions. We fit a separate model for each coding category, using as the dependent measure the odds that a given response was coded as including information relevant to that coding category or not. The results of these models are presented in Table 5.

First, in terms of the contrasts between novices' pre- and post-intervention responses, these models confirm that the novice readers were significantly more likely to comment on affective content, story characters, and symbolic meanings after the affective evaluation intervention than before the intervention. There were also significantly less likely to comment on literal details of the story following the intervention. They were only marginally more likely ( $p = .08$ ) to note aspects of the text relevant to rules of notice. There was no change in the degree to which the novice readers displayed personal associations in their responses.

Then, considering the contrast between novice readers' post-intervention protocols and experts' responses, the models confirm that experts commented on affective aspects of the story significantly less often than the novice readers and paid attention to literary rules of notice significantly more often than the novices. The experts were also significantly more likely to include

TABLE 5  
Results of Logistic Mixed Effect Regression Models Examining Response Content Coding

<i>Coding Category</i>	<i>b</i>	<i>SE</i>	<i>Z</i>
<b>Affect</b>			
Novices: Pre- vs. Post-intervention	-3.91	-0.61	-6.37***
Novice/Post-intervention vs. Expert	-1.32	0.45	-2.95**
<b>Character</b>			
Novice: Pre- vs. Post-intervention	-1.46	0.36	-4.00***
Novice/Post-intervention vs. Expert	0.35	0.41	0.84
<b>Symbolic</b>			
Novices: Pre- vs. Post-intervention	-3.35	0.64	-5.22***
Novice/Post-intervention vs. Expert	-0.13	0.37	-0.34
<b>Rules of notice</b>			
Novices: Pre- vs. Post-intervention	-0.95	0.54	-1.75
Novice/Post-intervention vs. Expert	2.37	0.42	5.68***
<b>Literal</b>			
Novices: Pre- vs. Post-intervention	2.79	0.41	6.90***
Novice/Post-intervention vs. Expert	0.38	0.73	0.51
<b>Personal response</b>			
Novices: Pre- vs. Post-intervention	-0.09	0.55	-0.16
Novice/Post-intervention vs. Expert	1.18	0.51	2.30*

Note. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ;  $p < .10$

personal observations in their responses. Interestingly, however, novice readers expressed inferences about the story's characters, constructed symbolic meaning, and commented on literal details of the story at levels similar to the expert readers. Consider, for example, Proposition 7: "We children distribute ourselves over his enormous body like so many spare handkerchiefs." All five experts used this line to build inferences about the relationships between father and children, as when this expert commented:

This simile is strange and specific, and [the word] "spare" has an extra, if-you-need-it quality. [The children] are not even the key handkerchiefs; they're the extra handkerchiefs. So the writer is choosing to characterize the children in a particular way, and that should start clueing us off.

Post-intervention, four students also commented on that line and also constructed inferences about the relationship between father and children. One of the students noted that comparing the children to spare handkerchiefs "could be negative, because you don't really care much for spare handkerchiefs, cause they're always . . . they're reusable."

### *Relationships Between Types of Responses*

We were also interested in whether evaluating the affective impact of particular story details was likely to simultaneously motivate other types of interpretive responses. For example, one question was whether students' and experts' use of affective evaluation, a process that often involves a move from concrete images to abstract associations, would coincide with the construction of symbolic interpretations, where readers connect concrete images or objects with emotions or abstract ideas. We were also interested in other juxtapositions of response types.

To explore these questions, we examined the joint probability that protocol responses were coded as belonging to specific combinations of coding categories. Specifically, we examined five pairs of categories: Affect and Character, Affect and Symbolic, Symbolic and Character, Symbolic and Rules of Notice, and Affect and Rules of Notice. For each proposition in each protocol that prompted a response, we determined, for each of these pairs of coding categories, whether that response was coded as having content related to neither category, one (but not the other) of these categories, or, most importantly, both categories simultaneously. Then, to compute the joint probability of a response including content related to both categories, we divided the count of these simultaneous coding instances by the total number of responses, for each group separately (students pre-intervention, students post-intervention, experts). Table 6 reports these joint probabilities.

