



The Blackbird Is Flying, The Children Must Be Writing

Teaching Wallace Stevens

by Sam Swope

I
Among twenty snowy mountains,
The only moving thing
Was the eye of the blackbird.

First we went over some hard words—*pantomime*, *indecipherable*, *Haddam*, *lucid*, *euphonies*, and *equipage*. Then, as I handed out copies of “Thirteen Ways of Looking at a Blackbird,” I told my fifth graders, “This is a famous poem written by an American businessman named Wallace Stevens. I’m telling you that so you know you can be a writer and still have another career.” I said, “Before we discuss it, I want you to read it silently.”

Thirty-six children put their elbows on their desks and leaned over the poem. I had been this class’s writer-in-residence for three years and knew them well. They were a smart group, immigrants to Queens, New York, from over twenty countries, speaking eleven languages. Many were poor, their sights set on doctoring as the clearest way up the

American ladder, and although they enjoyed reading and writing, most had the idea that math and science were the only subjects that really mattered.

Their classroom was crowded, not much space for anything but students, tables, and chairs. But it was a bright, tall room, at the top of a fat old schoolhouse made of brick and limestone. The room’s windows started eight feet up the wall, so that even when standing you had to look up to look out, and all you ever saw was sky. It was like being in a deep box with the lid ajar.

Twenty snowy mountains. It was late January, but seventy degrees and sunny. We were hot. “El Niño!” cried my students. “Global warming!” What could they know of mountains and of blackbirds? The school had no recess, and when the kids were not in class, most were stuck in tiny apartments, forbidden to play in the city streets.

The room was silent as the children read.

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A veteran of the T&W program, SAM SWOPE has written several picture books for children. As research for a book on teaching writing, Swope taught the same students in Queens, N.Y., for three years. The names of the children have been changed.

II

I was of three minds,
Like a tree
In which there are three blackbirds.

The moving “eye” of the blackbird becomes the “I” that is the poet, the blackbirds an unsettling metaphor for the poet’s thoughts. Throughout this poem, Stevens juxtaposes the actual blackbird with the blackbird of his mind. At least I think that’s what he’s doing, but it’s hard to know for sure. It’s a fair question: Is “Thirteen Ways of Looking at a Blackbird” too difficult for fifth graders?

Kenneth Koch, a poet whose useful, entertaining books on writing poetry with children have earned him my gratitude and trust, describes in his book *Rose, Where Did You Get That Red?* the way in which adult poems can inspire children to write their own poetry. Koch uses poems by Blake, Donne, Whitman, Lorca, Ashbery, and others, each providing an example of what he calls a “poetry idea.” He makes a special pitch for “Thirteen Ways of Looking at a Blackbird,” finding in it both a “gamelike quality” that is appealing to children and an obvious poetry idea: write about an ordinary object in as many different ways as you can. This assignment was well-suited for my yearlong unit on *The Tree*, and I hoped it would help my students approach our subject from new and interesting directions.

I waited for the children to finish reading the poem. One by one they looked up, faces blank. “Uh-oh,” I thought. The less confident cast sidelong glances round the room, checking to see if others were as lost as they. I told them, “This is a difficult poem. Don’t worry if you didn’t understand it. But before we discuss it, I’d like to hear your first reactions.”

Not a hand went up. Everywhere I looked, eyes avoided mine.

I called on Simon, a bright-eyed kid with sticking-out ears. Simon was the baby of a Dominican family, so lovable and so well-loved he never was afraid to say he didn’t know. “This is like a college poem, Mr. Swope,” he said. “Why’d you give us a college poem for?”

“Yeah!” said Angelo. “I didn’t understand a word of it!”

“Yeah!” said Alex. “I thought I was falling asleep!”

Smelling blood, everyone perked up, eager to join an uprising—yeah! yeah! yeah!

“It’s not a poem!”

“It’s like a set of instructions!”

“Directions to see a blackbird!”

“It’s a how-to thing!”

“It’s got numbers!”

“Yeah, it’s like so weird!”

I was of three minds: I am a rotten teacher; this is a rotten class; Stevens is a rotten poet.

III

The blackbird whirled in the autumn winds.
It was a small part of the pantomime.

Stevens’s economy of language is impressive. In just two lines he moves us from a single bird to the whole sky. If this were a scene in a movie, the soundtrack would be silent as the camera tracked the bird, then gradually pulled back to reveal an autumn panorama in which the ever-smaller blackbird soared.

“Now I’ll read the poem out loud,” I said. “Just make yourselves comfortable and listen.” I turned out the lights; the room went gray and dusky. Several students put their heads down. It’s a marvelous thing, reading to children. My voice, Stevens’s poem, blackbirds in the room. No one fidgeted, no one whispered, and when I finished, the poem hung in the air.

“Reactions?”

Students lifted their heads, rubbed their eyes. I called on Miguel, a polite boy whose mother had been a schoolteacher back in Ecuador. He smiled apologetically, sorry to disappoint.

