

# ENCOURAGING PLAYFUL, PRODUCTIVE CURIOSITY ABOUT LANGUAGE IN THE WRITING CLASSROOM

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On one level, language is already at the center of every writing classroom: it's hard to write a paper without using it! But it is not necessarily the case that language is given a starring role in writing classrooms as an object of study in its own right; for many, the idea of treating language itself as an object of study invites concerns about explicit grammar instruction. Susan J. Behrens offers a nice overview of what she calls the "grammar wars" that have dominated discussions about the role of explicit language instruction in the classroom: the numerous issues with old-fashioned "drill and kill" style grammar exercises, along with the weak evidence that this kind of instruction improves student writing (Wyse 31-35), have understandably given teachers reason to be suspicious of calls for explicit grammar instruction in the writing classroom (41-48). But as is noted in the *2014 CCCC Statement on Second Language Writers*, our writing classrooms are becoming increasingly multilingual, and students writing in a second or other language have unique needs, including needs related to the acquisition of linguistic knowledge. On this front, they are not necessarily as different from our native-English speaking students as we might imagine, since the conventions of what we call "Standard English," especially its academic registers, are not necessarily familiar and comfortable even for all native English speakers.

The increasing linguistic diversity within our classrooms is something we can embrace; rather than using approaches that emphasize conformity to a single variety of "Standard English," we

can celebrate the diverse linguistic resources of our students, and use these as an entry point to curious, playful exploration and questioning of the expected ways of using English for academic writing. I propose that we can best accomplish this by encouraging students to “play” with language: linguistically-informed “games” and activities can engage students to think deeply about the grammatical and lexical choices that they are making and the effects these choices have on readers in particular contexts. Through play, we can get students to think about how language does what it does, and to start paying attention to the relationship between form and function; in essence, we can help them start to think about language like functional linguists.

I’ve been “playing” with language for as long as I can remember; as my relatives could attest, I would often spend more time exploring the multilingual instruction packets that came along with toys at the holidays (I jokingly refer to these as “Baby’s First Parallel Corpora”) than I did playing with the toys themselves, and was known to “play” with the dictionary, too. Language has always been my favorite “toy,” and one of my goals as a teacher of writing is to share the joy of playing with language with my students and colleagues. My academic background spans the related disciplines of formal linguistics, computational linguistics, psycholinguistics, and cognitive science, and as a teacher of first-year writing, I draw upon all of these disciplines in my work with students. But while this background informs my approach, the activities I describe here are accessible to all. I’d argue that anyone who teaches writing is fascinated with language (even if they didn’t “play with the dictionary” as a child), and this is a fascination that we can share with our students. In doing so, we can create classrooms in which concepts like “grammar,” which can often strike both instructors and students as either intimidating or boring, can be approached instead with a sense of playful exploration focused on the meaning-making functions and rhetorical effects of different linguistic choices.

In this approach toward language, I am highly indebted to scholars working in the traditions of functional linguistics and rhetorical grammar, specifically William Vande Koppel, Craig Hancock, and Martha Kolln; I draw upon exercises and activities from their books in nearly every class I teach. But what I hope to offer in this paper is an approach that may help those students (or instructors) who tend to be a little more intimidated by formal grammatical terminology. In this, I'm inspired by the "concept-first, jargon second" approach articulated by Lisa McDonnell et al. (18) and promoted specifically for the purposes of communicating about linguistics by Gretchen McCulloch. If students first encounter interesting linguistic phenomena through play, they are likely to be curious about them, and thus more motivated to learn about the formal grammatical terms that describe those phenomena. But it's not just about motivation: the research from McDonnell et al. (16) suggests that students are in a better position to comprehend and productively use technical vocabulary if they encounter the relevant concepts first. By helping students learn to productively explore language in playful, low-stakes ways, we can create the conditions that will lead to a much deeper understanding of how language works.

In this paper, I aim to explore playful ways to get students to be curious about language and explain how findings from psycholinguistics and related fields can be used to create engaging in-class activities that will enable instructors to teach important concepts, both grammatical and otherwise, to student writers. I also hope to show that this doesn't need to be intimidating or boring to either the instructor or the students; it can be joyful and playful, instead. Language is for everyone, and it's fun to play with.