As Table 6 indicates, experts' responses coded as including reference to affect were equally likely to also include character analysis, symbolic interpretation, or reference to rules of notice. Similarly, for post-intervention novices, responses were equally likely to include any combination of the three most common types of responses: affect, character inference, and symbolic interpretation. As reported earlier, though, students did not make significant gains in their explicit references to rules of notice; accordingly, there were few instances where students' responses paired rules of notice with other types of interpretation. Finally, students' pre-intervention responses were coded mostly as commenting on surface details of the story; as a result, the joint

TABLE 6  
Joint Probabilities That Responses Included Pairs of Interpretive Categories

<i>Category Combination</i>	<i>Students</i>		<i>Experts</i>
	<i>Pre-Intervention</i>	<i>Post-Intervention</i>	
Affect + Character	0.05(0.10)	0.32(0.13)	0.24(0.14)
Affect + Symbolic	0.01(0.01)	0.37(0.13)	0.24(0.11)
Symbolic + Character	0.01(0.01)	0.30(0.10)	0.29(0.17)
Affect + Rules of notice	0.01(0.01)	0.08(0.06)	0.27(0.09)
Symbolic + Rules of notice	0.01(0.01)	0.08(0.06)	0.30(0.12)

probabilities that their responses would contain two of these other response types were close to zero across the board.

### *Rules of Notice*

Although students did not make many references to rules of notice, it is worth noting the few instances when students' use of affective evaluation did seem to support their attention to structure or authorial moves because such moments shed light on the potential value of affective evaluation as a tool for moving toward expertise. Pre-intervention, only two students made reference to rules of notice in their responses. Both students noted the handkerchief simile, saying, for example, "Is that like a simile there?" and also noted that there was "lots of description" in particular propositions.

Post-intervention, all five students were coded as making at least one reference to rules of notice (17 total references, or 15% of total responses). Four of those responses were similar to those at pre-intervention, where students made comments such as, "Is that a simile or metaphor or something?" and then made no further comment. The other 13 responses included both attention to rules of notice and affective response. These responses are worth noting for several reasons. First, in each of those cases, students also made symbolic interpretations and/or inferences about character. Second, with one exception, all of the propositions to which students responded were high salience. Thus, in these moments, the students were aligned with the experts not only in their attention to these high salience propositions but also in their attention to specific patterns and tensions that the experts found important to interpretation. For example, both post-intervention novices and experts noted the text's juxtaposition of motifs of warmth and cold. Consider this set of responses to Proposition 12, which reads, "The six-volt beam creates the one weak warm spot in the entire world." When reading this line, one expert noted a potential tension: "Is the father cold? Normally I would think about a warm comparison." Another expert commented, "There is some kind of control that the father is bringing to this experience of limitlessness." Post-intervention novices seemed to note the same tensions through the lens of affective evaluation, as shown in this student response: "This is positive—because it's saying like to them their whole world is cold, which means they're sad or something's not right, but at that moment the little light their father created makes it okay." Similarly, another student responded, "I think that could be either positive or negative—cause it's like, a warm spot, but it's the only one there is."

In a few cases, post-intervention novices appeared to use affective evaluation to express explicit awareness of the text's structure, as when this student commented on a line in the middle of the story:

This is where it starts to change from a happy mood to a kind of darker mood, because everything before it is talking about light and how the father is teaching them, but after that the child starts to get panicky and the father leaves. It's a transition of the story from positive to negative.