“Come on, Miguel,” I said. “What did you think of the poem when you heard it read out loud?”

“When you read it, it made more sense.”

“Yes,” I said. “In what way did it make more sense?”

He smiled and squirmed, nothing to say.

Sageeta, a thoughtful Indian girl with beaded cornrows, put it this way: “When you read something, you can’t explain the feeling—it’s the feeling you have, whatever you do.”

“What do you mean, ‘whatever you do’?”

“When you read this, it’s a feeling. It gives you a feeling.”

“What feeling?”

“I can’t explain it.”

Is this enough? To read a poem out loud, cast the spell, give your students a feeling, and move on? Not talk about what can’t be talked about? Perhaps, but even if we say that sometimes the reading of a poem is enough, is “Thirteen Ways of Looking at a Blackbird” that sort of poem? I doubt it. If I had let it go, Stevens’s words would have whirled in the room and vanished.

It’s a tough poem to hold on to. It has no characters, no plot, no humor, no rhyme, no clear-cut beat, no uplifting sentiments, and its pleasures are subtle, quiet, abstract, intellectual. Koch is right. “Thirteen Ways of Looking at a Blackbird” is a puzzle, a Cubist collage—precisely the kind of poem you get to know better by talking about it. But how to do that with a room of ten-year-olds?

Following Koch’s advice, I focused on the poem’s more accessible sections, then asked the children to write about a tree in as many ways as they could. Most came up with four or five separate thoughts, of which these are typical:

It looks like eyes on the trunk.
A stick with a beehive on the end.
I wish it was Spring so my tree could grow leaves.
A tree is a place that keeps people trapped inside.
You are the wall I hate that covers the sun when I'm cold.

I was both heartened and disappointed. They had gotten the poetry idea, as Koch promised, yet they hadn't written poems. To help them do so, I decided we'd discuss the poem line by line, but in small groups, and then, using Stevens's poem as a model, write "Thirteen Ways of Looking at a Tree."

Later, after I explained this assignment, Sageeta looked at me and said, "Let me get this straight: You want us to use all thirteen techniques but with different words, and about a tree?"

"Yes, that's the idea, but if a section seems too hard," I said, "skip it. Make up something all your own."

"No, no, it's not too hard," she said. "No problem."

The world around the tree
Was hectic and moving
Yet it stood still
With a brave heart.
—*Sageeta*

IV

A man and a woman
Are one,
A man and a woman and a blackbird
Are one.

Here the style of the poem changes. In plain, declarative sentences, Stevens announces a spiritual idea of unity. We are all one. There's nothing more to say.

I met with students in groups of five or six. What a difference intimacy makes! One group was all boys, and by the time we got to this part of the poem, each of them was fighting to be heard. Simon, the boy who scolded me for giving them a college poem, was so eager to talk he couldn't sit still.

"Simon, please don't stand on your chair."

"But I want to say what section IV means!"

"Okay, what's section IV mean?"

"It means a man and a woman get married and become one because they love each other so they're not two separate people."

Cesar disagreed. "No, it means like the man and woman do like a matrimony and then they look at blackbirds and see the blackbirds do the same."

"But a man and a woman and a blackbird are not going to get married!" said Lorenzo.

"No, not like get married exactly," explained Cesar, "but birds, people, they do basically the same—"

"No!" said Simon. "He said that a woman and a man and a blackbird are one. He's not comparing them."

"Then what is Stevens doing with the blackbird here?" I asked Simon.

He went quiet for a moment, then he said, "It might be that that bird's their pet."

Everyone liked this idea. "Maybe they are bird lovers," suggested Lorenzo. "The man and the woman, they get married, so then they treat the blackbird like a child."

Cesar smiled, happy at that thought. "Part of the family," he sighed.

You are one.
So am I.
But trees are part of us
Also.
—*Noelia*

V

I do not know which to prefer,
The beauty of inflections
Or the beauty of innuendoes.
The blackbird whistling
Or just after.

I begged him, "Salvador, write! Write something! Try!"

He hadn't written a thing for months, rarely had his homework, and in class he couldn't sit still. Salvador was immensely confident, capable of unusual, interesting thought, yet he was also lazy and disorganized, angry and socially awkward. He often drew while other children wrote, but he wasn't very good at it, and what he drew upset me.

"May I see?"

Salvador had scrunched his drawing in a corner of the page. It was typically sloppy and mostly indecipherable. There were scratchy men with limbs that didn't bend, and there were guns and bombs. At least he had a bird, an eagle decently drawn, but even it was bleeding from the heart. There were blotches of explosion and lots of smudgy death, not the joyful ruin happy children draw, no flashing zigzag lines and gaudy colors.

"Oh, Salvador," I said. "Why are your pictures always so violent?"

He smiled, happy to be noticed, and continued drawing. We had had this conversation many times before.

"It worries me, Salvador. It makes me feel like you're not happy."