### **Giving Language a Central Place in the First-Year Writing Classroom**

In my own teaching, I have whole-heartedly embraced a multilingual writing classroom. At my university, our first-year

writing classes are theme-based, and my course has a theme centered around questions relating to language and the mind, and in particular, the debate over whether language shapes thought. One marvelous affordance of this debate as a focal point in a multilingual classroom is that it creates an opportunity to discuss grammar that does not privilege “Standard English,” but rather values all languages for the resources and creative potential they carry in their grammars. It creates a context in which particular aspects of grammar can be discussed not in terms of “right” or “wrong,” but rather, in terms of what those aspects of grammar *do*, the meanings that can be created, and the effects that different grammatical choices have on the people who use the language. It creates an environment in which speakers of languages other than English are valued for their linguistic and cultural expertise, and where both native speakers and non-native speakers can explore together how languages express ideas. In the following section, I’ll explain the debate over whether language shapes thought in a bit more detail, with an emphasis on how this particular topic can invite very productive discussions about linguistic choices in a multilingual classroom.

### **The Debate over Linguistic Relativity**

The question of whether the language we speak shapes the way that we think has captivated people for a very long time. One of the most well-known claims about this came from Benjamin Lee Whorf, who proposed, based on what turned out to be superficial and incorrect observations of the Hopi language (Malotki 3-6), that if a language lacked a word for a particular concept, speakers of that language could not think about that concept. This formulation is often referred to as “linguistic determinism”: the argument is that the structure of a language actually determines the kinds of thoughts that a speaker of that language can think.

As a linguist, I tend to be rather skeptical of claims that the language we speak constrains our thinking in any meaningful way. Yet there is evidence from research in psycholinguistics and

cognitive science that suggests that the grammatical distinctions that languages force us to make do actually influence, at least to some degree, the kinds of things we remember and pay attention to and the ways in which we make sense of our world. For example, speakers of languages in which the word “fork” is marked as grammatically masculine tend to choose a masculine voice for an animated fork, whereas speakers of languages in which it is marked as grammatically feminine tend to choose a feminine voice, suggesting that grammatical gender can influence our intuitions about the gender of inanimate objects (Sera et al. 381-386). Another bit of research suggests that speakers of a language that obligates its speakers to refer to directions using cardinal directions (“north”, “south”, etc) rather than ego-centric ones (“left”, “right”) are better able to keep track of what direction they are facing and even think about time in terms of a consistently east-west axis, rather than a left-right one as English speakers do (Boroditsky and Gaby 1637).

This phenomenon is what linguists call “linguistic relativity”: the idea is that linguistic categories and structures can influence our thinking, but they do not limit or determine it; we can, in fact, think thoughts that are not easily expressed in our language, and indeed, we can even invent new words and constructions if our language is not up to the job. But it may still matter whether or not the grammar of our language forces us to make a particular distinction when we speak; as linguist Roman Jakobson famously said, “Languages differ essentially in what they *must* convey and not in what they *may* convey” (236). Linguistic relativity holds that if we are obligated by the grammar of our language to mark a particular kind of distinction, we are more likely to develop the habit of thinking about that distinction.

Discussions around language and thought blend nicely into discussions around writing. One thing I find to be true in my class is that there is no hard boundary between the readings I ask my students to do about writing and the readings I ask my students to do about language and thought. For example, in my class, Linda

Flower's *Writer-Based Prose* is both a text about writing that can help my students understand what is happening when they write first drafts and also an illustration of the need for "translation" even without a language barrier. Translation turns out to be a very fruitful concept to explore in a writing class, and in the following section, I outline a pair of playful translation-related activities I do with my students.

### **Connecting These Themes to Writing Through Translation Games**

In a multilingual classroom, the students themselves speak a variety of languages with a variety of interesting features, and this can become fodder for discussions about how languages do what they do. One early writing assignment in my class asks students to choose a text from a language they know that they think would be particularly difficult to translate into another language, and then explain what it is about it that would make it so hard to translate, and what might be lost in translation. We start by reading a short excerpt from Douglas Hofstadter's *Le Ton Beau de Marot: In praise of the music of language*, namely the Poems I section, in which Hofstadter introduces a short 500-year old French poem, and then presents a series of five translations of it, along with his insights and perspectives about the constraints and features he tried to consider in creating each translation, and the challenges that arose. I ask my students to explain their text in the same sort of way: what are the particular features of the text that seem important, and why might those be non-trivial to translate into another language?