Students also sometimes identified patterns of imagery or objects based on their similar valence. For example, four experts attended to Proposition 6, which describes the family out in the cold, lying "on our backs against the hard November ground." Three of those experts commented explicitly on the reiteration of the hard and cold imagery and its negative effects (one expert found the imagery to be nostalgic). Likewise, all five post-intervention students noted the pattern. As one student said, "All of these words—cold, dark, hard—are negative." Another student felt that throughout the story, the character of the father was portrayed fairly negatively because he was "mostly compared with cold, so he's like the stern one, like tough love." Again, although there were relatively few of these connections between rules of notice and affective evaluation in the students' responses, the connections seem worth noting because of the way in which the affective heuristic appears to have supported explicit awareness of literary moves or authorial presence.

Now that we have outlined ways in which affective evaluation helped students identify high salience propositions, we next consider the extent to which students found these details important for creating overarching interpretations of the text's themes and worldviews.

### Q3: To What Extent Do Salient Details Contribute to Readers' Overall Thematic Inferences?

If novice readers' attention to key details in literature guides their overall understandings and interpretations of literary texts, it becomes even more important that novice readers receive support in learning to attend to such details. To explore the relationship between readers' attention to details and their overall thematic inferences, we asked all readers to identify five details they thought were most important to the overall themes of *Prisoner's Dilemma* and then to explain their choices.

The excerpt from *Prisoner's Dilemma* used in this study is dense with patterns of figuratively laden language, such as imagery of darkness, cold, stars, and motifs of teaching and learning, so much so that one could argue that the majority of the details in the text are highly salient to thematic interpretation. Therefore, to explore the extent to which readers' choices of salient details might have contributed to their construction of thematic inferences, we focused less on the details readers chose as most salient and more on their explanations for their choices. We looked for connections between their explanations and the language they used in their thematic interpretations. We also examined whether and how these overarching thematic responses incorporated ideas expressed in each reader's think-aloud protocol.

Although the experts' thematic responses were in no way formulaic, all five identified juxtapositions between *dark* and *light* and *cold* and *warm* as most salient to their interpretations. Four

experts identified propositions connected to *distance* and *emptiness*, and four identified language related to teaching and learning as salient to interpretation. All experts explained their choices by connecting the above motifs to emotions of love and loneliness that the children felt in the presence of their father. (Other choices were more idiosyncratic, although still arguably related to the motifs just listed. For example, one expert identified the image of “hot lemon dish soap” as very important, praising the way the detail so expertly represented a mother’s love.) Further, the experts’ thematic inferences reflect a synthesis of their ideas about high salience propositions, as well as an integration of the language of some of their choices of salient details. For example, one expert integrated her ideas about distance, love, and loneliness to create this thematic statement:

Really this has to do with the sadness of distance between people who should be close—the inability, the lack of understanding about how to reach out, what it means to be a kid and feel cold and alone, even among or especially among family.

Another expert said:

The distances between two people can be enormous. And what a child can learn from his parents is kind of ironic, because what a child can learn from his parent—the one who is supposed to nurture him—is that in fact we are essentially alone in the world.

In contrast, the thematic statements of novices prior to the intervention did not integrate their interpretations, perhaps simply because novice readers made only a few interpretations in their pre-intervention protocols. Interestingly, the pre-intervention students still drew on their choices of salient details when they constructed themes; however, those themes were related only superficially to those details. For example, at pre-intervention, all five students indicated that language connected to imagery of the sky, such as *stars* and *universe*, was most important to their interpretations of the text. Several explained that these details were important because, in the words of one student, “The whole story is about the universe, so [the words] have to be important.” Then, students’ thematic statements took up the language of the salient details, so that students constructed themes such as “The sky is the limit.” and “Reach for the stars.”

Post-intervention, students’ selections of salient details still included details related to sky and stars; however, students added a set of details that were not present pre-intervention, and more importantly, students were able to explain their choices of salient details in interpretive terms. In particular, four of the five novices joined the expert readers in identifying words or phrases connected to darkness and cold as most salient to their interpretations. One student explained her choice of the word *cold* by saying, “[It’s important] because I guess she’s trying to get over her father. She feels alone, and cold, and then it’s repeated, three times in the last paragraph, so I guess she feels cold and lonely without her father.”