"Oh, I'm happy, Mr. Swope. I just like drawing violence, that's all."

I knew him well enough to say, "This picture makes me think you're going to grow up and be a mass murderer, Salvador, and I think you can do a little better than that."

Salvador giggled as he kept on drawing.

"Do me a favor. Stop drawing and try to write. Write at least one way of looking at a tree, okay? You can do this."

“Okay,” he said, and cheerfully pulled out his writing folder.

It grows big
but he
is small
although
big things
are happening inside.

—*Salvador*

There are no euphonies here, and even though his poem isn't perfectly clear, it has some interesting innuendo going on, a lot of promise. I gave it a *Good!!!*

But it's hard to know what I responded to—the poem itself, or the boy behind it; my student as he was, or as I wanted him to be.

VI

Icicles filled the long window
With barbaric glass.
The shadow of the blackbird
Crossed it, to and fro.
The mood
Traced in the shadow
An indecipherable cause.

This section was a class favorite, with its prison made of ice, its menacing shadow, and its goosebumps sort of evil. Yet when I asked Soo-jung how she'd do something similar, but with a tree, she shook her head and told me that was hard.

Her classmates disagreed.

“I know!”

“Through the icy window—”

“The tree—”

“Or its shadow—”

“It looks like a monster or something—”

“Suddenly the wind blows and you see this branch—”

“And it looks like a hand—”

“Yeah, and you get scared—”

“And you see a UFO!”

As other children huddled round and spun this silly horror, Soo-jung sat in silence. She was often quiet, not always by choice. Sometimes she'd join in a discussion, then startle us by going mute, eyes looking out at me as from a cell. She couldn't speak, not even when she wanted to. No one could explain these strange and sudden silences, least of all Soo-jung. It was as if she were under a curse, and in a way, she was.

Soo-jung had emigrated from Korea with her parents at age four. Three years later her mother up and left. Soo-jung's father didn't tell his daughter why or where her mother had gone, and Soo-jung never heard from her again. This is the stuff that fairy tales are made of: abandoned daughters locked in towers, wounded birds and goblins dancing in a circle, “No one loves you! No one loves you!”

When you suffer as a child and have the blackbird's shadow in your heart, do you lose the fun of fear, the happiness of horror? Throughout the years I had her as a student, Soo-jung never once wrote of a happy ever-after. No prince ever rode into her stories.

We want to know our students, and knowing, try to help. I searched her writing, certain that I understood, but is her life, as I have told it, her deciphered cause? Am I so wise? Can I say I know this child so well I see into the window of her soul? What arrogance is that?

Soo-jung's only comment on this section of the poem was, “I don't like looking out an icy window 'cause I feel like it's destroying my eyesight.”

“Because you can't focus?”

“Exactly.”

The tree is an angel
That god sent down
To watch over the earth.
But in the winter
The snow covers its eyes
So it can't see.

—*Soo-jung*

VII

O thin men of Haddam,
Why do you imagine golden birds?
Do you not see how the blackbird
Walks around the feet
Of the women about you?

It's hard to look at the world and really see it.

One day we were outside, and the kids were drawing trees. I was watching Angelo, a skinny Cuban kid with shiny blackbird hair.

“Angelo, why are you coloring the tree trunks brown?”

“Cause that's what color they are.”

“Take a look around you. What color is the bark?”

He squinted at some nearby trees and said, “It's brown.”

“No, it's not. It's gray.”

“No, it's not. It's brown.”

“Look!” I told him. “Use your eyes!”

Angelo looked again, and when he saw that I was right, he said, “I don't care what color real trees are. In comics, trees are brown.”

Angelo's parents were divorced. To support her son and daughters, his mother worked six days a week as a receptionist. She was a kind, decent woman with a sad smile, and she always looked tired. She came to school several times, worried about Angelo. He didn't read books, was bored by school, didn't do his homework, hadn't tested well. All he cared about was comics and cartoons. What should she do?

“Buy him paper and paints and markers,” I said. “Send him to art class.”

“I don't want to encourage him.”

"His comics are really good. Maybe he'll be an artist."

"That's what I'm scared of," she said. "An artist's life is very hard."

"It's scary, yes. But if he is an artist, there's nothing you can do. You won't change that. It'll be better for Angelo, and better for you, if you encourage him."

This made her sad.

"Don't worry, he'll be fine. I think he's got a gift. Besides, there's money in cartoons."

It was easy to see him as an artist type. Angelo was a loner. He was quiet and sensitive, quick to cry, but he had a rattlesnake temper when roused. He loved to dance. Although happy if I let him make a comic and not write, if I didn't, Angelo would make a comic anyway, drawing one in words. It didn't matter what sort of writing I got him to do—essay or story or poem—it was always a comic strip struggling to get out.

When Angelo handed in his "Thirteen Ways of Looking at a Tree," I asked him, "While you were writing this, did you glance at a real tree even once?"

"No."

