

WRITING SAMPLE PORTFOLIO

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* Samples of IDEO projects & recent brand identity work cannot be included here, but are available upon request.

SECONDARY LEVEL EDUCATIONAL WRITING

Writing Workshop (*High School Literature Textbook*)

Assignment: Short Story Writing Workshop for Grade 11.

Client: Holt, Rinehart and Winston/Harcourt Education - Austin, TX.

Writing Workshop

Write with a Purpose

Write a short story that tells a suspenseful, mysterious tale.

[Passage call-outs]

[A] Poe uses the surrounding darkness of the chamber to symbolize both the narrator's isolation and the mysteries of the house that remain hidden to him.

[B] The details of the setting throughout the paragraph and Poe's description of the gloom create a dark, ominous atmosphere in the scene.

[C] Poe uses the descriptions of Usher's behavior and physical appearance to create a strong initial impression of the character.

Writing a Short Story

Think as a Reader/Writer In this collection, you've seen and practiced some key techniques that fiction writers use to build a narrative. Now it's time to use those techniques in a short story to create elements such as atmosphere, symbolic meaning, and strong characterization.

The following passage from Poe's "The Fall of the House of Usher" shows how a writer weaves in these elements while moving the narrative forward. In a short story, it is important for each scene to build the story's overall effect by using different techniques to create these elements along the way.

The room in which I found myself was very large and lofty. The windows were long, narrow, and pointed, and at so vast a distance from the black oaken floor as to be altogether inaccessible from within. Feeble gleams of encrimsoned light made their way through the trellised panes, and served to render sufficiently distinct the more prominent objects around; the eye, however, struggled in vain to reach the remoter angles of the chamber, or the recesses of the vaulted and fretted ceiling. [A] Dark draperies hung upon the walls...An air of stern, deep, and irredeemable gloom hung over and pervaded all. [B]

Upon my entrance, Usher arose from a sofa on which he had been lying at full length, and greeted me with a vivacious warmth which had much in it, I at first thought, of an overdone cordiality...A glance, however, at his countenance, convinced me of his perfect sincerity. We sat down; and for some moments, while he spoke not, I gazed upon him with a feeling half of pity, half of awe. Surely, man had never before so terribly altered, in so brief a period, as had Roderick Usher!...The now ghastly pallor of the skin, and the now miraculous luster of the eye, above all things startled and even awed me. [C]

Writing Workshop Short Story (continued)

Prewriting

Consider Audience, Purpose and Mood

A short story should be short enough for your readers—or **audience**—to complete in one sitting. In this story, your purpose should be to provide the audience with a mysterious or suspenseful experience. You also need to consider what kind of a **mood** would be appropriate for a story with this purpose. In this collection's gothic stories, the mood enhances the suspense.

Explore Story Ideas

The eerie tales in this collection are good examples of stories that can be boiled down to an intriguing “What if?” premise. *What if a minister suddenly began wearing a dark veil? What if a house could drive people to madness?* Using your imagination to explore different “What if?” scenarios is a good way to brainstorm story ideas. Since your purpose is to create a suspenseful story, try to think of “What if?” questions that pose a dark or imaginative mystery.

Imagine Characters and Setting

Once you have a story idea, imagine the **characters**—the fictional individuals that will appear in the story. Short stories usually focus on one or two main characters and sometimes include a small number of secondary characters. In your writing, use different **characterization** techniques to bring these individuals to life. Some methods include:

- Providing detailed physical descriptions to reveal key character traits.
- Using dialogue to express a character's personality and point of view.
- Describing a character's behaviors—and sometimes their thoughts—to depict their feelings and reactions.

In addition to the characters, your story idea requires a **setting**—the time and place in which the story occurs. You need to determine where and when each scene takes place; limiting your setting to one or two places will help to keep your short story focused. In stories of mystery, a suspenseful **atmosphere** is often created through the setting. When you choose your setting, make sure it will allow you to create the kind of atmosphere that you want for your story.

A Good Short Story

- creates a unified overall effect
- is written from a clear, well-defined point of view
- involves interesting characters that are depicted with depth
- creates a detailed setting that provides a strong atmosphere
- uses stylistic devices to enhance descriptions
- initiates the action with a problem or a mystery
- uses the plot to move the action forward toward its climax
- builds tension and suspense by introducing conflicts and complications
- concludes by resolving the problem or mystery (or by providing a surprise ending instead of a clear resolution)

Writing Workshop Short Story (continued)

Plot Your Story

Using your characters and setting, develop a **plot** in which the sequence of events unfolds in a suspenseful way. A basic plot can be broken into three simple parts: beginning, middle, and end. To build suspense in a mystery, the beginning presents the mystery or problem; the middle heightens the tension through conflict or deepening trouble; and the end provides a surprise twist or reveals the mystery in a dramatic way.

While you are creating the plot, it is also a good time to consider what **symbolic meaning** you want to develop in your story. Consider what the elements and events in the story might express about larger ideas and themes. Make sure your plot reflects these ideas in symbolic ways.

Choose Point of View

The perspective from which a writer tells a story is called its **point of view**. You can write your story from one of these three points of view:

- **First person** The narrator is a character in the story, describing events and expressing thoughts from that character's point of view only.
- **Third person (limited)** The narrator is not a character in the story, but tells events from the perspective of one of the characters, describing only what that character knows and experiences.
- **Third person (omniscient)** The narrator is not a character in the story and can present events from any perspective, describing the thoughts and feelings of any character.

Consider Style

Your style is how you express yourself in writing. Language choices and sentence structure are two key elements that contribute to style. You can enhance your expression through the use of stylistic devices such as **figures of speech** (such as similes and metaphors) and **imagery**. Create a style that supports the story's mood and atmosphere.

Writing Workshop Short Story (continued)

Drafting

Write a First Draft of Your Short Story

As you write, create the story's overall effect through the different literary elements, such as atmosphere and characterization. Use your notes and plot chart to guide your writing as you build the suspense. If you're looking for more guidance on how to structure your tale, here are some story elements that you can focus on in each part:

- **Beginning** Establish your main characters and setting right away; draw the reader into your mystery by creating an atmosphere of suspense in the opening. Present the characters with a mystery or problem early in the story so you can begin building the tension.
- **Middle** As the characters try to unravel the mystery or solve the problem, introduce forces or circumstances that are working against them. Heighten the suspense by increasing the conflict or deepening the trouble that the characters' face. Alter or intensify the atmosphere to match these events as they unfold.
- **End** Bring the tension and suspense to a climax as the story approaches its end; present the characters with a final challenge that leads to the conclusion. Complete the story by providing a surprise twist or revealing the mystery. Use your ending to provide the reader with one last chill or thrill.

Build Atmosphere through Detailed Description

A story's atmosphere can transform an interesting plot into a suspenseful, mysterious experience. The atmosphere is built through **detailed descriptions** that engage all of the reader's senses. By addressing each aspect of the story in detail—sights, sounds, scents, textures, tastes—you envelop the reader in the atmosphere and create the feeling of the narrative. As you write, take the time to include detailed descriptions in each scene; use these descriptions to maintain and change the atmosphere throughout the story.

Writing Tip

- Use **foreshadowing**—hinting at what will happen later—as a way to set-up climactic events, and to provide readers with clues about the mystery.
- Avoid making your plot too complicated. Keep the plot lean and use the conflict to create tension and suspense.

Writing Workshop Short Story (continued)

[Student Model call-outs]

[A] The writer establishes the setting in the opening sentences.

[B] The main characters are introduced and the point of view are determined right away.

[C] The writer presents a mystery in the beginning of the story.

[D] The scene includes details about mood and setting that build the atmosphere. The writer also uses figurative language to enhance the description.

[E] Physical details are used to help bring the character to life.

[F] The writer builds the suspense by darkening the atmosphere.

Student Model

Under the Barn

by Emily Mattie

The empty, weather-worn barn stood before me at the edge of my uncle's field. [A] As my brother and I approached it in the sunset, the looming structure cast a long, dark shadow over us. [B] We'd heard the rumors about a hidden door and dark secrets, but it had all seemed ridiculous until now. [C] Now I had an eerie feeling, because I sensed we weren't alone. The way the wind blew through the barn, it felt like it was breathing. [D] I looked at my brother, Stan, who was older and bigger. He had muscular arms and a mean face, but when he turned toward me, I could tell that he was scared too. Suddenly Stan seemed small and weak. [E] The sun fell lower and the barn grew darker. Neither of us moved. [F]

Grammar Link

Using Independent and Subordinate Clauses

Good writers use different **clauses** to vary sentence structure. This helps to create a flow and keep the writing interesting. A clause is a group of words that contains a verb and its subject. Detailed descriptions often require the use of multiple **clauses**. Here are some basic rules to keep in mind when using clauses to vary sentence structure.

- An **independent** (or main) **clause** expresses a complete thought and can stand by itself as a sentence. "*The sun fell lower.*"
- A **subordinate** (or dependent) **clause** does not express a complete thought and cannot stand alone as a sentence. "*The way the wind blew through the barn,*"
- When a sentence contains two clauses, you can use a **subordinating conjunction** (such as, *although, as, because, since, unless, until, when, while*) to show the relationship between the clauses. "*Now I had an eerie feeling, because I sensed we weren't alone.*"

Writing Workshop Short Story (continued)

[Revision Model call-outs]

[A] (add) empty, weather-worn

[B] (replace) my brother and I

[C] (add) in the sunset

[D] (replace) because

[E] (elaborate) The way the wind blew through the barn, it felt like it was breathing.

[F] (elaborate) He had muscular arms and a mean face, but

Revision Model

Under the Barn by Emily Mattie

The [A] barn stood before me at the edge of my uncle's field. As ~~we~~ [B] approached it [C], the looming structure cast a long, dark shadow over us. We'd heard the rumors about a hidden door and dark secrets, but it had all seemed ridiculous until now. Now I had an eerie feeling, ~~and~~ [D] I sensed we weren't alone. [E] I looked at my brother, Stan, who was older and bigger. [F] When he turned toward me, I could tell that he was scared too. Suddenly Stan seemed small and weak. The sun fell lower and the barn grew darker. Neither of us moved.