My monolingual English-speaking students sometimes struggle at first with this assignment, feeling like they have nothing interesting to offer. This assignment guides them to think about English texts in a new way, and to pay attention to details they may previously have completely ignored. They often end up choosing texts that feature wordplay or culturally-specific allusions, and very frequently choose poetry. My students who speak languages other than English often use this assignment as an opportunity to show off

an especially meaningful text in their native language. For the class as a whole, it's a chance to celebrate the incredible creativity of writers across languages and to explore the differences across languages, and what those differences might mean. On the day the writing assignment is due, we share our chosen texts with the class and discuss what we learned from looking at them in this way.

For my contribution to the class discussion of “untranslatable texts,” I bring Lewis Carroll’s poem, *Jabberwocky*. Though I am aware that this poem in fact has many translations (Lim) and share some of these with my students, it provides an interesting discussion point: what does it mean to “translate” a text whose words are nonsense? This discussion creates a playful opening to the exercises Hancock gives in the beginning of Chapter 2 in *Meaning-Centered Grammar*. We start with the opening line from *Jabberwocky*: “’Twas brillig, and the slithy toves / Did gyre and gimble in the wabe” (Carroll 95).

Then I ask the students a series of questions based on the ones Hancock offers (17-19):

- What was being done?
- Who was doing it?
- How many of them were there?
- Where was it done?
- When was it done?
- What were the toves like?

Students typically agree on their answers, and then I ask: how do you know? What about the sentence is telling you this? I find that using our exploration of “untranslatables” as an entry point actually serves to make students more prepared and curious to figure out how this sentence is doing what it is doing.

As Hancock points out, these kinds of questions, and the resulting discussion, serve to highlight the types of cues that exist to signal the grammatical role of a particular lexical item, the roles played by function words, and even the ways in which sounds can

sometimes be associated with meanings (for example, “slithy” tends to generate an impression somewhere between “slimy” and “slithery”). These also highlight the importance of word order within English; as a language with relatively minimal morphological marking for grammatical role, the determination of “who did what to whom, and how” depends almost exclusively on the order in which the words appear in the sentence.

After we’ve discussed the grammatical and lexical cues in the *Jabberwocky* opening line, I then ask students to use those cues to create their own *Jabberwocky*-style sentences, which they share with the class. We discuss what these might “mean,” and how it is that we know that, and for those students who are familiar with another language, how they might “translate” them into that language; students typically have a lot of fun with this. A playful activity like this can serve as an excellent entry point for further, more formal discussions of grammar in a writing class. If we can keep that same spirit of playful, curious questioning, we can help our students make sense of and learn all sorts of grammatical concepts.

Playful exploration of the grammars of other languages can also be used to teach concepts other than grammar. Students are typically fascinated when they learn about the “neat tricks” that other languages have within their grammar, and these can become a jumping-off point for lessons that highlight important writing concepts. One “trick” that especially captures my students’ attention when reading about linguistic relativity is the phenomenon of evidential-marking. Within linguistics, evidentiality refers to the indication of the source of evidence for a particular statement; many languages have evidential-marking systems within their grammar, such that in order to make an utterance, the type of evidence one has to support that utterance must be grammatically marked, often in the form of the verb. My students first encounter evidentiality in an excerpt from Guy Deutscher’s book *Through the Language Glass*:



[S]ome languages, like Matsigenka in Peru, oblige their speakers, like the finickiest of lawyers, to specify exactly how they came to know about the facts they are reporting. You cannot simply say, as in English, “An animal passed here.” You have to specify, using a different verbal form, whether this was directly experienced (you saw the animal passing), inferred (you saw footprints), conjectured (animals generally pass there that time of day), hearsay<sup>1</sup> or such. If a statement is reported with the incorrect “evidentiality,” it is considered a lie. (Deutscher, “Does Your Language Shape How You Think?”)

Students often boggle at this, sometimes while lamenting that English lacks these “exciting” features; they can’t imagine how someone could possibly keep track of this information while speaking. As a teacher, I see this as the perfect moment for another little translation game.

Here’s what I do: I provide a pair of claims, in the form of ordinary English sentences like the ones below. I then challenge students to think about how, using only the tools available to them within English, they could convey that same message with the different evidence-statuses that they have just read about in Deutscher’s article: direct observation, hearsay, inferred, or conjectured. Here is a pair of sentences I’ve used:

- (1) “A fox ate the chickens.”
- (2) “Mandarin speakers think about time differently than English speakers.”