I threw up my hands and said, "Angelo!"

"Heh, heh, heh," he answered, mimicking Beavis.

But Angelo was right, just following the master. I don't imagine Wallace Stevens sat on some old rock while writing of the blackbirds at his feet.

O crazy mimes of Staten Island
Stop giving free performances
to the tree, can't you see the
Tree is one of you, you mimes,
The Tree is a very still mime!

—Angelo

VIII

I know noble accents
And lucid, inescapable rhythms;
But I know, too,
That the blackbird is involved
In what I know.

In the beginning was the thump, screech, and grunt. Then came words, or was the whistle first? Long before our noble accents, back when speech was being made, what models did our early wordsmiths use? Where did the sounds of language come from—the whoosh of wind, a gurgling stream, the songbird warble? Somewhere lost in time did Nature help to shape our tongue, and so inform our thought? Is that what Stevens meant: "the blackbird is involved in what I know"?

I asked Fatma, a gloomy Pakistani child and the school's top speller, what she had made of "Thirteen Ways." She hadn't liked it: "The thing is, it doesn't say very much, but then you don't understand it."

Good point. Even when his words are simple, reading Stevens is like trying to understand a language you don't know very well. You have to do a lot of guessing.

But Noelia, a carefree Caribbean child, showed her gap-toothed smile and said, "That's why I like this poem."

"Explain."

"Because I didn't understand it!"

"But why do you like that?"

"Because I learn new things," she said. "And it's kind of weird."

"Weird is good?"

"Oh, yeah! Weird is def-i-nite-ly good."

Noelia loved the funniness of words, their boing-a-doing and tickle: "In-you-EN-doe!" "YOU-fun-knees!" But with Stevens I suspect she loved the word *equipage* best of all, and when I said, "That word is kind of fun to say. Let's say it all together," Noelia pogoed up and down and shouted out of sync, "Equipage! Equipage! Equipage!"

Later, I told this story to a friend of mine, a fan of Wallace Stevens and a poet. When I was done, she asked, "That's how you pronounce it? Are you sure that it's eh-kip'-ij?"

"No, I'm not sure," I said. "How would you pronounce it?"

"It's French. I think it's eh'-kee-pahj."

"My God, how stupid, yes, of course you're right."

Whatever was I thinking?

But then I looked *equipage* up, and found we both were wrong. A French word, yes, but come to us by way of England, its Gallic murmur filtered through a Henry Higgins nose. It's ek'-wuh-pij.

The hands of
the tree
reach for the
sunlight

—Lorenzo

IX

When the blackbird flew out of sight,
It marked the edge
Of one of many circles.

If Stevens were my student, I'd have written in the margin: "Interesting image, Wallace, but I'm not quite sure what you're referring to here. What circles do you mean exactly?"

I think about my students. I can see them in my mind—or sort of can—the whole class in a circle, holding hands.

When the
tree shakes
its arms
I still see the
mark
left behind.

—Polly

X

At the sight of blackbirds
Flying in a green light,
Even the bawds of euphony
Would cry out sharply.

I told each group, "I have no idea what this section means. Don't bother imitating it. Just make up something of your own. Now, let's move on."

I didn't understand the section, true enough, but that's not why I hurried to get past it. I wanted to move on because of the word *bawd*. I had looked it up, expecting it to mean "a libertine," but *bawd* instead means "prostitute."

It wasn't that I didn't think the kids could handle that. They watched TV, they flipped the bird, they spat out words both coarse and sexual. Some of them knew a lot more than they should. My worry was their parents, who didn't know how much their children knew (or half-knew, even worse) about the whores who nightly worked the nearby strip with all the garish lights. My worry was the school board and the armies of the right.

I looked out my window
And there the tree stood,
Gazing into my eyes
Like it knew something.
—*Sageeta*

XI

He rode over Connecticut
In a glass coach.
Once, a fear pierced him,
In that he mistook
The shadow of his equipage
For blackbirds.

This one's fun. The glass coach crossing Connecticut is a nice touch, almost surreal, with the rider—I see someone noble—vulnerable, exposed, as though inside a bubble. Then the sudden fear, a gasp!

"How would you do that, but with a tree?" I asked one of the groups, and had them write.

Whip-smart Polly needed time to think, but not too much. That girl could get her words down quick.

As I ride the bus
along the road
I see the tree
moving but not
me, am I crazy?
—*Polly*

Yes! She'd even got the startle right, the shock we feel when things aren't what we think.

Polly came from Hong Kong, skinny as a stick, and everything with her was fast, fast, fast. On Field Day when

the whistle blew, off she'd fly and leave the rest behind. In class, no sooner did I give a task than snap! she had it done—and neatly, too. And when it came to math, her hand shot up, the numbers figured out inside her calculator head. There's more: eager to grow up, she was the first to place a hand upon her hip, to roll her eyes and say to me, "Oh, please!" And long before the other girls, Polly played the teen and wore short shorts, her shirttails knotted up above her little belly button.