The students’ thematic statements also were more clearly connected to their interpretive ideas. For instance, one post-intervention student chose the words *cold*, *distance*, *father*, *warmth*, and *dark* as the five details most salient to his interpretation, explaining, for instance, that “everything is described as cold—when her dad wasn’t there it was described as cold . . . like an unwarm feeling . . . somewhere along that line.” These choices were also aligned with other details to which the student attended during his think-aloud; for instance, the student made interpretive responses to six separate images of cold in *Prisoner’s Dilemma*. The student’s thematic statement

incorporated not just the language of the text but the metaphoric concepts he found embedded in that language: “Many texts would have you believe that spending time with your father is positive. On the contrary, this text connotes it [sic] as a bad thing. This is shown through the symbol of the coldness. The narrator describes even quality time as being cold.” (Note that in developing his thematic statement, this student used a sentence stems he had practiced in class. Two other students also made use of sentence stems post-intervention.) Overall, these responses suggest that when using affective evaluation, novice readers behaved more like experts as they identified high salience propositions as important to their thematic understandings, explained their choices in interpretive terms, and then integrated and connected those interpretations to develop thematic inferences.

## DISCUSSION

The goal of this study was to explore the extent to which instruction in an affective evaluation heuristic would prompt novice readers to engage with a literary text in ways similar to the interpretive activities routinely displayed by experts in literary interpretation. To this end, we asked five expert teachers of English literature to engage in a think-aloud protocol while reading a brief short story and compared these expert protocols to the think-aloud protocols from five high school students reading the same short story, obtained both before and after training in the affective evaluation heuristic. In the following section, we will briefly explore why the affective evaluation may have been helpful to novice readers. We also consider some implications for teaching and research, limitations, and possible future work in this area.

Recall our first question of interest: “Q1: To what degree does novice readers’ attention to specific textual details align with that of experts, at both pre- and post-intervention?” Our results showed that, prior to instruction in affective evaluation, students showed relatively little alignment to experts in terms of responding to story propositions that most of the experts felt were worthy of comment. Post-intervention, however, students were highly likely to comment on the same propositions that experts found salient.

These results offer both teachers and researchers some useful information about how readers may differently define “important” or “salient” depending on the types of schemata available to them and how they are asked to read and interpret (Flower & Hayes, 1984). For example, some critical scholars and literary theorists maintain that schools have traditionally stifled or attempted to “manage” students’ emotions, or that literature as taught in school is a tool for eliciting one set of acceptable emotional responses (Eagleton, 1979; Lewis & Tierney, 2011). To the extent that idiosyncratic or experience-based emotional response is discounted, it makes sense that students might approach literary texts from an information-driven or efferent stance.

Similarly, research suggests that despite growth in constructivist and interpretive approaches to literary texts, some teachers and students still read literary texts with a focus on surface features (Hillocks, 2002). We can see this focus in students’ pre-intervention framing of salience, where students found words such as *sky* and *stars* salient because those words resonated with local features of the plot, as this student explained: “[The word] ‘sky’ is important because the characters are always looking at the sky.”

This is not to say that *sky* and *stars* are not important details in *Prisoner’s Dilemma*. Several expert readers found those words to be salient—but did so for a much wider range of reasons.

One saw the details as emblematic of distance between loved ones. Another found the images of the sky relevant because of the way in which they contrasted with the images of the earth: longing versus reality. The experts seemed to draw from more varied and flexible schemata to identify what mattered most to their readings. And at post-intervention, the novice readers also explored *Prisoner's Dilemma* more flexibly, focusing on a set of high salience propositions not only because they were superficially connected to plot or preconceived adage, but also because they created affective impact in a way that led to interpretations and inferences. This kind of flexibility in identifying important parts of a text suggests that novice readers were beginning to understand the process of interpretation in new, more expert-like ways (Jannsen, Braaksma, & Rijlaarsdam, 2005).