Analyzing the Revision

1. How does the revision of the first two sentences solidify the opening?
2. What type of word does the writer use as a replacement in the fourth sentence? How does it change the sentence?
3. What is the effect of new sentence that the writer inserts after the fourth sentence?
4. What is the purpose of the details that the writer adds about the brother near the end?

Writing Workshop Short Story (continued)

Proofreading and Publishing

Proofread

Before final publication of their stories, professional authors often examine galley proofs to make sure that their stories are error-free. You also should look at the final draft of your story, or its “galley proof,” to be certain that it doesn’t contain distracting mistakes. To help you catch mistakes or problems, you can also exchange stories with a classmate and proofread each other’s work.

Publish

A short story is more than just a school assignment. It is a creative way to share your imagination and ideas with readers. One of the most exciting parts of writing a story is having it read by others. Try a few of these publishing suggestions.

- Mail or e-mail your story to interested friends or relatives and ask for their responses. After gathering enough feedback, you may want to revise and polish your story even further based on the responses.
- Exchange a set of your class’s short stories with a high school in another country. Discuss what is gained and lost in the translation between cultures.
- Illustrate your story, and submit it to your school’s literary magazine or newspaper.
- Submit your story to a short story contest. Ask a librarian to help you identify several.
- As a class, develop criteria for evaluating short stories. Then, swap stories with a classmate and write brief reviews of one another’s stories, using the criteria that you developed.

Reflect

How did writing your own short story help you to better understand an author’s process?

SECONDARY LEVEL EDUCATIONAL WRITING

Author Study (*High School Literature Textbook*)

Assignment: Author Study Wrap Up for Walt Whitman Collection for Grade 11.

Client: Holt, Rinehart and Winston/Harcourt Education - Austin, TX.

Wrap Up

Author Study: Walt Whitman

Writing Focus

Think as a Reader/Writer

Analyzing a Writer’s Language Because Whitman’s **free verse** style does not employ formal rhyme and meter, he uses other elements to create a framework for each poem. **Repetition** and **catalogs** are two of the main tools that Whitman uses to structure his poems. His repetition of language and lines can appear in just a single stanza, or across an entire poem. Similarly, his catalogs can be contained to a single stanza (as a long, itemized list) or unfold across the whole poem (as a series of examples described in detail).

Review the collection of Whitman’s poems in this unit, and note the different ways in which he uses repetition and catalogs in each piece. Write an essay analyzing how Whitman uses repetition and catalogs to create structure within his free verse poems. In your essay, make sure to:

- compare and contrast Whitman’s use of these elements in several different poems.
- cite specific passages and lines from the poems you are comparing and use them to support your analysis.
- focus your discussion on why Whitman’s use of repetition and/or catalogs are an important part of each poem’s structure.
- begin with a paragraph that introduces the main points of your discussion, and conclude with a paragraph that summarizes them

What Do You Think Now?

Whitman’s poems include a variety of people engaged in a broad range of struggles—from everyday obstacles to life and death battles. Based on Whitman’s poems, what do you think is accomplished or achieved through these struggles?

CHOICES

Review

See Whitman’s Vision

This collection of poems gives a broad view of Whitman’s vision of America. Review the poems and note the key elements of his vision—the types of ideas, values, landscapes, and people that make up Whitman’s America. Briefly describe these key elements in a paragraph summarizing Whitman’s vision of America. Gather in a small group and share your paragraphs. Discuss how Whitman’s vision compares to your own views of America today.

Connect

Compare Witnesses to War

Whitman’s firsthand accounts of the Civil War—in both poems and prose—provide a view of history through the eyes of one of America’s greatest writers. Researching online or in a library, find a diary entry, letter, newspaper article or other primary source from the Civil War era. Compare the primary source to Whitman’s own accounts. What do they have in common? How are the content and style of the writing different? How do their views of the war compare? Write a short essay comparing and contrasting Whitman’s accounts with the Civil War era primary source that you found.

Extend

Write Your Own “Song”

In poems like *Song of Myself*, *When I Heard the Learn’d Astronomer*, and *A Noiseless Patient Spider* Whitman identifies himself with different elements of nature. Parts of the sky and earth, plants and animals—Whitman finds himself in all of these things. What element or elements of nature do you feel connected to? Write your own free verse poem in which you identify yourself with an element or elements of nature. Using Whitman’s style as a model, create lines with rhythms and cadences that are easily spoken. Practice reading it aloud, then share your poem with the class.

PRIMARY LEVEL EDUCATIONAL WRITING

Nonfiction Reader (*First Grade Reading Program*)

Assignment: Nonfiction student reader about manatees for Ocean Habitats Unit.

Client: Wright Group/McGraw-Hill Education - Chicago, IL.

<blind page 1, title page>

The Happy Manatee

by R. S. Reyes

<blind page 2>

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<a-head> Meet the Manatee

Manatees are gentle, playful ocean animals. These chubby, happy creatures swim slowly and enjoy relaxing.

[art spec: photo of single manatee, side-view of full body in underwater ocean setting]

[caption] The one-thousand pound manatee isn't in a hurry to get anywhere.

<pages 4-5>

Manatees spend most of their time in warm waters along the **coast**. They are usually found where **rivers** flow into the ocean. When the ocean waters cool off, manatees swim into the warmer rivers.

[art spec: photo of one or two manatees floating or swimming in river setting]

[caption] Manatees swim up river to find warmer water.

<page 6>

These **habitats** contain **underwater grass** that the manatees eat. Manatees also munch on leaves that float atop the water's surface.

[art spec: photo of manatee grazing on or floating just above underwater grasses]

[caption] Underwater grass is a manatee's favorite meal.

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<a-head> An Ocean Life

Even though they live in water, manatees are not fish. They are actually **mammals**. That means manatees need to breathe air just like you.

<pages 8–9>

Manatees poke their **snouts** out of the water to breathe. They usually do this about every five minutes. When manatees are sleeping they only need to breathe once every 20 minutes! Can you imagine holding your breath for 20 minutes?

[art spec: close-up photo of manatee snout or full manatee head poking out of the water]
[caption] Manatees must rise to the surface to breathe.

<pages 10–11>

Manatees have other **adaptations** for living underwater. They have a long upper lip that pushes food into their mouths. Their wide, flat tail is like a paddle and helps them swim. Their **flippers** can be used to hold their young or pick grass out of their teeth. Manatees also love using their flippers to play!

[art spec: photo of two manatees playing—should include at least one full body so that flippers and tail are visible; any setting will work]
[caption] Manatees know how to have fun!

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PRIMARY LEVEL EDUCATIONAL WRITING

Fiction Reader (*Fourth Grade Reading Program*)

Assignment: Realistic fiction student reader about Aral Sea for Ecosystems Unit.

Client: Wright Group/McGraw-Hill Education - Chicago, IL.

[blind p. 1; title page]

When the Water Goes Away

by R. S. Reyes

[pages 2–3]

A mix of frosty sand and salt crackled under Anna's feet as she stepped off of the bus. The chilly breeze stung her sunburnt cheeks and Anna pulled her wool cap down over her ears, trying to keep the warmth from disappearing into the early morning November air. Jake was already sorting through the pile of luggage heaped beside the bus. His weathered green duffel bag sat on the ground behind him, but he was still searching for hers.

"Mine's green too!" she hollered as she approached.

"They're all green!" Jake shouted and kept digging.

Anna laughed at the sight of Jake's skinny figure half-buried in the mound of green and brown bags, hopelessly trying to pick hers out of the bunch. She walked up behind him and tapped his shoulder.

"Allow me," she said, then leaned down, gave a quick scan, and yanked out her bag with one sharp tug.

Jake smiled shyly. "That's exactly the one I was going to pick."

"Of course it was," she replied with a smirk.

As she spoke, Anna could hear how her Russian accent had thickened since they'd arrived here in Uzbekistan. She had grown up in the nearby nation of Kazakhstan, and both countries were part of the Soviet Union when she was young. During high school, Anna's family moved to the United States. Over the years she had worked hard to lose her accent, but after a month of speaking Russian with the locals, it had returned in full.

[pages 4–5]

To be honest, Anna liked the sound of it—especially when she spoke English—and she thought that she might decide to keep the accent after all.

Anna had been in America for eight years and this was her first return visit, but she hadn't come back just to practice her Russian. After she and Jake had graduated together from the University of Illinois, they both signed up to become relief workers and help provide aid to the region around the Aral Sea—a body of water that lies between Kazakhstan and Uzbekistan.

The Aral Sea had once been the fourth largest lake in the world, but a doomed farming project caused the sea to begin drying up. In order to provide irrigation for a vast number of new cotton plantations in the 1960s, water from the rivers that fed the Aral Sea was diverted to nearby farmland. In the process, the Aral's waters grew more shallow, the shoreline receded, and the sea soon began to die. By the turn of the century, the Aral Sea had shrunk to less than half its former size and nearly 80 percent of the sea's water had vanished.

As the sea dried up, it left behind old seabeds that were now desert land covered in salt. To make matters worse, the salt was contaminated by industrial and fertilizer chemicals that had polluted the Aral's waters. Increased winds and sand storms spread the toxic salt throughout the region surrounding the dying sea. The water's disappearance had been devastating.

[ART: simple illustrated map of Aral Sea, detailing border of sea c. 1960 and current sea borders; could use different lines on same map or side-by-side comparison depending on space]

[pages 6–7]

During their time in Uzbekistan, Anna and Jake had witnessed the effects of the environmental disaster firsthand. They were here to help the local people with health problems that began when the sea started to vanish. The problems were mainly caused by a lack of clean water and by exposure to the toxic salt. Most of Anna

and Jake's time had been spent providing aid to pregnant women, who often suffered the most from the pollution.