On parent-teacher night, she brought her mom and dad to school. They knew only Chinese, so Polly told them what I said. We spoke, her parents smiled and nodded, looked confused, and left. A topsy-turvy world, the daughter telling grown-ups how things are. There were a lot of things that Polly didn't know, of course, but what's a ruthlessly efficient girl to do? To be not lost, she grabbed whatever models she could find, and they were all around her: Spice Girls! *Baywatch!* *Titanic!*

To counteract, I offer Art. Yet what can any poem do—a match's flicker in Times Square! And though the battle's always hard, it's harder still with poems as strange as Stevens's with its winter thoughts, all mind, no easy heart. But maybe that's why Polly worked with it so well. Clever thing, she tackled it like math.

Two birds on a
tree. Two minds
in one. As two
minds in one
thought.
—*Polly*

Brava! Not only had she understood the birds as metaphors for thought, but she extended that and made them metaphors for love. I told her, "Polly, this is really good. Profound, in fact, and beautifully expressed."

She said, "I got this idea from a commercial."
"What idea?"

"The two always stick together," she said and slyly smiled.

I didn't understand, but Polly swatted at the air and gave a huff and told me, "Never mind!"

Noelia turned to me and said, "It's from a toothpaste commercial, and part of it is tartar control and part is whitening, and together they are one."

XII

The river is moving.
The blackbird must be flying.

Jessica always thought too much, which made her stories so complex and so confused that the only way she could think to end them was to write: "To Be Continued!" And when she made her first attempts to mimic Stevens, her words were typically perplexing:

The land was
of five minds
like my tree.

I said to her, "Don't think. Just write whatever comes into your head!" When our work that day was done, among the other bits she handed in was this:

My tree is so big
that no one
really notices.

Some days later, I read this poem to the class and Jessica cried out, "But that's not mine!"

"It has your name. It's in your handwriting."

"I'd remember if I wrote it."

I handed her her paper, which she studied, disbelieving.

"You wrote it, that's for sure, and good for you," I said.

"That is a good poem."

Jessica looked surprised. "It is?"

"Yes."

"Oh!" she said, and beamed with pride.

Then she got to thinking, and later said to me, as if confessing, "That poem I wrote that you liked? I don't know what it means."

XIII

It was evening all afternoon.
It was snowing
And it was going to snow.
The blackbird sat
In the cedar-limbs.

There's a lot of quiet in this poem.

Earlier, when Salvador discussed the blackbird whirling in the silent autumn winds, he said, "I think what Wallace was trying to say is like the blackbird would make no noise when he was going through the wind and so he was like part of the stillness of what was around him."

"But if he was part of the stillness," said Maya, "he shouldn't be moving, right?"

"Stillness can also mean quiet," I said. "It doesn't only mean motionless."

"Oh," said Maya, dreamy-eyed, her straight black hair so long that it was like a cape.

I asked Tomás, "What is Stevens doing in the last section?"

Speaking softly, Tomás said, "It's the end of his poem, so it's gonna be like it's gonna be darkness, and it's snowing a little, but it was gonna snow more, so he has to go home."

"Why does the poet end with this simple image?"

"Because he probably doesn't want to write no more and so he wants to end it in a way that people can understand."

"Mmm-hmmmm. How do we know that it's ending?"

"He's saying it's evening and he has to go to sleep or something."

Sleep, perhaps, or maybe there is here a deeper stillness, the blackbird on the snowy limb a metaphor for death. Many children heard the poem's darker echoes, but Maya, who loved horror, reveled in them. "Isn't thirteen a dreaded number?" she had asked me with a hopeful smile. "Isn't black an evil color?"

"Yes," I said. "That's in the poem, too."

Maya was a model student with a peaceful, pleasant manner. When we studied Stevens, I did not sense that anything was wrong, and did not know that her favorite uncle had just died, or that her best friend in the class had recently betrayed her. It wasn't until sometime later that her mother called to tell me Maya was often overwhelmed with tears and cried out to her parents, "I want to die! I want to die!"

As still as night
as night is
still
The wind blows
the bird chirps
the dog barks
but still
the tree is still.
The bark falls off
but there is no sign
of pain, or suffering.
How can this be?
No pain,
no nothing that a
human has.
So giving
and strong,
nothing really
in its way.
—Maya

We worked with Stevens for two weeks. And then, at the end of a February day, several children read their poems to the class, and we said good-bye to blackbirds. Everyone was tired, yet everyone seemed happy. It was time to go home.

"All right," I said. "That was good. Thank you. That was very interesting."

When I asked Simon if he liked the poem now, his face lit up. "Oh, yeah, a lot!" he said, and others quickly cried out they did, too—oh, yeah! yeah! yeah!