In response to our second question of interest, “Q2: When experts or novices find a particular detail to be salient, what is the nature of their responses?” we found that expert readers commented explicitly on rules of notice more than any other type of response (with character inference coming in a close second). There is little doubt that these experts’ interpretations were guided by their identification of patterns, tensions, generally striking language, and lines in privileged positions. Following the affective evaluation intervention, novice readers also attended to lines in privileged positions, to figurative language, and to some degree to patterns and juxtaposition of image or theme. These responses support empirical findings about the relationship between literary language and increased affective response in a range of readers (Miall & Kuiken, 1994b; van Peer et al., 2007). It is also possible that reading through an affect-based lens helped activate novices’ empathy (Zunshine, 2006), which may have led readers to attend more carefully to characters’ thoughts and feelings, just as experts did. Along those same lines, it may be that attention to affective response influenced readers’ awareness of ruptures in plot, as Labov (2006) and Bruner (1991) suggest.

Unsurprisingly, while novices did attend to the same kinds of literary conventions that experts did, the use of affective evaluation did not magically afford students knowledge of literary terms or the meta-level interpretive scripts that might guide them to name such terms. This result suggests that affective evaluation can be used as an interpretive tool on its own and can help students become more sensitive to the kinds of literary conventions and rules of notice to which experts attend, even if they cannot always explicitly label the devices involved. Presumably, learning affective evaluation together with extended instruction concerning rules of notice would expand the range of reading strategies and schemata on which novice readers can draw as they construct their own literary interpretations.

Finally, with respect to our third question of interest, “Q3: To what extent do salient details seem to contribute to readers’ overall thematic inferences?” we found that students’ pre-intervention thematic inferences generally seemed to draw from a bank of prewritten, “happiness-bound” (Squire, 1964) morals or aphorisms such as “The sky is the limit” or “Reach for the stars.” Such statements seemed to respond to surface features of *Prisoner's Dilemma*—and may explain why students found words such as “stars” and “sky” to be salient at pre-intervention—but did not incorporate inference or figurative interpretation. In contrast, after the intervention, the novice readers seemed to take up and to some degree synthesize their responses to high salience propositions from the text as they developed thematic inferences about *Prisoner's Dilemma*. In this way, students read like experts, incorporating their online readings into their overall interpretive conclusions.

As an illustration of this shift, consider this transcript of one student's post-intervention discussion of theme, where she actively tries to connect and synthesize interpretations built from her online, affect-driven reading of the text:

Okay, so it's all bad. It's (*points to title*) the "prisoner's dilemma," because a prisoner is someone like in a cage or whatever you know, like you can't get out. And you look at, like here (*points to her annotation*): Everything is lonely and then there are all these unknown answers. So my theme is going to be something about like . . . [the idea of] "lonely" and then like "not having answers." So I'm trying to figure out how to do that. So like . . . the negative . . . the text condemns . . . a world in which you are lonely and seeking for answers, yet you don't get them.

This kind of response suggests that reading through an affective lens may have supported students' connection and integration of details based on similarity of valence, as suggested in other affect-based studies (de Vega, 1996). Additionally, it may be that using affective evaluation helped readers become aware of their own sympathies for characters, which in turn helped them take on the points of view or goals of those characters (Gerrig & Rapp, 2004; Mar & Oatley, 2008). Some theoretical and empirical work suggests that the success or failure of characters' goals can be bound up in development of thematic inferences (Dyer, 1983; Seifert, Dyer, & Black, 1986); if so, then the novice readers in this study, being more attuned to the positive and negative effects of characters' actions and desires, may have been supported in constructing overall thematic inferences.