For Anna, the work had been more emotional than she expected. The women that she helped often reminded her of her own mother or an aunt or someone else whom she had known back in her former homeland. On many nights during her stay she would lie in bed wondering what her life might have been like if she had grown up here, near the edges of the Aral Sea. Her home in Kazakhstan had been in the eastern part of the country, far from the Aral's coast, and only now did she realize how lucky she had been.

This morning, however, Anna's mind was occupied with the task at hand. It was their last day in Uzbekistan; tomorrow they would travel to the northern part of the sea in Kazakhstan to help restore the waters there. But today she and Jake had one last assignment on this southern edge of the Aral. They were to track down a pregnant woman, Maria Rostov, in the town of Moynaq and bring her to a relief hospital here in the city of Nukus.

[pages 8–9]

At the hospital they could provide Maria with clean water and special health care during the last few months of her pregnancy. This would greatly increase her baby's chances of survival, so it was important that Maria be transported to Nukus as soon as possible.

There was just one problem. Their bus had broken down yesterday during Anna's and Jake's trip back from their previous assignment in rural Uzbekistan. This delayed their return and now left them with only a single day to accomplish their task in Moynaq. If they were going to make it to Moynaq and back before tomorrow, they would have to work fast. Anna knew there would be no time to waste.

She threw the strap of her bulky green duffel bag over her shoulder and pointed to a dusty Jeep idling along the edge of the street. The driver waved.

"Looks like our ride's here," Anna said as she directed Jake's attention to their next vehicle.

“Not even time for breakfast?” Jake pleaded.

Anna reached into her bag and pulled out an energy bar and a bottle of water, then tossed them to Jake. “Use your imagination,” she said. “You can pretend it’s an omelette and orange juice.”

Jake laughed and shook his head, but before he could muster a clever response, Anna was already marching full stride toward the Jeep. He tucked his breakfast in his pocket, followed her lead, and in a moment they were off.

[page 10–11]

Anna and Jake kept their eyes focused on the mostly dry landscape as the Jeep sped along a sandy line toward Moynaq. The trip took over three hours, and the closer they got, the more desert-like the scenery became. Their drive took them alongside the path of the Amu Darya River, which had once poured its waters into the Aral Sea, but no longer. Those waters had been used to irrigate local farms. When the desert spread, those farms also began to struggle and die. The river’s delta used to spread wide and green across the land as it ran toward the sea’s edge. Now the view was dominated by sand-strewn plains scattered with low scrub brush. A setting that for centuries was filled with birds and other wildlife had grown silent and almost empty.

Anna found it hard to believe that this had all been lush and wet once upon a time. Growing up, she had heard the stories about Moynaq—a far-away fishing village that once bustled beside the Aral Sea, then became a ghost town at the edge of a desert. But seeing this for herself now brought those stories to life.

As they finally approached the town’s entrance, Anna closed her eyes and tried to imagine what it might have looked like as booming seaside village. She pictured strong-armed fishermen hauling bursting sacks of fish to a cannery, giddy tourists with beach gear heading toward the shore, boats being tied up by gruff men at the end of a dock.

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Then Anna opened her eyes. It was a sad and lonely sight.

HUMAN-CENTERED [INSTRUCTIONAL] DESIGN

Design Strategy (*Healthcare Consulting*)

Assignment: Redesign & Write toolkit for Intensive Outpatient Care Program (IOCP).

Client: California Quality Collaborative - San Francisco, CA

Final Conclusions from IOCP Field Interviews

During the first 2 weeks of the IOCP Toolkit redesign process, field interviews were conducted with:

- internal CQC sources
- a Wave 1 IOCP participant
- a Wave 2 IOCP participant
- a non-participant interested in the IOCP

The field interviews led to the conclusion that the redesigned Toolkit should serve the following primary purposes:

- ***Clearly define how an IOCP differs from an institution's current practices.***
- ***Demonstrate the broader value of implementing an IOCP.***
- ***Provide anecdotal examples of previous IOCP successes.***
- ***Provide a clear & easy-to-follow path toward implementing an IOCP.***
- ***Provide strong & easy-to-find "ground-level" guidance & tools for day-to-day & week-to-week IOCP implementation.***

Insights from the interviews also supported the conclusion that by effectively serving these purposes, a redesigned Toolkit could increase program success by helping to achieve the following goals:

- ***Eliminating skepticism within institutions that do not perceive the need for an IOCP (i.e., demonstrating IOCP's usefulness by "clearly defining how an IOCP differs from...current practices" & "demonstrating the broader value of implementing an IOCP" & "providing anecdotal examples").***
- ***Lowering the "barrier of entry" for audiences who are considering the development of an IOCP (i.e., alleviating anxiety over implementation challenges by presenting a "clear & easy-to-follow path toward implementing an IOCP" & "providing anecdotal examples").***
- ***Standardizing IOCP implementation across different institutions (i.e., encouraging & make it easier for participants to closely follow recommended practices by providing "strong & easy-to-find guidance & tools for day-to-day & week-to-week IOCP implementation").***

Design Solutions Based on Interview Insights

Document Navigation

Based upon field interviews & content analysis I've developed a content-design strategy that allows the Toolkit to be navigated by users in 2 primary ways: *sequentially* (taking users from start-to-finish in IOCP consideration & implementation) and *modularly* (giving users quick access to specific content based on their current need & current location in that start-to-finish process).

These two “paths” through the document would be reflected in the content-design by...

1) *Sequential Navigation*—Dividing the package into 3 main “tabbed” sections that correspond to the 3 main stages of program adoption (which also allows the package to clearly address the 3 main different types of audiences/users identified in the field interviews):

- **Making the Case for an IOCP** (with content most useful to audiences who are considering implementing an IOCP)
- **Preparing for an IOCP** (with content most useful to audiences who have chosen to develop & are getting ready to implement an IOCP)
- **Implementing an IOCP** (with content most useful to audiences who are currently in the midst of implementing an IOCP)

2) *Modular Navigation*—Organizing the content within each of the 3 main sections according to the material's ultimate “target” (which I've divided into 3 color-coordinated categories):

- **Institutions & Care Coordinators** (*yellow pages*)
- **Physicians & Office Staff** (*blue pages*)
- **Patients** (*pink pages*)

Content Layout

In addition, in order to match content design to how the content is used, content layout & text structure is divided into 3 categories:

- **Summary Content** (primarily overview material)
- **“How-to” Content** (primarily guidance & preparatory material)
- **Working Content** (primarily checklist, assessment & interaction tools)

Sidebar Content

Based upon insights from the field interviews, we're using a "sidebar" within the first 2 sections of the toolkit to provide additional guidance & "confidence-building" throughout the IOCP adoption & preparation process. Sidebar content is divided into 3 categories:

- **Testimonials** — Quotes from current participants speaking to IOCP's usefulness & ease of implementation.
- **Tips** — Added guidance to help clarify process or address specific challenges.
- **Document Links** — Descriptions & Locations (both within Toolkit & online) of specific documents that support the page content.

These sidebars will allow us to address some of the more specific issues raised by interviewees that are not addressed within the current Toolkit content (*i.e., providing experiences of other participants, particularly regarding program usefulness & ease of implementation*).

###

SAL REYES • INSTRUCTIONAL DESIGNER

HUMAN-CENTERED [UX] DESIGN ACTIVITIES

Online Design Resource (*UX Design*)

Assignment: Edit & Rewrite raw copy for 200 UX Design Activities, creating standardized format, language, voice & design-approach across all activities.

Client: Clue Group - Melbourne, Australia

Category: Tool

Title: Mental modeling

UX

What is it?

A research and modeling activity that generates a visual representation of a specific audience segment's beliefs, and correlates them to current (or future) product features that do (or might) support those beliefs. The top half of the model shows the user beliefs that represent their root motivations, and the bottom half shows how your product does/ could support those beliefs.

Why use it?

This activity provides a deeper understanding of users' core motivations, allowing designers to create experiences that specifically satisfy and address those motives. It aids in broadening the view of the user experience by more fully defining their perspective.

When to use it?

After the initial concept prototyping, demographic and ethnographic research has been completed, and user personas have been created. Once created, use them as a guide in every stage of design in order to ensure that the user interface addresses their core motivations and provides a good experience for a variety of users.

Who is involved?

UX Designer (as researcher)

Design colleagues (ideally)

Stakeholders (ideally)

Subjects (users)

How long does it take?*

Prep Time: 1-2 days to define audiences and set-up interviews.

Cook Time: 1 week to conduct interviews, analyze and create mental model diagrams, depending upon interview schedule.

** Estimated times. Not including basic "priming" tasks—e.g., inviting participants and arranging meeting spaces for workshops, etc.*

Materials needed

- Demographic/Ethnographic research

- User personas
- A basic understanding of behavioral psychology
- Sticky notes
- Markers
- Large sheets of paper
- Diagramming software

Outcomes to expect

- An in depth understanding in the way your users think and what they believe
- A number of mental models that reflect a wide range of potential visitors to the site, and therefore anticipated acceptance of the design can be widely generalized.

How to do it?

Step 1: Set the scope, pre-segment the audience and type of tasks they undertake

Define what customer needs you will be focusing on in the activity and quickly pre-segment the audience/user types.

[Insert: Figure 1 Set the scope and pre-segment]

Actions

1. Define the scope of area of customer needs that you will be exploring—e.g., customer needs when they want to cook a meal.
2. Determine the related user task(s) you're expecting customers to undertake when using your product to address those needs—e.g., tasks they'll undertake on our website when they want to cook a meal.
3. Review any customer research data you have and identify the broad segments.
4. From the research data, create one or two statements for each segment that express what you think the segment believes or thinks— these will be confirmed later in research.

Questions

1. What area of need will you be focusing on and why?
2. What does the user believe about the product?
3. What are the other factors in how their beliefs are shaped?
4. What other factors shape the point of view of my user?

Step 2: Group audiences by beliefs

Create an affinity diagram of ethnographic behaviors, grouping the audiences by their beliefs or thinking.