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Call for Essays

For a New Book on Teaching Nature Writing

Teachers & Writers Collaborative is looking for informal essays for its forthcoming *Teachers & Writers Guide to Nature Writing*. This anthology will feature ideas and exercises to encourage students to pay attention to the outside world, using both life and art as points of departure in imaginative writing. Essays should be friendly and pragmatic, not scholarly. We want pieces that teachers from elementary through college level could use in their writing classrooms.

You might start with an assignment your own students have enjoyed: drawing a map of a particular place and writing from it, or going on a poetry field trip. Or you might start with a particular poem or prose work, describing how you used it as a springboard for writing in your classroom. Walt Whitman, Basho, Theodore Roethke, Mary Oliver, D. H. Lawrence, Pablo Neruda, Denise Levertov, Gerard Manley Hopkins—to name a very few—have written wonderful nature poems. There are also many other inspiring

examples from Asia, Africa, Australia, Europe, and the Americas, from tribal societies to the contemporary megapolis (nature writing can come from urban settings as well as rural and wilderness areas).

Examples of your students' writing (both poetry and prose) are highly desirable but not mandatory. There is no restriction on manuscript length, though anything less than five pages usually feels skimpy. The general range is 5–25 pages. All manuscripts should be typed double-spaced.

The volume will be edited by Christian McEwen and Mark Statman, writers who have worked with teachers and students for many years. If you wish to discuss an idea with them, you can reach Christian McEwen at (413) 625-9560 or Mark Statman at (718) 768-5484. For general questions about the project, contact Chris Edgar or Ron Padgett at Teachers & Writers Collaborative, (212) 691-6590.

The Probability of Poetry

From Math to Literature

by Matthew Szenher & Dale Worsley

1. From Math to Metaphor

by Matthew Szenher

A junior in my math class came after school for extra help. For about five minutes, I reiterated what I had said in class that day. She took down some notes, interrupting with a few questions. I wrote a problem that we solved together, applying what she had learned. Then I gave her an almost identical problem to do on her own. She bit her lip, focused intently on her paper, wrote a few equations in her notebook, and seemed to be on the right track. But soon she lifted her pencil and began to move the tip in circles, still looking at the

page. After a few seconds, she said in a trembling voice: "Mr. Szenher, this is impossible. I can't do it!" Her arms crossed over her stomach, and her whole body shook. She was holding back tears.

A large proportion of the seventeen kids in her class experience a similar math anxiety. Why? Perhaps previous math teachers have emphasized the correct answer over an understanding of the logical process—one misstep leads to failure. This pedagogical emphasis is understandable in light of the way colleges assess our students: the SATs. But I want my kids to be able to think, as well as come up with correct answers, and this is hard when their defenses (furrowed brows, tight lips, and wavering attention) go up every time I require them to negotiate the seemingly Byzantine worlds of trigonometry, geometry, and probability.

Believing that the first steps in conquering a fear are to notice and then describe the emotion itself, I designed an activity for my kids: to write metaphors describing their frustrations with mathematics. I expected that this would be an engaging exercise because most of the kids in this class

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found self-expression more appealing than math. I suggested that they imagine themselves at home doing a hairy math problem. After giving them a minute to get into this fearful frame of mind, I suggested they write three metaphors to describe their feelings. They put their heads down, became deeply engaged, and wrote. Here are six of their metaphors:

I feel very vulnerable like a small plant or a flower that tries to fight against something almost impossible.
Sometime shine but sometime dark. [By an ESL student]
I could feel the pressure as if I were a grain of corn about to burst in the microwave.
I felt the pressure of a bug being crushed by an elephant.
It feels like drowning in the waves of the ocean.
I am a volcano and I can't explode, everything stays within, thus immense frustration.

The students' fears and pressures are fully evident in these lines, in which math is revealed as huge and powerful (an ocean, an elephant, a volcano), whereas they themselves are comparatively small and weak (a grain of corn, a bug, or a lone swimmer). I wrote metaphors describing my feelings about math as well:

I feel like a sardine darting in the ocean.
I feel like a bear rumbling through a dark forest.

Interestingly, I too see math as a huge world, but in it I am an animal with some ability or power.

The metaphor exercise was like an exhalation. The students seemed to agree. One commented: "It helped me get out my frustration. Instead of getting angry, I could write a metaphor. I felt better, surprisingly." Another said: "Hearing that other people have the same fears as I do is helpful. I'm less embarrassed to ask questions which I may think are stupid."

The images were so wonderfully expressive that I wanted to show them I felt they had really accomplished something. My colleague Nick Didkovsky had written a computer program to scramble sentences into statistically similar, although nonsensical paragraphs. (His program is accessible via the Internet at <http://www.ingress.com/~drnerve/nerve/pages/interact/mrkvform.shtml>.) I decided that, given my kids' predilection for literature, I would write a similar program to convert their metaphors into a kind of chaotic poetry.