And here are some examples of how students have approached this task for the first sentence:

- (1) “A fox ate the chickens”
  - a. **Direct observation:**
    - i. “I saw the fox eat the chickens.”

- ii. “The fox ate the chickens right before my very eyes!”
- b. Hearsay:**
  - i. “I heard that a fox ate the chickens.”
  - ii. “According to Sam, a fox ate the chickens.”
- c. Inferred:**
  - i. “These fox paw prints amongst the torn, bloody feathers mean that a fox must have eaten the chickens.”
  - ii. “Based on the paw prints found at the scene, I conclude that a fox must have eaten the chickens.”
- d. Conjectured:**
  - i. “I’m guessing that a fox ate the chickens, because that’s something foxes do.”
  - ii. “Perhaps a fox could have eaten the chickens.”

Students quickly notice that unlike languages where evidential information is signaled grammatically, English signals this information lexically (via distinctions like “I saw” vs. “I heard” vs. “I’m guessing”; “according to” vs. “based on”; “perhaps” vs. “must have”), and further notice that it is actually not all that unusual for a sentence in English to convey information about the speaker’s source of evidence. This activity is especially useful practice for students who come from language backgrounds other than English; in particular, it helps them learn the phrases of English that do the specific job of marking evidence status. But I find it to be a task that often proves just as challenging to native English speakers who haven’t experienced thinking about their language in this way before. These students benefit just as much from practice with the strategies used to introduce evidence in writing, and the exercise can help raise their awareness of the kinds of overgeneralizations that can result when this is not done carefully and thoughtfully. As a result, this activity can have an equalizing effect in the classroom,

where *all* students are working together to figure out how to make English do what they want and need it to do. My role as the instructor is simply to guide them in their exploration, and when needed, to offer the insights I have as a speaker of English and an experienced user of it in the academic context.

Next, let's look at what can happen when students try the same exercise on (2), a claim more similar to the kind they might encounter in a published research article. This sentence often proves trickier for students, but at some point, without fail, it clicks: a student will realize that we do have nice little bits of language to signal the status of evidence for claims like these, and that this is in fact something that is expected within academic writing. Here are some solutions synthesized from those generated by students in my classes:

(2) "Mandarin speakers think about time differently than English speakers."<sup>2</sup>

**a. Direct observation:**

- i. "In this experiment, we observed that Mandarin speakers responded differently to questions about time than English speakers did." (but is this "direct" observation?)
- ii. "I think differently about time when I'm using Mandarin than when I'm using English." (this type of response is often offered by Mandarin-English bilingual students.)

**b. Hearsay:**

- i. "According to Boroditsky (2001), Mandarin speakers think about time differently than English speakers."
- ii. "Mandarin speakers think about time differently than English speakers (Boroditsky, 2001)."

**c. Inferred:**

- i. "Based on the difference in reaction time,

we can infer that Mandarin speakers are thinking differently about time than English speakers.”

- ii. “The evidence from this experiment suggests that Mandarin speakers think differently about time than English speakers.”

**d. Conjectured:**

- i. “Because of the differences in the metaphors each language uses to talk about time, it seems possible that Mandarin speakers would think differently about time than English speakers.”
- ii. “It is hypothesized that Mandarin speakers think about time differently than English speakers.”

As my students discover, a phrase like “evidence suggests that ...” lends itself to conveying an inferential claim, and a phrase like “it seems possible...” can suggest conjecture, while an in-text citation of a particular scholar’s article clearly signals that a claim is based on something the writer was told by another person, or in other words, hearsay. As for whether we can ever truly claim to have directly observed something about the way people think, or whether that kind of claim is inherently based on an inference, that’s a debate I’ll leave to the epistemologists, but the resulting class discussion about what kinds of things “count” as evidence in different types of contexts, and how we can use language to signal the status of our evidence, is invaluable.

With this activity, we can capitalize on students’ fascination with the interesting characteristics of other languages and invite a discussion about kinds of evidence that is specifically tied to the way we use particular words and phrases in English to signal the use and status of evidence; this discussion can serve as an entry point to a very flexible, genre-sensitive approach to teaching citation

practices (Hylan). The discussion of citation becomes less about an abstract, arbitrary set of rules that students have to learn, and more about the kinds of evidence we rely upon in order to make claims, and the linguistic tools available for us to signal the status of that evidence, such as different types of reporting verbs and signal phrases. When students are asked to pay attention to the signal phrases that authors in a particular discipline use when talking about evidence, they can begin to use those authors' texts as models in a productive way (Devitt 45).