[Insert: Figure 2 Group audiences (segments) by behavior]

Actions

1. Using your segment data, group the audiences by their beliefs/thinking.
2. Ensure that these beliefs correlate to the specific needs you are exploring—as opposed to static beliefs.

Questions

1. What is the day-to-day like for the customer/mental model?
2. What are some external factors that might influence how they interact with the product?
3. Is there any specific need that they have related to the product?

Step 3: Interview users collecting their perspective

Before modeling the information you have, interview your users to collect their perspective and add it to your audience assumptions.

[Insert: Figure 3 Collect perspectives from users and add to segment data]

Actions

1. Recruit users from each of the audience types.
2. Setup interviews with them, allowing enough time to explore their ways of thinking.
3. Conduct the interviews, deep-diving into daily habits, beliefs and behaviors. Ensure you have recording or note taking capabilities.

Questions

1. How will you find people to interview?
2. How many audience types do you need to research?
3. How much time is allocated for each interview?
4. How will notes be taken and if recording, how much time have you allowed for transcribing recordings?

Step 4: Analyze interviews and composite into mental models

Review your notes and interview transcripts, and composite into mental models for each audience type.

[Insert: Figure 4 Composite interview data into mental model towers]

Actions

1. Analyze the interview session transcripts, identifying user beliefs for each audience type (based on their daily needs in your area of exploration).
2. Create a mental model diagram for your first audience type.
3. Composite the audience's beliefs and needs, recording them in the top half of the mental model diagram and organizing them however is most appropriate—e.g., according to the basic stages of their customer journey or the parts their day when they might use your product.
4. Identify all of things your product does and/or should provide to support each belief/need, recording them in the bottom half of the diagram and aligning them with the correlating belief/need above.
5. Ensure that your diagram accounts for multiple product offerings.
6. Repeat this diagramming process for each audience type.

Questions

1. Have you accounted for day to day activities?
2. Can you fill more than one need for a customer?
3. Is there more than one product a user might be interested in?

Step 5: Compare and find commonalities

Compare the commonalities to identify anything new that should be included in your product offering or if the different audiences need different solutions.

[Insert: Figure 5 Compare audiences and look for commonalities]

Actions

1. Review the mental models for each of the audiences.
2. Compare them, identifying commonalities, anomalies and patterns.
3. Determine what new features should be included in the product offering to cater for these similarities and differences.

Questions

1. What commonalities are there if any?
2. Do any of the audiences need a different solution?
3. Have you accounted for each daily task and time frames?
4. Does the direction of the mental model fit with the vision for the product?

Next steps

Take a step back and look at the bigger picture of the mental models that have been created and use this to guide long term design vision. You may already have an idea for a new product or to change an existing one to more closely match the mental model of a particular audience, so use them in fine tuning the user experience to make the product design more applicable to your users.

[Insert: Figure 6 Use the information in your design vision and to guide product development]

Related methods:

- User Personas
- User Journey
- Think aloud user testing
- Taxonomic analysis
- GAP analysis

###

Scenarios
TOOL
UX

What is it?

Scenarios are “stories” describing users' interactions with a product or website focusing on the what, how and why.

Why use it?

They provide realistic examples of use case interactions that help to reveal specific user goals and needs. These insights can inform information architecture, and content planning content for a website and provide the foundation for usability testing tasks, helping to more accurately test and design a product.

When to use it?

During the beginning phases of a project, such as initial user research and idea development. Creating new scenarios for each phase of design and development can help keep the user needs fresh in the minds of the teams and adjust designs/content accordingly.

Who is involved?

UX Designer

Product and Design colleagues (optional)

How long does it take?*

Prep Time: None

Cook Time: 1 hour per user scenario

** Estimated times. Not including basic “priming” tasks—e.g., inviting participants and arranging meeting spaces for workshops, etc.*

Materials

- Personas (ideally)
- Whiteboard/butchers roll
- Sticky notes in a variety of colors
- Marker pens
- Diagram creation software (optional if preferring to work digitally)

Outcomes to expect

- An understanding of the users' goals, the steps they take in achieving them and their attitudes, motivations, and beliefs.
- Improved understanding of contextual variables that influence the experience, interface and usability.

Step 1: Review persona and understand the user

Select, review, and analyze the persona you have for the user—focusing on the who, what, when, where and why in relation to the user. If you don't have personas, identify a user type and use the who, what, when where, why to flesh out who they are.

[Insert: Figure 1 Understand the user, using who, what, when, where, why]

Actions

1. Identify the user for scenarios from your customer persona, reviewing in detail who they are and learning more about them.
2. Identify the goals they have. What tasks will they be doing or be expected to do?
3. Add when and where they'll be doing the tasks, looking at the context and environment.
4. Add in the detail about why achieving the goal would be important to the user.

Questions

1. Do you have personas to work from?
2. Is there any relevant research information on users that you can use instead or that will add to the exercise?
3. Does the information gathered give you a specific task that the user will undertake?
4. Which user are you exploring and why?

Step 2: Define the task scenario and steps the user would undertake

Define specifically what the user wants to accomplish along each step that they would undertake to achieve their goal, looking at it from the point of view of being the user.

[Insert: Figure 2 Define scenario and steps that would be taken]

Actions

1. Write the goal on the whiteboard so you can keep referring to it.
2. Put yourself in the shoes of the user and ask "What would I do to achieve this goal?"
3. List each step toward goal on a separate sticky note (working across the board from left to right) and identify specifically what the user wants to accomplish at each step.
4. Review the steps listed ensuring that each of them leads in a logical manner towards the end goal.

Questions

1. What goal is the user trying to achieve?
2. How many steps would the user need to go through? Is this realistic?
3. What are the areas that will be tested for accessibility or usability functions?

Step 3: Work through the steps adding in details around them

Work through each step one by one from left to right, adding in questions, comments, ideas and any other relevant information around that step.

[Insert: Figure 3 Add in interaction, comments, questions and ideas on each step]

Actions

1. For each step, undertake actions #2–4:
2. Determine what information the customer may need to accomplish each step, considering what questions they might need answered along the way.
3. Note any assumptions that have been made. This can include information on motivations that the user may have to take that step in trying to achieve the goal.
4. Note any ideas that occur to you during this step of the scenario.

Questions

1. In what ways can you anticipate user expectations and goals?
2. How can motivations and preferences be measured or be realistic?
3. Have you made any assumptions and are they noted?
4. Is this a full and comprehensive picture of the user journey for the scenario?

Step 4 – Repeat steps 1 to 3 for each task and each customer

As each customer may have several tasks they want to achieve, repeat steps 1 to 3 for each task.

[Insert: Figure 4 Repeat for each user scenario]

Actions

1. For every task the user is expected to undertake, repeat steps 1 to 3.
2. For each user type/persona, repeat all steps until you have worked through every user and each of their tasks.
3. Photograph all of the specific scenarios and create a digital version of your workings if you have been working analogue style.

Questions

1. Have you stepped through every scenario for every persona?
2. Were there any users that you felt did not need to be included in the scenario mapping and if so, why?
3. Is your color coding consistent across all the individual scenario maps?
4. Who in your organization should be provided with the user scenarios diagrams?

Next Steps

The scenarios created can be used in multiple ways. Primarily, they should be used to help design the website structure and information architecture and you should review them with the content teams to help identify content requirements and gaps as well as formulating a content strategy. They can also be provided to the UX Researchers to use in building scripts for usability testing.

[Insert: Figure 5 Use scenarios in website IA, usability testing and content strategy]

Related Methods

- Personas
- Use cases
- Observational studies
- Focus groups
- Remote testing

UX & INSTRUCTIONAL WEB CONTENT

Developer Website (*Payment Systems*)

Assignment: Information Architecture/Writing for Visa's CyberSource developer site.

Client: Lab Zero - San Francisco, CA

Copy is listed in the order noted on the Information Architecture (IA). Page content separated by ###; labeled at top in **BOLD** (these labels are not part of the page content); green indicates IA content reference number; blue indicates links; red indicates notes or content highlighted for review.

(IA 1.0) Welcome (Get Started, Integrate CyberSource, Implement Services)

Build your Payment Management Solution.

—

Choose it. Create it. Test and Manage it.

—

What would you like to do?

[welcome page, left tab]

Get Started

Follow the payment process from the click of a buyer to order confirmation. Learn how payment data flows between a merchant, CyberSource, banks & 3rd party processors.

[View Payment Process Schematic](#)

###

[welcome page, middle tab]

Integrate CyberSource

Virtual Terminal

Use CyberSource's easiest payment solution to enter credit card orders, issue credits, and generate receipts. Your Virtual Terminal can be up & running in 15 minutes.

[Learn More](#) | [Start Integrating](#)

Hosted Order Page

Add a secure order page to your site. CyberSource hosts the page, handling & storing the payment data on our server.

[Learn More](#) | [Start Integrating](#)

Silent Order Post

Host your own order page and post payment data to CyberSource to process each transaction.

[Learn More](#) | [Start Integrating](#)

Simple Order API

Scalability, full range of services & more control for developers. (needs more of a differentiation between Simple Order API and SOAP Toolkit API) CyberSource provides the client software.

[Learn More](#) | [Start Integrating](#)

SOAP Toolkit API

Scalability, full range of services & more control for developers. (needs more of a differentiation between Simple Order API and SOAP Toolkit API) CyberSource provides the tools to build your own client.

[Learn More](#) | [Start Integrating](#)

Batch Upload

Use Offline File Submission to send CyberSource your transactions in batches, instead submitting each one individually.

[Learn More](#) | [Start Integrating](#)

###

[welcome page, right tab]

Implement Services

Global Payment Services

Transact payments in over 190 countries and fund in 21 currencies. Services include credit & electronic check processing, recurring billing, Pay Pal, Bill Me Later, and automated payment reconciliation.

[Learn More](#) | [Start Implementing](#)

Fraud Management

Stop fraud loss closer to its inception, quickly detect good orders, reduce manual review, & tune fraud management processes. Services include our global fraud management portal: Decision Manager, Managed Risk Services, and Payer Authentication.