Overall, then, these results flesh out and extend our previous work on the utility of affective evaluation for the interpretation of literature (Levine, 2014; Levine & Horton, 2013). Whereas previously we demonstrated that instruction in the affective evaluation heuristic could facilitate more robust thematic interpretations of a literary text by novice readers, the present findings point to more specific ways in which students' post-intervention interpretations reflect and are similar to the interpretive practices routinely exhibited by individuals with a lifetime of experience in attending to theme and meaning in literature. As we have shown, affective evaluation both drew students' attention to salient details within a text and guided them toward related types of interpretive activities, such as attention to character and symbol.

## LIMITATIONS AND FUTURE WORK

We acknowledge several limitations to this work. The sample size in this study was quite small, both in terms of participants and the single text used. It clearly would be useful to design a larger scale study to examine how a broader sample of student readers might respond to diverse kinds of literary language. Also, according to their standardized test scores, students in this study were average or below average readers. For a more complete understanding of the usefulness of affective evaluation as a pedagogical tool, it would be useful to look at the effects of affective evaluation with a group of readers who have a greater range of skills. For example, is affective evaluation most useful for students who are already on the cusp of interpretive independence?

Another limitation is our choice of text, which may not have been as personally relevant to students as it was to the experienced adult readers. As mentioned earlier, the story is told from the point of view of an older narrator looking back at his childhood experiences with his father. The maturity of the voice may have led to a smaller number of personal responses made by

students at both pre- and post-intervention, and/or a smaller number of interpretive responses made spontaneously by students at pre-intervention. In addition, as with all reading, students' prior knowledge or lack of knowledge may have led readers to focus on details that were not interpretively salient but were familiar, such as the reference to "Milky Way," or unfamiliar, such as a reference to "Ursa Major." However, students readily engaged in interpretation of the story after the intervention, which suggests that the characters and ideas of the text were at least somewhat accessible and in fact suggests that texts which otherwise might be less accessible can become more so if students are equipped with appropriate interpretive heuristics.

Relatedly, the fact that students read the story twice could have affected their responses and ability to make interpretive sense of the text. The act of rereading may allow readers to focus more attention on building richer models of a text (Zwaan, Magliano, & Graesser, 1995), and is an important part of constructing literary interpretations. However, in our previous studies (Levine, 2014; Levine & Horton, 2013), comparison groups of students (who received instruction in literary interpretation but did not use affective evaluation) also read the same text before and after instruction but did not exhibit similar increases in interpretive response on their second reading. This suggests that the rereading may not have been a significant factor in the change of responses examined here.

This intervention followed students' use of affective evaluation during a month-long instructional unit, when the strategy was taught as an explicit part of the daily curriculum. An important next step will be to chart any long-term effects of such training. Anecdotally, the participating teacher reported that she and her students continued to use affective evaluation until the end of the school year and that several students' end of year class evaluations included appreciation for "reading with your thumbs." It will be important to more rigorously determine the degree to which students continue to effectively use this heuristic when it is no longer being explicitly referenced in their classroom. In addition, it would be useful to examine the use and influence of affective evaluation on other types of texts, and particularly longer texts, in order to track possible changes in readers' attention as plot and authorial moves evolve over time.

Another useful next step would be to include both concurrent and retrospective comments during a think-aloud. After their first reading and set of online responses, readers could be asked to engage in a meta-level discussion about why they commented when they did. We gained some of this meta-level commentary by asking readers to discuss their choices of five most important details, but a systematic questioning would yield more information about readers' awareness of an implied author, structural features of the text, and personal and world knowledge from which readers draw when focusing on textual details.

## CONCLUSION

One of the fundamental challenges of high school English instruction is helping students engage with literary texts in ways that lead to personally meaningful interpretations and moving students toward independence in interpretive sense-making. The present work builds on recent demonstrations of the effectiveness of leveraging students' everyday practices of affect-based evaluations (Is this good? Is this bad? Why?) and shows that when guided by affective evaluation, novice readers' attention to a text can mirror that of more expert readers in important ways. This kind

of interpretive heuristic appears to be a useful route by which novice readers may move toward expertise in their approaches to and engagement with literary texts.