What I hope to have shown in this section is that centering a class around a theme relating to language creates engaging opportunities to discuss grammar, but playful exploration of language doesn't preclude discussions of other important writing-related topics. A course centered around language need not focus on the linguistic relativity debate. There are a number of other topics that could be engaging to first-year students, and I'll suggest a few here: constructed languages (also known as "con-langs"; examples include languages developed for science fiction and fantasy television shows, such as Klingon and Dothraki), internet language, language and the law, and language in advertising all strike me as themes that would have similar affordances in the classroom, in that each of these themes encourages close attention to the meaning-making details of language in particular contexts.

### **Bringing Playful Attention to Language into any Classroom**

Of course, not everyone will want to center their writing course around themes relating to language, and I would never argue that everyone should do so; it is truly possible to bring a playful approach to language into any classroom. My goal in this section is to explore how we can draw from research within linguistics, and particularly psycholinguistics, to create engaging in-class games and activities that help students develop the skills they need as writers no matter the course theme. I'll focus in particular on research relating to incremental, expectation-based language processing,

and discuss how these research findings can inform the way we talk with our students about grammar and about the expectations of readers.

The advent of eye-tracking has enabled researchers to more easily study both spoken and written language processing; with a moment-by-moment record of where the eye is fixated, we can draw conclusions about what an individual was attending to while listening to a particular word or sentence, or about the patterns of fixations while readers' eyes move across a sentence, and from these kinds of data, we can gain insights into how language processing unfolds over time.<sup>3</sup> One consistent finding across a wide variety of studies, from the level of recognizing words all the way through the comprehension of connected discourse, is that human beings process language *incrementally*: that is, we make use of linguistic information as it unfolds, rather than waiting for a particular utterance to be completed, and this incremental processing is informed by all kinds of other sources of information as well, including our knowledge about the probability of particular lexical items and syntactic constructions, about the real-world affordances of the things being described, and about the knowledge and probable intentions of the person communicating with us (Crain and Steedman, Altmann, Dahan and Tanenhaus, Chambers et al., Fine et al., and many, many others).

### **Expectation-based Language Processing: Applications for Teachers of Writing**

What the research described above suggests is not just that we process language incrementally, but that we are incrementally generating expectations about what will come next based on what we have already processed and what we already know. This is part of what allows us to process language so quickly. But things can go awry when expectations are violated, and this is where we can have the most productive fun with our students.

A canonical example of expectation-violation can be found in something linguists call a “garden-path sentence,” and the most

canonical garden-path sentence of all is probably this one, which I introduce to my students using a series of slides that reveal one word at a time:

(3) “The horse raced past the barn fell.”

(McRae and Matsuki 51)

If you weren’t already familiar with this sentence, when you read it you likely experienced precisely what my students do: a moment of surprise and confusion when attempting to process the final word, “fell.” What happens when we process this sentence is that the material early in the sentence leads us to expect a particular syntactic construction, one in which what is being described is the action the horse took. And this expectation seems to be met: we find out that it raced past the barn, or so we think. But then we hit the word “fell,” and our expectation is violated. We have to reanalyze the sentence, and instead interpret it as one describing something that happened to a specific horse (namely, the one had been raced past the barn); *that* horse fell. The grammatical structure here is what we call a “reduced relative clause”; the unreduced form would be “The horse that was raced past the barn fell.” This reinterpretation slows us down; evidence from eye-tracked reading (e.g. Frazier and Rayner, among many others) shows that readers make regressive eye movements, indicating re-reading, when they encounter material incongruous with the expectations they formed based on earlier material.

This isn’t simply about the grammatical form of the sentence; here is another example of a reduced relative clause, with a grammatical form exactly identical to the sentence in (3):

(4) “The landmine buried in the sand exploded.”

(McRae and Matsuki 51)

This sentence doesn’t result in the same kind of expectation violation; it is not as easy to interpret “the landmine” as something

that can bury things in sand as it is to interpret “the horse” as something that can race past barns, so we aren’t misled in the same way. When I introduce (4) to my students word-by-word, just as I introduced (3), they don’t have the same moment of surprise and confusion, and this creates a wonderful teaching opportunity. I first help the students see that the sentences have the exact same number of words and the exact same structure, and then I ask them: why is one confusing, and the other not? This leads us directly towards talking about the sentences and the words within them in functional terms, such as agency, and how those functional roles can be realized within a sentence.