[Learn More](#) | [Start Implementing](#)

Reporting & Reconciliation

Streamline the management of your payment process operations using the CyberSource Business Center. Services include payment activity & performance reports, and auto-reconciled CyberSource Merchant Account reports.

[Learn More](#) | [Start Implementing](#)

Payment Security

Make your payment system more secure by eliminating the capture, transmission and storage of payment data and reducing your PCI & payment data footprint.

Services include remote secure storage, hosted payment acceptance, payment systems centralization, and vulnerability scanning.
Learn More | Start Implementing

###

(IA 2.0) Learn

CyberSource provides a full range of payment management solutions. Start with an integration method and then implement any or all of our CyberSource services.

Learn about your integration options, make a choice, then start building.

- To learn the basics about online payments & CyberSource terminology, or to explore any of our CyberSource Getting Started guides, go to [Getting Started](#).
- To learn about CyberSource's various options to integrate go to [Integration Methods](#).
- To learn about our array of services go to [CyberSource Services](#).

###

(IA 2.1) Getting Started [Learn]

Whether you're a novice or an expert in payment management systems, we provide an easy way for you to begin creating your solution.

- If you need to learn payment management basics, begin by reviewing:

[Credit Card 101](#)
[How Payment Processing Works](#)
[Glossary of CyberSource Terminology](#)

- If you know what you want to develop, begin by exploring:

[Getting Started with CyberSource Essentials](#)
[Getting Started with CyberSource Advanced](#)
[Enterprise Getting Started Overview](#)
[Document List](#)

- If you need help deciding which payment solution best fits your needs, learn about CyberSource's different [Integration Methods](#).

###

(IA 2.2) Integration Methods [\[Learn\]](#)

Each Integration Method features a different way for payment information to enter CyberSource's system. We offer fast and simple methods and more advanced options that provide greater flexibility and control.

Determine which Integration Method best matches your business' needs, learn how each method works, its advantages, and the technical skills required.

[\[Insert matrix/links for Integration Methods\]](#)

###

(IA 2.2.1) Virtual Terminal [\[Integration Methods/Learn\]](#)

The Virtual Terminal is an online order form into which you enter the customer's order information. Use it alone to manually enter all orders or use it with one of our other communication options.

View a schematic to learn How Virtual Terminal Works [\[Link to schematic\]](#)

Who is a good candidate to use the Virtual Terminal?

- Any merchant or business whose order volume would allow them to enter each order manually (unless used with another communication method)
- Mail and Telephone Order companies with multiple call center users
- Small Internet businesses who don't have an online order form
- Merchants who transmit orders to us via one of our more automated methods, but who need to occasionally do manual entries or adjustments

TIP: If manually entered orders are only a small portion of your business, select one of the other communication options. Virtual Terminal is automatically included with other communication options.

Used alone, the Virtual Terminal is probably NOT right for you if...

- You have more orders than you can enter by hand
- Your Web site is already set up with a Shopping Cart
- You need extensive customization of your order form
- You have scripting or programming skills
- You need to share order data with a fulfillment house

What are the main advantages of using the Virtual Terminal?

- It's fast and simple—no development time or technical skills are required
- It's flexible—you can process transactions from any computer with an Internet

connection

- It's secure—order data is encrypted to protect customer information
- It's compliant—no hassles with complying with regulations for storing sensitive payment information
- It's organized—you can use the online Business Center and reports to review and manage all of your orders

What technical skills are required?

No programming or technical skills are required. Simply log in to the CyberSource Business Center via your Web browser with your CyberSource username and password. Select the Virtual Terminal order form. The Virtual Terminal uses your current Internet connection and Web browser. Set up takes about 15 minutes.

Is Virtual Terminal your solution? [Set up your Virtual Terminal](#). [\[link to Virtual Terminal within Dev section - this line to be highlighted in page design\]](#)

###

(IA 2.2.2) Hosted Order Page [Integration Methods/Learn]

Our Hosted Order Page (HOP) service is a fast and easy way for your Web store to accept credit card and check payments. Your customers enter their own payment information into a secure order page hosted on our site.

CyberSource provides your order page, collects the data, processes the payment and provides a receipt without the customer realizing they have left your Web site.

View a schematic to learn How Hosted Order Page Works [\[Link to schematic\]](#)

• Who is a good candidate to use a Hosted Order Page?

Businesses who:

- Don't want the risk of handling or storing sensitive payment data on their own servers
- Want to achieve and maintain payment security (PCI) certification faster and easier
- Have a resource familiar with basic Perl, PHP, JSP, ASP, ASP.NET or Cold Fusion scripting and host their own server, or use a hosting provider that supports these scripting languages
- Want to accept payments on our secure URL that looks to be part of their own store
- Have an online catalog but don't yet have an online order form or secure server for accepting orders

A Hosted Order Page is probably not right for you if...

- You already have your own secure (SSL) protected order form or don't want to outsource
- You need full customization control of your payment page
- You need a wider range of services than payment, recurring billing and secure storage

What are the main advantages of using the Hosted Order Page?

- Security Compliance—hosted services mean faster and easier PCI certification
- Reduced Risk—no need to handle or store sensitive account data
- Secure Storage—access securely-stored account data for easy future payments
- Low Maintenance—leave compliance and order page maintenance to us
- Speed—faster and easier than implementing your own order page, especially if you need to begin accepting online orders quickly
- Basic Customizing—customize basic visual elements and messaging for your customers
- Virtually Transparent—customers move seamlessly from your product pages to our hosted order form
- Automatic—customers input their own order information
- Easy Order Management—you can use the online Business Center to review and manage all of your orders from any computer with Internet access

What technical skills are required?

A Hosted Order Page is very easy to implement and requires minimal scripting knowledge in Perl, PHP, JSP, ASP, ASP.NET or Cold Fusion. The three main actions are:

- Generate a security key within the CyberSource environment. Place it onto your own Web server to validate your identity to our systems
- Configure your order page by accepting defaults or customizing it
- Modify your Web script (copy and paste) so that an HTML 'Buy' button appears on your checkout page

You can implement the Hosted Order Page in two ways:

- Default: use the default receipt/decline pages and messages with limited customization options
- Customized: have full control to use your own receipt/decline pages and messages

Is a Hosted Order Page your integration solution? [Start developing](#). [\[link to Hosted Order Page in Dev section - line will be highlighted in design\]](#)

###

PRODUCT & INSTRUCTIONAL GUIDANCE

Email Subscription (*Montessori-based developmental toys & learning materials*)

Assignment: Write & design content for weekly email subscription that provided developmentally-specific product guidance & parent support.

Client: Montikids, Inc. - Orinda, CA

Subject: Level 4/Week 4 – Toy 2: Push Balls

Preview: Further adventures with object permanence!

This week the Push Balls continue your child’s exploration of *object permanence*—extending their understanding of the concept by providing different results from the different holes. As your budding scientist experiments with the toy, they will learn that when they use the farthest hole from the opening the ball will take longer to reappear than when they use the closest hole.

While playing with the Push Balls your child will experience *cause and effect*—and soon they will anticipate how long the ball will take to reappear. This kind of *experimentation in play* helps them to make new connections and discoveries that provide the foundation of complex cognitive concepts.¹

In addition to the cognitive benefits, this version of an object permanence box (the third in our Monti Kids progression) helps to strengthen your child’s hands and fingers in new ways. Instead of just dropping the balls into the openings, they’ll need to push the balls through the holes—using two hands at first, then experimenting with one hand or multiple balls at once. These novel and challenging movements help to foster *repetition* and *independence*.

Toy Tip: When first introducing the Push Balls to your child, demonstrate pushing the ball through with the tips of your fingers—using both hands and exaggerating your push so your child sees that it requires effort. Then remove your hands until the ball stops rolling in the tray. Repeat several times, then offer your child a turn.

Toy Tip: If your child doesn’t have the hand strength to push the ball through with their fingers, demonstrate pushing the ball through using your palms with one hand on top of the other.

Video: “Push Balls”

While your child is playing...

- Present the Push Balls on the floor.
- When they begin to concentrate, slowly move away to keep from distracting them.
- Use one ball at first, and after they’ve had practice gradually add the additional balls.
- As their hands get stronger, demonstrate how to push the ball with one hand, then three fingers, and finally one finger.

Research Says

Beyond providing more pushing power, using two hands to push the balls provides special cognitive benefits for your child. Intentional two-handed play builds connections between the right and left hemispheres of the brain. These connections are important for fast and efficient movements, hand-eye coordination, memory recall, thought correlations, muscle tone, balance, and more. Research has shown that children who are exposed to such play at an early age can gain mastery of complex, two-handed tasks sooner than their peers.² And your two-handed demonstrations are key to their learning, because research has also shown that young children are more likely to complete those two-handed actions if an adult models them first.

¹Stokes, B. (2009). *Amazing babies moving: Essential movement to enhance your baby's development in the first year*. Toronto, Ontario: Move Alive Media.

²Greaves, S., Imms, C., Krumlinde-Sundholm, L., Dodd, K., & Eliasson, A. (2012). Bimanual behaviors in children aged 8–18 months: A literature review to select toys that elicit the use of two hands. *Research in Developmental Disabilities*, 33(1).

####

Subject: Level 5/Week 9 - Toy 6: Mailbox

Preview: Diving deeper into the spatial.

This week's toy, the Mailbox, furthers the work your child did with the Coin Box: exploring their innate mathematical sense. As your child moves from the more easily-managed cylinder to more challenging shapes and combinations, they are developing their math sense, spatial awareness, problem-solving and hand-eye coordination.

The Mailbox also employs “isolation of difficulty”—the identically-colored shapes helping your child to focus on geometric characteristics like flat, curved or pointy. Not distracted by color, your baby deepens their understanding of the shapes' properties as they determine how each one fits into its hole. Through repetition, they move from trial and error, to deduction, to problem-solving, and finally to mastery.