I programmed a computer to select the word *the*, then to generate the next word by scanning the list of metaphors for every word that came after *the*. It would calculate the frequency of each word's juxtaposition with *the*. Thus, for example, *fish* followed *the* three times in the metaphor list, *pressure* followed *the* twice, *smaller* five times, and so forth. The generator could choose any of the words adjacent to *the* in the metaphors, but it was more likely to pick a word with a higher frequency rating. This is what it meant for the poems to be statistically similar to the metaphors: there was a good chance that short phrases in the metaphors would be

repeated in the poems, but as the phrases got longer, this likelihood decreased. Suppose that the generator selected *pressure* to appear after *the*. To generate the third word in the poem, it would scan the metaphors for all words following *pressure* and select one. Again, the words that appeared after *pressure* most frequently had a higher chance of being selected. The program generated 35 words in this manner, after which it continued picking words until it selected one ending with a period, question mark, or exclamation point.

Here are three generated poems:

the only problem I feel like taking a single grape in the answer.
within, thus immense frustration. have been before without a different point of seeing
the tube, at the waves of summer.

the middle of corn about to burst in a small plant in a small plant or move just sit still. a melting ice cube in the middle of summer.

the pressure
as a cliff and saliva coming out the tube, at the snout. a Marriot Hotel. a single grape in somewhere where you have been before
without any success, frustration.

The poems were mostly nonsensical and contained mistakes of grammar and punctuation. Nevertheless, this program proved to be useful in the classroom. For one thing, my explanation of the machinations of the program to the class included a review of probability, which they had studied earlier in the year. The program also gave them the opportunity to do some relevant science writing, as I needed cogent explanations of the algorithm. I culled the best explanations and used them in the introduction to the program itself, which is available on the Internet at <http://www.dwright.edu/PoemGen/>.

The poems themselves engendered additional activities. Some of the students were frustrated by their meaninglessness. One student wrote: "The poems annoyed me because they made NO sense. It was all jumbled and confused. I like to read something with meaning." Other students found them stimulating. One said: "The poems from the Poem Generator are fun to read. It is interesting to see the words of all my classmates come together to form a collaborative piece. Some poems were funny, some did not make any sense at all, but some made a lot of sense." Dale Worsley, a writer-in-residence in the school, thought it would be useful to explore these attitudes. Although we were fast approaching the end of the year and students were busy preparing for their final exams, five of them volunteered for a two-session writing workshop to revise some of the pieces generated by the Poem Generator. One student described the poetry generator as a great "creativity aide," and the results below confirm it.

2. From Metaphor to Literature

by Dale Worsley

Matthew's work with his students is a good illustration of writing as a tool for understanding how students think and feel. The concept of probability had become more interesting and relevant to them, and their comprehension had been enhanced. The symbols of language had been used as a conduit to the students' feelings about the symbols of math—an elegant symmetry. If, as Wordsworth asserted, poetry is "emotion recollected in tranquility," then perhaps these students would have a more tranquil reaction to a frustrating math problem next time.

Matthew's work also had strong literary potential. The original compilation of metaphors sounded like a collaborative list poem:

. . . I feel like a cherry-flavored lollipop being gnawed
on.
I feel like a snowy day in the middle of summer.
I feel like a melting ice cube in a bowl of chicken noodle
soup.
It feels like I am standing on the edge of a cliff and I just
lost my balance. I plummet.
I am a single grape in a toaster slowly losing water.
I feel like a pretzel.
It feels like drowning on the waves of the ocean. . . .

The poems generated by the computer were entertaining; sometimes the transformed metaphors were shocking, or imaginative, or suggestive: "Problem. I feel like a cockroach being smashed by lightning," or "a snowy day in a flower that must be opened," or "feels like an elephant on the edge of summer." The images, sometimes lyrical, sometimes abstract, sometimes amusingly nonsensical, could easily occur in more traditional poetic forms.

These proto-literary qualities of the work might have remained underdeveloped but for the strength of the students' reactions to the project. It seemed natural to set up the workshops and move the work fully into the field of literature.

In our workshops I began with a short period of freewriting to get focused, then introduced some of the poetic forms suggested by their work. We examined lines from Bill Knott's abstract poem "Nights of Naomi" and a sample of Gertrude Stein's *Tender Buttons*, which has some of the qualities of abstract poetry. These pieces showed the students that their reactions to both the nonsensical and the imaginative qualities of the computer-generated poems had a context in modern literature. To prepare them to work with poems of their own, we studied the short poetic line (in James Schuyler's "Verge") and long ones (Whitman). I also showed them an example of my attempts to convert the computer-generated poetry into more readable work:

the very vulnerable like running around
a snowy day in a bug being smashed by an ant being
gnawed on. you have no ability to get

in a problem I can't
hold my breath anymore.

—*Poem Generator*

The Very Vulnerable

We are the very vulnerable.
We run around naked on snowy days.
We are bugs being gnawed on by ants.
We have the ability to get in a problem
but we can't get out.
We can't hold our breath . . .
we can't hold our breath . . .
we can't hold our . . .
breath . . .
anymore.