The phenomenon of garden-path sentences is often quite exciting for students, who sometimes notice that they’ve encountered examples somewhat like this in the form of newspaper headlines; these often invite particular misreadings as a result of the ambiguity created when function words are elided and other words can be read as either nouns or verbs. The linguistics blog *Language Log* collects these under the heading of “crash blossoms” (the background for this name is explained by Zimmer), and they can be quite fun to explore with students.

I challenge my students to choose an example of a funny misleading headline and rewrite it in two different ways: the first should be a version that unambiguously communicates the funny mis-reading, and the second should be a version that unambiguously communicates the non-funny intended reading. Then, we talk about what makes those two versions different—what words did they add to each version and what other changes did they make, and how are those things working to create the different meanings? Take, for example, a headline like this:

- (5) “EU rules ‘mean children can’t get life-saving cancer drugs.’”<sup>4</sup>



The darkly funny misreading, in which “mean children” are the specific children who aren’t going to get medicine, can be unambiguously indicated with a sentence like this:

(6) “The EU has ruled that ‘mean children can’t get life-saving cancer drugs.’”

Whereas the intended meaning, in which children in general can’t get medicine because of the EU’s rules, can be unambiguously indicated with a sentence like this:

(7) “The EU’s rules ‘mean that children can’t get life-saving cancer drugs.’”

Note the changes required: we can unambiguously signal that “rules” is behaving as a verb by changing it to the present-perfect form (“has ruled”), and we can unambiguously signal that “rules” is behaving as a noun by marking it as “The EU’s”; we can further clarify our meaning by changing where “that” is placed within the sentence. Garden-path sentences and “crash blossoms” create a playful context in which we can discuss how different types of grammatical constructions are built. Students who come to class not knowing what a “relative clause” is can play with examples like the ones given in (3) and (4), and end up discussing the kinds of contexts that could support the use of a reduced relative clause and the kinds that can’t. And students who try to turn “crash blossom” headlines into unambiguous sentences get to practice working with the parts of the English language that are used to clearly signal “who did what to whom.” This low-stakes play with language helps students practice paying attention to the meaning-making details of language that they’ll need to effectively deploy in their own writing, and it also helps students and instructors develop a shared understanding and vocabulary for talking about issues relating to ambiguity and sentence structure.

This kind of play with funny misleading sentences can also invite

discussion of reader expectations more generally. Learning about readers' expectations and how to meet them is critical work for student writers; without an understanding of reader expectations, it will be challenging for students to ever move from their typical first drafts full of writer-based prose to a reader-directed final draft.

### **Taking Reader Expectations Beyond the Sentence Level**

Another ambiguous sentence that students can play with comes from the computational linguist Terry Winograd, whose "Winograd Schemas" have actually been proposed as a potential tool for testing artificial intelligence (Levesque et al. 554-557). A "Winograd Schema" is a simple sentence or pair of sentences that contain(s) some sort of ambiguity; in these schemas, the "correct" interpretation should be obvious to us, as human beings, but requires a level of understanding of language and the world that is not easy to "hard-code" into a computer. One such example is especially useful for illustrating the extent to which our understanding of words like pronouns depends not just on the grammatical structure of a sentence, or the syntactic role being played by the pronoun, but on the underlying "story" that is unfolding in the sentence:

(8) "The city councilmembers refused the demonstrators a permit because they [feared/advocated] violence."<sup>5</sup> (Winograd 33)

I generally present the sentence in (8) first with the verb "feared," and ask students to tell me what the pronoun "they" refers to. Students often don't even realize at first that this sentence is technically ambiguous; in theory, "they" could refer equally well to either "the city councilmembers" or "the demonstrators," since both are plural, but students unanimously take "they" to refer to "the city councilmembers." When I ask them why, some point to the fact that "the city councilmembers" is in the subject position of the sentence; that's a valid point, and research does suggest that, all things being equal, subjects are more salient as potential pronoun

referents (e.g. Givón, Grosz et al.), and people prefer to resolve pronouns in ways that preserve syntactic parallelism (e.g. Stevenson et al.), which in this case would also lead to a subject-preference. But other students point to the fact that it simply “makes sense” this way: obviously, if the city council was fearing violence, they would want to deny a permit to demonstrators.