Toy Tip: When first introducing the Mailbox, begin with a cylinder in the box and the single-circle lid on top. Then show your child where to place your fingers beneath the lid's edges before gripping with your thumbs and lifting. Gently set the lid down beside the box.

Toy Tip: When demonstrating removing the cylinder from the box, grasp it up using all your fingers—gripping and lifting in a way your child can mimic. Set down the cylinder on its base, then carefully place the lid back on the box. After placing the lid back on the box, remove your hands and give spatial language to boost your child's spatial skills. *“I took the cylinder out of the box.”*

Toy Tip: When demonstrating placing the cylinder into the box, turn the cylinder to look at its base, then align it beside the hole (with its base still visible). Look back and forth between the base and the hole to emphasize that you're matching the two. Then hold the cylinder directly above the hole and pause before opening your fingers—extending them fully so your child clearly observes the release. Repeat a few times before inviting your child to try when the cylinder is out of the box.

Video: “Mailbox”

While your child is playing...

- Present the Mailbox at a small table or on the floor.
- When presenting the shapes, always set them down on their base.
- Start with the cylinder, and when they are ready for new challenges introduce the cube, and then the prism.

- When they've had practice with each of the single shapes, move on to the cylinder-square combination, and finally all three.
- Remember that it will take them time and repetition to master the different shapes, so resist the urge to step in and help when you see them struggling.

Research Says

Toys that involve spatial reasoning can be paired with spatial language—shape terms like *circle*, *rectangle*, *curve*, *edge*, *side*, *corner*; dimensional adjectives like *big*, *little*, *tiny*, *long*; and positional language like *on top of*, *inside*, *next to*. The more children hear spatial language in context before the age of three, the better they understand those words. Providing this vocabulary in context early on can even improve their performance on nonverbal, spatial activities months and years later.^{2,3} In other words, just hearing spatial words in context can augment a child's ability to think about the spatial world.

¹Starr, A., Libertus, M.E., & Brannon, E.M. (2013). *Number sense in infancy predicts mathematical abilities in childhood*. *Proceedings of the National Academy of Sciences of the United States of America*, 110(45).

²Pruden, S. M., Levine, S. C., & Huttenlocher, J. (2011). *Children's spatial thinking: Does talk about the spatial world matter?* *Developmental Science*, 14(6).

³Suskind, D. (2015). *Thirty million words: Building a child's brain*. New York, New York: Dutton.

PRODUCT & MARKETING COPY

Cocktail Plate Copy (*Retail Product Design*)

Assignment: Create “cocktail sayings” for cocktail plate & napkin designs.

Client: Pottery Barn/Williams-Sonoma, Inc. - San Francisco, CA.

Pottery Barn: cocktail plate copy

Toasting

- Toast to tomorrow, but drink for today.*
- The truth is in the toasting.
- Every good toast deserves another.*
- Every good turn deserves a good toast.
- A toast for every occasion. A cocktail for every toast.*
- A toast for every occasion. A cocktail for every toast. Every cocktail is an occasion.
- A toast for every occasion. A cocktail for every toast. An occasion for every cocktail.
- Raise a glass to raising a glass.
- Cocktails make it a party, toasting turns it into a soirée.
- Toasting is in the glass of the beholder.
- Toasting is in the glass of the beholder. Beauty is in the toast.

Etiquette

- Walking with your drink: elbows in, glass raised. Standing with your drink: tip glass, raise elbow.
- A good cocktail party should have a strong host, and a good host should have a strong cocktail.*
- Evaluate a wine's finish. If it ends well, pour another glass.
- Note how a wine finishes. If it ends well, pour another glass.
- How to throw a soirée: Choose perfect ingredients. Prepare. Mix well. Enjoy.
- How to throw a soirée: Choose perfect ingredients. Prepare. Mix with enthusiasm. Enjoy.
- Soirée etiquette: When taking advice from your bartender, listen to what they're pouring.
- Soirée etiquette: No good drink should go undrank.
- Soirée etiquette: A cocktail saved is a cocktail earned.

Similes

- Mixing a good drink is like art: it can't be taught, it can only be learned.
- A good soirée is like a great cocktail: a perfect mix and full of promise.
- A great cocktail is like life: it should be exciting to consume and last long enough to be enjoyed.

Homilies & Misc.

- The best way to drink alone is among friends.
- Drinking alone is best done among friends.
- My hope is for tomorrow, but my glass is for tonight.
- Eat, drink, and be merry. Repeat as needed.
- Wine me, dine me. But mostly wine me.

**Client's final selections for product use.*

PRODUCT & MARKETING COPY

Post Card Copy (*Small Business Marketing*)

Assignment: Develop marketing copy for promotional post cards.

Client: White Papers Press - Mill Valley, CA.

HOLIDAY PROMOTION | **Happy New Year from White Papers Press**

White Papers Press is a true specialty design firm. We engage design with a deep, singular approach to craft, and we work with clients who seek an equally unique & meaningful dialog with their partners.

Our expertise includes graphic design, illustration, packaging design, product development, and the sourcing of insistently crazy ideas. We listen, design through your intent, and bring to life gorgeous, tactile, uniquely-crafted wonders.

Share with us your most outlandish ideas for 2013 & White Papers Press will make them real. Happy New Year!

~

EXHIBIT PROMOTION | **Cut Paper** *by Sara Burgess*

The work you see here is all cut by hand using a regular e-xacto knife, lots (and lots) of blades, and a delicate combination of patience mixed with obsession.

This artwork is also being used to produce a special selection of limited edition pieces, including: game boards, textiles, and lighting. For these pieces, the original cut paper art has been scanned and meticulously rebuilt in Adobe illustrator.

This digital file is then used to etch the image into metals or laser cut the art into a variety of other materials. These limited edition pieces are only produced when the integrity and intent of the original art can be preserved in the production method.

I am always happy to talk about commission and collaborative projects.

CREATIVE WRITING

Short Story (*Historical Fiction - for publication on rsalvador.com*)

The Dream of the Monongahela River

It was a simple thing, to be bled. The General knew this, and he didn't fear it. And he was sure that it was the first thing Dr. Craik would order, so he didn't hesitate to summon one of the estate's overseers, Albin Rawlins, before dawn and request that he aid him in beginning this final engagement at first light. When he arrived at the General's bedside—hours before the doctor would find his way through the cold Virginia morning to see it for himself—Rawlins observed the obvious: death inhabited the room, and it made his pale hands rattle as he held the metal lancet above the great man's heavy, weary arm. The General eyed him calmly and smiled. "Don't be afraid." A thing he'd told thousands of men, but he'd never before meant it in exactly this way. He nodded at Rawlins and offered his arm again. Breath choked in the General's throat, its swollen passage constricted, succumbing. It wouldn't be long—he was certain of it.

He knew this territory intimately. He'd watched men hunted by disease. As a boy he saw his father taken down. Ten years later, he accompanied his older brother, Lawrence, as he was stalked by tuberculosis. They'd tried to

run from it, together, to Barbados—for some reason that had never been clear to him until now. In his own final hours it was obvious that the chapel of St. George's high up on the Barbados hill had been his brother's lancet. And it was, in fact, Lawrence who had been on his mind that morning, even before the trickle of earthen red began to pour from the vein in his thick forearm. It was Lawrence whom the General wished he could speak to one last time—if only to experience a simple narcissistic satisfaction that had never been possible during his epic ascent: to astound someone whom he cared to astound. He wanted to call him into the room, clear it of everyone else, and then see his expression when he said it: *Lawrence, while it was that you were dead, I became the first leader of a new Republic—I am the Alpha of some new history. They're building a city on the Potomac, brother, a city with our name.* His thoughts of the long-dead Lawrence rode with him into a patch of deep unconsciousness that followed the first bleeding. Nearly a pint was gone. But even as he laid there, seemingly at rest, the General's breathing grew steadily worse and everyone was certain more bleeding would need to be done.

It was then, for the last time, that he had the dream—the one that followed him everywhere, the dream of the Monongahela River. Although the dream suggested otherwise, in the vile, terrifying chaos of that late afternoon along the Monongahela, the young someday-General had been too naïve to believe that he was going to die there. The hellishness had come down on them like a storm: the Ottawans, Hurons, Shawnee, all of them, more, raining a savage death through the trees and from all directions into the clearing where hundreds of the Americans and British fell. Nothing can horrify like the screams of men when they are dying together in a confined space, even under a perfect July sky. Soldiers killed each other accidentally among delirious clouds of gun smoke and bedlam. In the midst of the human inferno, as the young Virginian pushed himself up from the dirt—his second horse felled and

the carnage near its peak—it struck him that it was all madness and without purpose, and yet it would undoubtedly produce some outcomes, *consequences*, that were desired somewhere. This was the domain of men, raw and unadorned; he was its witness. Whenever the General dreamed about that afternoon, however, it wasn't the battle that he relived, but the fording of the river as they retreated. In the dreams, although surrounded by the cries of men, he fights the water alone. And the river—almost torrential by the time he nears its center—always washes him away, draws him helplessly downstream before he can reach the other side. There is never anyone there to save him, and in the dreams he knows this, so he doesn't holler or call out for help. He just drifts down the raging Monongahela, on his way to some falls or lake or gulf or ocean, some destination in water at which he never arrives.

CREATIVE WRITING

Literary Essay (*Poetry Criticism - for publication on TottenvilleReview.com*)

Future Paths Unfollowed:

The Poetry of Joseph Ceravolo and Laurence Lieberman, Part I

The Wayward Ones

Poets move like shoals of fish through the ocean of our literary history. Gathering along the currents of time, dividing into separate schools, exploring myriad paths forward—some break off to join different shoals, others dart away in tiny clusters, quickly collecting streams of new followers. But there are those few loners, the daredevils, the quixotic—the pioneers who wander wayward, diving into unexplored depths, unfollowed, and sometimes forgotten. Yet their journeys are often the most fantastically revealing, and, ironically, the most powerfully *memorable*.