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## APPENDIX

The Excerpt From *Prisoner's Dilemma* Used in the Think-Aloud Interviews Was Divided Into 61 Separate Propositions for Analysis

<i>Proposition Number</i>	<i>Text of Prisoner's Dilemma</i>	<i>Experts' Consensus Values for Salience</i>
1	<i>Prisoner's Dilemma</i>	high
2	Richard Powers, 1988	low
3	Somewhere, my father is teaching us the names of the constellations.	high
4	We lie in the cold,	low
5	out in the dark backyard,	low
6	on our backs against the hard November ground.	high
7	We children distribute ourselves over his enormous body like so many spare handkerchiefs.	high
8	He does not feel our weight.	med
9	My father points a cheap flashlight at the holes in the enclosing black shell.	med
10	We lie on the frozen earth while all in front of us spreads the illustrated textbook of winter sky.	med
11	The six-volt beam creates the one weak warm spot in the entire world.	high
12	My father is doing what he does best,	low
13	doing the only thing he knew how to do in this life.	low
14	He is quizzing us,	med
15	plaguing his kids with questions.	med
16	Where is the belt of Orion in the constellations?	low
17	What is the English for Ursa Major?	low
18	How big is a magnitude?	low
19	He talks to us only in riddles.	high
20	He points his way with the flashlight,	low
21	although the beam travels only a few feet before it is swallowed up in the general black.	med
22	Still, my father waves the pointer around the sky map as if the light goes all the way out to the stars themselves.	high
23	"There," he says to us, to himself, to the empty night.	med
24	"Up there."	low
25	We have to follow him, find the picture by telepathy.	low
26	We are all already expert at second guessing.	low
27	We lie all together for once,	med
28	learning to see the constellations Taurus and Leo as if our survival depends on it.	high
29	"Here; that dim line up there.	low
30	Imagine a serpent, a dragon: can you all see it?"	low
31	My older sister says she can, but the rest of us suspect she is lying.	high
32	I can see the Dipper, the big one, the obvious one.	med
33	And I think I can make out the Milky Way.	low
34	The rest is a blur,	low
35	a rich, confusing picture book of too many possibilities.	low
36	But even if we can't see the clusters of stars,	low

(Continued on next page)

The Excerpt From *Prisoner's Dilemma* Used in the Think-Aloud Interviews Was Divided Into 61 Separate Propositions for Analysis

<i>Proposition Number</i>	<i>Text of Prisoner's Dilemma</i>	<i>Experts' Consensus Values for Salience</i>
37	all of us,	low
38	even my little brother,	low
39	can hear in my father's quizzes the main reason for his taking us out under the winter lights:	high
40	"If there is one thing the universe excels at, it's empty space."	high
41	We are out here alone, on a sliver of rock under the black vacuum,	low
42	with nothing but his riddles for our thin atmosphere.	high
43	He seems to tell us that the more we know, the less we can be hurt.	high
44	But he leaves the all-important corollary, the how-to-get-there, up to us, the students, as an exercise.	med
45	We have a few questions of our own to ask him in return before he flicks off the beam.	low
46	What are we running from?	low
47	How do we get back?	med
48	Why are you leaving us?	med
49	What happens to students who fail?	low
50	But I have already learned, by example, to keep the real questions for later.	high
51	I hold them until it's too late.	low
52	I feel cold, colder than the night's temperature,	med
53	a cold that carries easily across the following years.	low
54	Only the sight of my mother in the close glow of kitchen window,	med
55	the imagined smell of cocoa, blankets, and hot lemon dish soap,	high
56	keeps me from going stiff and giving in.	low
57	I pull closer to my father,	low
58	but something is wrong.	low
59	He has thought himself into another place.	low
60	He has already left us.	high
61	He is no longer warm.	high

*Note.* Salience values were based on the number of experts who chose to comment on each proposition (Low = 0-1 experts; Medium = 2-3 experts; High = 4-5 experts)