Then, I switch the verb to “advocated,” and ask my students what they think the pronoun “they” refers to now. For this version of the sentence, they unanimously take it to refer to “the demonstrators.” The students who previously thought that their interpretation had only to do with which item was in the subject position of the sentence suddenly start to agree with the ones who focused on sense-making: it actually “makes sense” that if the demonstrators advocated violence, the city council would want to deny them a permit. This example powerfully illustrates for students the degree to which our interpretation of connected discourse depends on our understanding of the underlying “story” being told.

One particularly interesting theory of discourse interpretation holds that coherent discourse is structured by question-answer relationships; this is the “Question-Under-Discussion” or QUD model of discourse (Larsson, Roberts). For instance, in the example in (8), we can take the second clause to be answering the question of “why did the city councilmembers deny the demonstrators a permit?” raised by the preceding clause (and signaled explicitly by “because”). In their recent paper, “Evaluating an Expectation-Driven Question-Under-Discussion Model of Discourse Interpretation,” Andrew Kehler and Hannah Rohde use self-paced reading experiments to demonstrate that readers do incrementally generate expectations about the underlying question they expect upcoming material to answer, such that what the reader reads in the initial clause influences expectations that shape pronoun interpretations in the following clause (just as we saw in the example in (8)).

Vande Koppel’s *Clear and Coherent Prose* explains coherent discourse using an approach rooted in functional linguistics, with

exercises aimed at helping writers to identify sentence topics and guidelines for creating clear and coherent topical progressions. One guideline offered by Vande Koppel is to put information that is familiar to the reader before information that is new to the reader; thus the principle of “given-before-new” (Clark and Haviland; Halliday; Prince; Chafe; Rossen-Knill). Below, I describe a pair of playful activities that draw upon both the expectation-based framework and the functional linguistics principles described above, and serve to bring these ideas to life for students.

The first playful activity asks students to generate a story, one sentence at a time, such that one student picks up the story from wherever the previous student left it; I simply type each sentence into a shared document, projected onto a screen, as each student adds their contribution. Students often delight in taking the story in silly, unexpected directions. But no matter how bizarre they make their story, it is almost always at least mostly coherent because the vast majority of the time, without even realizing that this is what they are doing, students will choose as the topic of their sentence something that has already been mentioned in the story; that is, they intuitively adhere to the principle of given-before-new.

This creates an excellent opening for applying the “concept first, jargon second” approach (McDonnell et al. 18). Once I’ve helped them notice the pattern in their story, I tell them that this is a known information-organizational principle called “given-before-new,” and I introduce the concept of “sentence topics.” We then use the sentences in their story as our “toy” sentences for experimenting with ways of modifying the sentence topic, drawing upon exercises from Vande Koppel (39-46). Students are fascinated when they see how changing what is in a sentence’s topic position “breaks” the coherence for the story being told, even though the same information is being conveyed in the sentence; this can be highlighted by reading the story aloud each time a sentence is changed. The students’ typical penchant for taking the story in funny, “unexpected” directions also provides the opportunity to more carefully investigate what made a particular story turn

“unexpected,” and probe what they would have expected instead, and why.

The second playful activity builds upon the findings from Kehler and Rohde, and uses a game to help students better understand the sorts of expectations their sentences are generating in the minds of their readers as they read<sup>6</sup>. As writers, this is precisely the sort of information that we normally don't have, because even if we have the good fortune of receiving feedback from a helpful reader, they generally are not narrating for us every implicit expectation that pops into their head while they read. But when we turn a paragraph into a “guessing game,” we can make these expectations explicit. To do this, I ask students to choose a particular paragraph from a paper they're working on and read it aloud to a partner, one clause at a time.<sup>7</sup> At the end of each clause, their partner's job is to write down the question they expect the next clause to answer, and share it with the writer. Then the writer reads their next clause, and evaluates along with their partner whether it actually answered the question the partner wrote down or not, and why. To make it more game-like, I tell them that every time the following clause answers their partner's question, they get 1 point. Before moving on, they have to talk through what led the partner to write down the question they wrote down, and what it is about the following clause that does or doesn't answer it in the way they expected. Then they repeat the exercise for the next clause, and so on; after they've made it through a paragraph, they swap roles, so that each student has a chance to play the role of both the writer and the guesser. They often have quite a bit of fun with this; when their partner guesses correctly, a cheer often erupts, and when the partner guesses incorrectly, there's usually a bit of laughter when the pair realizes what must have led them astray.