The last 40 years have been a dark time for poetry's solo wanderers. The medium's plump shoals have gathered more momentum, each seeming to divide and grow again. Even as poetry's readership diminishes, the shoals fill their ranks—every oversized, famished new school thrashing over the same shrinking supply of literary affection. And if we consider that poetry's presently diverse, but ancestrally-related avant-garde is ultimately not that stylistically dissimilar from the poetic explorations of Gertrude Stein or Frank O'Hara or John Ashberry, we could argue that these shoals have been traveling a bit too *circularly* over the last 40 years. Worse, their voracious appetite has left behind little affection for the wanderers.

If we do not want these quixotic figures to be forgotten, we need ask: who are they? Who are the poets who have followed the actual path (not the mimicked one) of adventurers like Stein, O'Hara and Ashberry—striking out on their own, shoals be damned? Of course, every poet's view of these metaphorical seas is unique in its myopia. But when I cast back over the last 40 years of American poetry in search of the most gloriously singular journeys, I hear two voices above the rest: Joseph Ceravolo and Laurence Lieberman.

Mirrored Brilliance

A result of their magnificent uniqueness: Ceravolo's and Lieberman's poetry is, at first glance, wildly unlike each other's. In some ways, they are diametric opposites—both in form and in the creative arcs of their careers. Ceravolo (a civil engineer who was born in Queens and lived much of his life in New Jersey) emerged in the late-1960s as a promising, in-the-wings figure of

the hip, art-connected New York School poetry scene. But the attention from his first full-length book—the brilliant *Spring in This World of Poor Mutts* (Columbia University Press, 1968), winner of the first Frank O'Hara Award for Poetry—eventually began to wane. By the time he published his masterpiece in 1978—*Transmigration Solo* (Toothpaste Press), a small-press collection mostly written 18 years earlier while spending a gloriously-inspired autumn in the outskirts of Mexico City—Ceravolo was no longer in poetry's spotlight. His admirers, though fervent, were mostly reduced to fellow New York School veterans. A decade later, Ceravolo died of cancer; he was only 54, and left behind just a handful of small-run, out-of-print collections.

But Ceravolo's poems have remained vibrant and compelling enough to be passed on between generations of poets like a secret—like the hidden location of some remote, only-reachable-in-negative-tides mystical coastal cave. Stylistically, Ceravolo's singular poetry is, on the surface, primarily cubist and insistently abstract. His strongest poems are typically short, no longer than a page: bursts of pure sensory aesthetic and graceful motion wound around a fearlessly-probing, celestially-agog voice. His best work is an inseparable mesh of boiled-to-the-bone wonder and fear, where every moment seems to come at you unexpectedly.

Conversely, Lieberman's poems are heavily narrative on the surface. A true poet-traveler, the Detroit-born Lieberman (a long-time University of Illinois professor and a highly-respected talent who's never been poet-of-the-moment) has spent the last 30 years of his 45-year career writing feverishly and exclusively about the lore, culture, lands, and people of the Caribbean islands—weaving long and sometimes epically-scoped tales drawn from his extensive explorations of those tiny, but distinct, story-rich nations. And yet, in masterful collections like *The Mural of Wakeful Sleep* (Macmillan, 1985) and *Compass of the Dying* (University of Arkansas Press, 1998) we find that beneath Lieberman's engagingly narrative structures are lines and language that, like Ceravolo's, leap from the page in all their cubist glory—layering every tale he uncoils with a sub-strata of craggy and sublime imagery that morph the poems' adventurous, page-winding forms into abstract and powerful narrative mosaics.

Like Lieberman's mirror, beneath Ceravolo's obvious abstraction and from-all-angles, quicksilver imagery, his poems have a subtle, but firm narrative and linguistic architecture that holds everything together. His are not the random, stir-the-pot-&-let-the-synapses-fire, pop-culture or obtusely-personal snippets of imagery and phraseology that are the hallmark of post-modern

poetic descendants like the LANGUAGE school. It is, in fact, Ceravolo's commitment to an undercurrent of continuity and progression (both within and between poems) in collections like the gorgeous *Transmigration Solo* that gives his work its depth and allows him to coherently explore complex and larger themes despite the linguistically, syntactically and imagistically fragmented nature of the individual pieces.

Ceravolo's Infinite Ephemera

The results of Ceravolo's constantly opposing poles are poems that seem to hover at the border of visibility, flickering between states of solidity and abstraction—merging the earth-bound with the ephemeral in a way that reflects our mind's inexact fusion of senses and thoughts. This simultaneously concrete and elusive voice can be heard in the opening stanza of *Transmigration Solo*'s first poem, "Lost Words":

One corner is enough.
There isn't one
as the field bulbs go out.
Right nearby is a river.
Moon exhaustedness slow (BIG)
slides lawns of earth under.
Moves paws, feet, nearby.
Closes this body in ground!

The combination of stark precision and purposeful oddity in the language invigorates the fabric of this seemingly familiar scene with an angular, striking distortion of image and motion that alters the landscape like a cubist painting. In addition, the stanza's filmic "double-exposures" allow the lines to contain those simultaneous multiplicities like wonder and fear. Look at how the second line reverses the first: line 1 allows us to feel that we possess all we need right here, but the next admits the truth of the moment, thus transforming the first line from something seemingly present into something longed for.

And the stanza's closing line achieves a similarly self-contradicting duplicity. It is at first an ecstatic realization of the pure visual and physical truth of the moment: that these two celestial bodies—the moon and earth—as they slide over each other, enclose him in between. We feel his tininess matched against their vast size, yet still sense an inescapable, enveloping connectedness within his field of vision that makes their vastness partly his own. But the line's

exclamatory joy cannot hide the darker exposure it also sears onto the page: the image of this same ecstatic creature buried in its grave. This grave transforms the opening lines yet again, providing a more-specifically ominous setting for their once sufficient, then truant, and now confining corners.

Creating this kind of brief universal oneness (a oneness he *arrives at* here after its stated absence in line 2) from an askew sewing-together of the fragmented, flickering, perpetually-moving pieces of a moment was among Ceravolo's unique talents. And it is the motion in his poems—often from unlikely sources and taking unlikely paths—that brings these moments to sudden life, gives his descriptions that quality of a flowing holographic rendering of a distant, but momentarily-immediate place. In the stanza above, lines 3–7 reanimate the moment in just such a way: "as the field bulbs go out./Right nearby is a river./Moon exhaustedness slow (BIG)/slides lawns of earth under./Moves paws, feet, nearby." In line 3, the poem's figurative walls suddenly fall away and we are transported from that comforting-cum-wistful corner to the disorienting openness of a field, one immediately transformed by another "double-exposure": both growing dim as we see lit bulbs around the field go dark, and fading in time, because the line also suggests blossoming flower bulbs in the field either wilting or closing-up in the night. These two forms of simultaneous transformation—illuminative and temporal—spur the scene into motion.

And then a swing of the eye to a new border: "Right nearby is a river." This border is linear, parallel, *cornerless*—it is also more supple, alive and dangerous than the cornered borders first conjured. Here is a mysterious path to somewhere else, yet we sense his apartness from it. The motion of this river is then mimicked by the almost glacially-observed movement of the moon ["exhaustedness slow (BIG)"] as it slides above-head. Ceravolo's placement and usage of the word "slides"—attending to the phrases both before and after it—allows him to magnify the sensation of this echoed river-like motion. These conjoined lines seem to cause the moon to flow in one direction while the earthly lawn below flows the opposite way. The cumulative effect is powerful: the visceral experience of the movement of these two massive bodies turning, one in rotation around the other.

This newly-celestial view transforms the adjacent river from a border into his peer. Which is appropriate, because in the next line he seems to have joined the inanimate—becoming another

part of the earth that the animated, otherly "feet" and "paws" are now "nearby." We can also see these creatures as different kind of river beside him: their path another border in motion, more evidence of movement & life that, paradoxically, he seems to be apart from while remaining connected.

This joining of earthly, lunar, human and animal forms coalesces in the frisson of that transcendent-but-ominous last line of the stanza: "Closes this body in ground!" Here in the space of its first eight lines, Ceravolo's *Transmigration Solo* transforms a simple, waning, late-night moment into a microcosmically-epic, yet intimate and inter-looping, infinite and mortal journey though and around the vessels of being, space and time. This is what the wanderers can bring us: new and exotic visions of our universe—visions that can transform us as immediately as they enter our minds.

Connecting The Corners

In addition to his intricate inter-poem structures, Ceravolo's collections create a strong intra-poem architecture that unites and expands the scope of the work as a whole. Both a linguistic economist and an intertwiner, Ceravolo weaves throughout his collections repeated images and language that become his poetry's own mythology. These elements build and evolve as the poems unfold, each reappearance drawing new lines in the collection's archeological sediment. For example, the corners from "Lost Words" reappear in *Transmigration Solo*'s later poems, carrying their new complexity and heft forward into other landscapes—helping to inject a dose of that continuity and progression into the larger work. Appearing a few pages after "Lost Words" in the middle of the poem "Floating Gardens":

"I'm happy", I said to a big tree.

So we stand
on a ridge, it
has corners and we
wait in corners
of excellent summer,
unconscious manifolded igneous
summer,

And beginning the poem that follows it, "The Women":

They have the corner
half seated on their thighs,
and long braids tied like drainpipes.
Their hair is a drainpipe
closed from rain.
In the corner of their eyes
is a building of grass.

When we arrive at these poems, the language of longing & comfort has already been infused into Ceravolo's image of the corner. One of the great benefits of poetic economy—styles, like Ceravolo's cubism, that rely on word sparsity—is that small moments like the opening stanza of “Lost Words” can achieve a magnified weight as they echo throughout the other poems. This helps those thematically-deepening connections between the pieces to flourish.

"Floating Gardens" is a poem of pure ephemeral joy, and an expression of youth's reality-conflicted, but invigorating intimations of immortality. When we encounter Ceravolo's corners again here—particularly after his blunt declaration of happiness—they now feel exactly like that longed-for comfort that was so fleeting earlier. And the specific power of this moment's firmness in self (and in that self's place in the universe) is secured by the snug placement of the ridge's corners within the more-enveloping corners of the summer itself.