—*Dale Worsley*

The students then went to computers, extracted what might be seen as "rough drafts" or "pre-writing" from the Poem Generator, and wrote versions of their own.

One student, Peter Erlikh, changed the articles, the prepositions, and the order of the phrases to convert his computer-generated piece into one that had more meaning for him:

the microwave. many
others and
they all know the anger and I
am a circle
my balance.
I felt like a bug being gnawed
on.

—*Poem Generator*

My Balance

I felt like a bug being gnawed
in the microwave like many others.
they all know the anger on me.
I am a circle,
like others,
in my balance.

—*Peter Erlikh*

In the critique that followed, the workshop group was especially enthusiastic about what he had done with the last three lines. The students found the circle image to be geometrically as well as psychologically apropos, and they thought the phrasing was sophisticated. When they questioned his use of the preposition *on*, Peter defended it. He said the anger was like a weight, or burden on him, rather than something inside him.

Chris Granite lost the computer-generated version of his piece, but wrote a second draft that made more conventional sense than Peter's:

The anger I possess is
like a step outside myself.
I am a computer without any success,
having my buttons pushed to the limit.
I am like a volcano about to erupt.

Should I move or should I sit here,
all the while taking in the pain?

—Chris Granite

The workshop participants found this one easier to accept at first look. The repetition of phrasing and imagery was immediately powerful, and they readily identified with the question at the end.

Alicia Schaeffer took a tack similar to Peter's in breaking prosaic convention for poetic effect:

the race with wild
tigers. being crushed by an open orange. of summer.
by lightning. of seeing the waves of the middle of summer.

—Poem Generator

the race of season:
the waves of summer are wild with tigers.
the middle of summer is being crushed
by the lightning
of
the pressure of an orange.

—Alicia Schaeffer

Her classmates praised the poem for the way it opposed sensations of calm and violence, for the beauty of its visual imagery, and for the cadences, which were enhanced by the line breaks. But some found it even more mystifying than Peter's, at first. They thought the comparison of lightning to the pressure of an orange was too unrealistic and felt she could strengthen the poem by moving, or even deleting, the idea of the orange. Alicia defended her idea, though, asserting that while it might not make perfect sense physically, it suggested things in its ambiguity that she felt she couldn't achieve in any other way.

In our second session we all wrote poems derived from the same computer-generated version:

the answer. do. of a keyboard. being burned
by lighting.
a problem from a volcano and I can't hold my balance. I
felt as I am a cat smelling an elephant.

And here are the student revisions:

I am being burned by lightning
as I reach for the answer.
My body heats like a volcano, from
the problems I cannot solve. If I
can hold my balance . . .
long enough . . .
maybe I will catch my answer.

—Alicia Schaeffer

The answer is being burned by the lightning.
A problem from this volcano can't hold my balance.
I felt as if I were a cat smelling an elephant.
The keyboard can't help me to do anything.
A foot is stepping on me.

—Frederick Lau

My life is an erupting volcano
I'm being burned by everyone
The answer I do not know
It flashes before me like a bolt of lightning
I can't hold my balance anymore
It is making me very volatile
much like a cat smelling an elephant
The answer is too elaborate to be described on a
keyboard

—Chris Granite

I am as a problem.
I am with the answer.
I am for the keyboard.
I am not a cat.
I cannot hold my balance.

—Darius

The answer, a cat being burned by lightning.
I can't hold my balance.
A volcano, a problem from a keyboard.
I felt as smelly as an elephant.

—Peter Erlikh

The students' written comments on each other's work ran as follows:

Frederick's poem was the most memorable because of the line "The answer is being burned by the lightning." I liked the same aspect of Peter's poem except "the cat" takes away from the line.—Alicia

The most memorable poem was done by Chris because it was like a story. That made it really easy to remember.—Frederick

The most memorable poem was Peter's because it was very deep and I liked the style he used, and the similes he used, such as the meaning of the cat.—Chris

Chris's poem—volatile. The last line was what I loved: "The answer is too elaborate to be described on a keyboard."—Darius

Chris's poem was remarkable because of his message of a life deteriorating (death).—Peter

The students enjoyed our two workshops, but I was curious to know exactly what they might say about the experience, so I asked them to tell me in writing. Here are some responses:

The first thing I felt when I was writing this poem was that I was really free to write and there was no need to think too much. Poetry is not a hard thing to write, which I never thought before.—Frederick

This was a new outlook for me. I think this is a great idea. Usually poetry comes straight from a person's life: his experiences, thoughts, feelings. This assignment, however, combined someone's experiences, thoughts, etc., with the ideas of scrambled metaphors.—Alicia

My experience in poetry has flourished. By doing the exercise I have been able to express emotions and inner thought.

—Peter

I was not surprised to hear that students found it liberating to write from the scrambled metaphors. Many people have restricted ideas about the nature of poetry and of the possibilities of writing in general. To discover how flexible and spontaneous writing can be is almost always a pleasure.



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