At the end, they tally up how many points they got and divide that by the number of clauses in their paragraph to arrive at a final score. We then choose one of the highest and lowest scoring paragraphs, and the corresponding questions generated by the partners, to discuss as a class. Interestingly, there is typically a lot

more variation in the kinds of questions that classmates guess for the low-scoring paragraph than for the high-scoring one. What that suggests to me is that the students who end up with high-scoring paragraphs in this game are not just doing a better job of meeting the expectations that their writing has set for the readers, but of generating writing that sets clear expectations in the first place; this is an observation I'd be very interested in exploring further. But no matter what, the discussion about what's making the high-scoring paragraphs work and what's making the reader get led astray in the low-scoring paragraphs is one that yields fantastic results. Students often refer back to this particular game when we are working together in individual conferences on a "tricky" paragraph; it's something that seems to really stick for them.

### **Final Recommendations**

Mary Ehrenworth and Vicki Vinton argue that grammar can be part of inquiry-based instruction more generally; as they put it, by exploring grammar, students can engage in "inquiry; thinking; the forming and testing of hypotheses; . . . the ability to reflect and articulate what has been learned; and the ability to transfer knowledge and understanding from one situation to another" (31). I wholeheartedly agree. The activities I described in this paper are really only the tip of the iceberg when it comes to creating playful strategies for encouraging students to get curious about language. In essence, each activity I've described in this paper embodies a low-stakes, engaging, concept-first way of getting students to ask "What is this bit of language doing, and what about it is making it do that?"—precisely the sort of questions we want students to be able to ask and answer if they are to gain the kind of understanding of their linguistic choices that will help them to wield English grammar effectively in their own writing.

I close this paper with a recommendation for writing teachers: explore the psycholinguistics literature, especially studies of the kinds of processes involved in reading and language comprehension. With a stronger understanding of what is going on in readers' minds

when they read, we can help our students learn to write more effectively for those readers. But another lovely thing can come from reading the research in psycholinguistics: the stimuli used in these experiments are beautiful examples that can serve as productive “toys” in the hands of the students in your classroom—indeed, that is where many of the example sentences in this paper came from. Speaking as someone who once created stimuli for her own psycholinguistic experiments, there is a great deal of linguistic creativity required in the development of experimental materials. Researchers are often trying to create examples that would allow them to test the impact of particular subtle distinctions in language, and by encouraging your students to play with examples like these, you can help them begin to explore and understand those kinds of subtle distinctions, too. Language is full of incredible delights, and by showing our students how to play with it productively, we can engage them to think deeply about things like grammar and word choice, about what makes sentences feel connected and coherent, and even about things like citation and evidence in different genres of writing. So go forth and play!

### Notes

<sup>1</sup>In fact, Deutscher’s description is not quite accurate—there is not an explicit grammatical marking in Matses for hearsay that is separate from direct observation (in essence, what’s directly observed is the reported speech relating to the event). The “double-tense” system requires Matses speakers to report not just when an event occurred, but also how long ago the evidence the speaker has for that event was received (Fleck 603), meaning that in the case of hearsay evidence, speakers would need to mark tense both for the time of the event and the time at which the speech they are reporting about it occurred.

<sup>2</sup>This particular claim is from an article I assign to my students: Lera Boroditsky’s 2001 article, “Does Language Shape Thought? Mandarin vs. English Speakers’ Conceptions of Time.” The paper is incredibly clearly and engagingly written, and lends itself well to serving for students as an entry point into reading scientific research articles.

<sup>3</sup>A nice overview of the current state of research relating to eye movements in reading can be found in Vasishth et al.

<sup>4</sup>This headline was drawn from a *Language Log* post: <languageolog ldc.upenn.edu/nll/?p=10380>.

<sup>5</sup>The original actually uses “councilmen” rather than “council members”; I’ve altered the presentation to eliminate the gender bias.

<sup>6</sup>This exercise could also be done by simply working through one sentence at a time, rather than one clause at a time, which would be easier for students who have not already discussed the distinction between clauses and sentences. Some of the interesting within-sentence action will be missed, but I think it’s still valuable when done this way.

<sup>7</sup>I frame this activity around reader expectations; for an approach to the same game rooted in the Principle of Relevance, see Rossen-Knill’s “Flow and the Principle of Relevance” paper.

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