This evolving imagery provides a kind of fundamental narrative movement through the collection: a recognized & powerful need from the beginning of our story has now been, at least momentarily, satiated. And in the next poem the story takes another turn: we find ourselves outsiders again. The glory of the ridge is behind us, and here our mythological corners are possessed by mysterious others—natives of this land, who remind us in their uniquely-foreign posture of comfort that we still belong nowhere: "They have the corner/half seated on their thighs,".

The women's "drainpipe" braids are depicted like an elegant apparatus for diffusing the rain—like the self-contained shelter of a creature evolved to effortlessly interact with its environment. This makes these women appear to be more authentic beings of this land, beings who might hold in them the secret locations of a seemingly-distant inner peace: "In the corner of their eyes/

is a building of grass." Of course, in another wonderful paradox, the "real" image depicted here is simply the reflection of a grass hut in one of the women's eyes. Thus, this perceived-to-be out-of-reach desire is also right there beside him, within the world in which he stands.

Last Words

As we journey with Ceravolo in these poems through his epiphany-filled season in a foreign place, we are transformed with him; his perfectly-titled *Transmigration Solo* becomes our own singular journey from one form of our being to another. It is a journey of constant flux—one in which we exist in a flickering state between anticipated consummation and impending cessation. And this impossible-yet-honest dissonance is on full display in the final poem of the collection, "Notes From St. Francis". Not coincidentally, the real St. Francis bore more than a passing figurative resemblance to Ceravolo: a rebellious, quixotic outsider who devoted his life to poverty in order to spread his own purist version of the Gospel. St. Francis embodies the ideal of salvation through sacrifice & repentance. Ceravolo's own suffering & sacrifice in chase of his purist muse is a dark undercurrent of his final collection, *Millenium Dust (Kulchur Foundation, 1982)*. In the first several sections of that book there is, in fact, a powerful sadness under which the poems seem to wither. But the title-bearing last section finds a way to mostly shepherd the sadness toward a profound, gut-wrenching beauty.

In contrast, "Notes From St. Francis" (actually written on U.S. soil, 5 years after his 1960 metamorphosis in Mexico) was composed when Ceravolo's darkly-infinite perspective on existence was still tempered by the exuberance of youth. The poem expresses its fearless embrace of simultaneous being and mortality in a shameless, gorgeously unencumbered voice. It begins:

In the world today
there is
no world so attached as I am
to worlds.

And the collection concludes:

We are gunning for extinction.
The sky is still bright

and all the animals running
for prehistoric sounds
believable in the passionate night.

Here it seems wiser to let Ceravolo's words speak for themselves. Instead of more explication, I'll share what I mostly like to imagine these days when I conjure Ceravolo: some failing fire escape or drooping front stoop in north Jersey, sometime around the year of Bicentennial, some forgotten autumn, some late night after some long day. There's a recording you can listen to online of Ceravolo reading 12 minutes of poems on just such a night during just such a season, in Lower Manhattan at the historic Ear Inn just before the release of *Transmigration Solo*. And you can hear it in his voice: the weight of things he's seen in his mind. During some of the most recent poems spoken on that night, you can feel the burden of those visions. But near the end of the reading, he begins to dig in to some of the old work from his upcoming (but actually 18-years past) collection, and you can hear him fill with it—the truth of what he's speaking, his belief in his words. In those moments, Ceravolo knows it: he's created these magnificent objects. In the recording it sounds like maybe a couple dozen listeners, likely less, are gathered. Who knows what he thought then. *Is this it? Will anyone else hear?* I would like to tell him—yes, Joe, we hear.

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SCIENCE WRITING

Cognition Essay (*Cognition of Humor*)

The Need For Novelty or Why Is Stuff Funny?

by R. Salvador Reyes

Humans do not *all* find the same things to be funny, but all humans do find *some* things to be funny. The ability to detect humor & the tendency to reflect (through a smirk or a laugh) the detection of that humor are universal human traits. And if our brain has turned these mechanisms into universal human traits, then humor *must* have some purpose beyond simply adding a little entertainment to our lives. This conclusion leads us to a couple of obvious questions: why is certain stuff funny, and why do our brains care?

What Is Humor?

First, we have to define exactly what human brains judge as "funny." In terms of our *response* to amusing stimuli, that's a simple task. The brain mechanisms that are engaged by our humor response have a fairly obvious *tell*: they cause us to *physically express* our amusement somehow (often unexpectedly or even uncontrollably). This expression of amusement occurs along a broad continuum—ranging from that mere smirk to hysterical fits of laughter. No matter where along the spectrum one's response falls, if our brain

has identified something as funny (or even just *quirky*), we're highly prone to show it somehow in our face.

What, then, is our brain actually *identifying* when it deems something as funny or quirky? *Novelty*. Every joke is, in essence, a *surprise*. Whenever you smirk or laugh or are otherwise *amused*, your brain is tagging that surprising event, observation or narrative as *uniquely novel*. Why does our brain care so much about novelty that it's devised a special universal human mechanism devoted to identifying & analyzing uniquely novel data? Because above all else, the human mind & consciousness are built to maximize that primary, evolution-conquering tool: creative problem-solving.

In the brain's game of creative problem-solving, novel data & patterns *always* have some potential future value. Whether it's the smile-producing & *genuinely odd* way that the errantly-floating feather seemed to skip alongside your feet (and whose uniquely new presentation of locomotion might spur an engineering *a-ha*) to that *hilarious* narrative

twist you didn't see coming (but which, since it's now been experienced, you can apply as a possible narrative predictor in a future unique circumstance).

This creative problem-solving boost is the same value we get from clever word-play jokes like puns & other novel verbal linguistics—which are the source a literally *volumes* of humor. As we first explained in *Narrative Complexity* essay #1, the human brain's thought-conjuring & problem-solving machinery is primarily language-based, and the ability to cross-associate unlike ideas via their related modular word-based components is *enhanced* by words that have those unique, highly-malleable & flexible multiple-associations. Puns & word-play jokes help reveal to our brains even the most-hidden of these useful multiple-usages & associations between words, which supports humor's ultimate purpose: to aid in creative problem-solving.

From our mind's point of view, every current or upcoming unsolved problem might be unlocked someday by that as-yet-un-encountered, uniquely-novel data or pattern. For these reasons, the human brain is built to *love* consuming & cross-applying novel data in its quest for more creative & unique solutions. And what does our brain do when it wants us to love something? *It feeds us pleasure in response to that something.* Our brains need novelty, therefore, humans love humor.

Parsing The Pleasure

This pleasure response mainly does two things for humans: it helps us to take special note of the uniquely novel data or pattern, and it helps us to *remember* the novelty for future use. This is why it's so useful (& adorable) for babies to be giggling & smiling at stimuli all of the time. And to a brand-new baby, nearly everything that's even the slightest bit novel is likely to be judged as uniquely (and thus, humorously) novel.

Particularly in those earliest (infant & toddler) stages of our brains' cognitive-rule development processes (mechanisms thoroughly explained in essay #4)—discerning, distinguishing & remembering specific new patterns is vital to building & sorting the plethora of new rules that our left hemisphere is stocking up on for a lifetime of use. As we age, the needs of our brain change, leading to a change in the way we respond to that uniquely novel data (aka, our *sense of humor*).

For one thing, you might say that our "giggleness-quotient" decreases with age. That once unendingly-amused toddler eventually, over the years, tends to find fewer & fewer events, observations & narratives uniquely novel. Although the *full scope* of what we find to be funny generally grows much broader & deeper as we age, it seems that the sheer number of experiences

that we judge as humorous is still much greater in our youth.

However, in terms of humor & aging, what we give up in quantity might be made up for in quality. Mature, experienced & fully-analytical minds are likely to find humorous experiences more *rewarding*. This is because, generally speaking, those minds are ferreting more-useful data out of these novelty-based experiences. How exactly does our brain turn a novel experience (aka *a comedic narrative*) into more-useful data? By using the same primary tools that it uses to analyze all narratives: the value & validity judgements that fuel our emotional equations (explored extensively in essay #2).

According to Narrative Complexity's hypothesis, the human brain makes 7 specific narratively-based judgements when analyzing any of these uniquely novel events or comedic narratives. In other words, there are 7 judgements that the brain makes when determining its response to a joke. As we age & our minds mature, our brains tend to weight some of those specific judgements differently, leading to both different responses to novelty & different preferences for certain kinds of uniquely novel experiences or narratives.

When we're younger, our brains tend to be less capable of flexibly & subtly balancing & analyzing those 7 judgements of a comedic

narrative, and are thus less capable of receiving the humor-based pleasure derived from narratives that generate their comedy in more balanced & complex ways. Younger individuals have what we might think of as a less-sophisticated humor palette, one that only requires high scores in a few key categories in order to generate our humor response, but that is less responsive when those categories are more balanced with the other 7.

These younger humor palettes are also willing to soak up lots of seemingly-redundant experiences that hit those few key notes—because they're likely still developing their initial sensitivities to the subtleties *within* those few key categories. In the construction of the human mind, one of the brain's complexity-developing tricks is to start narrow & go deep—providing complex-but-microcosmic early neural models to found the building of broader, more robust & more flexible mechanisms later. In terms of humor, this means that in order to teach your brain how to eventually laugh at a *New Yorker* cartoon, in your youth you must first master an understanding of all the subtleties of *far* jokes.

What exactly are the 7 independent, narratively-based judgements that our brain makes about uniquely-novel data? Behold, the anatomy of a joke:

1. Likelihood Judgement - This first judgement is essentially about the expectation or the "set-up" of a joke; therefore, this defines the general emotional state of our mind *prior* to encountering the joke's surprise.

During a comedic narrative or event, we either see a novel twist coming or we don't. If we feel that there is a strong likelihood of something unexpected happening (a joke with a "set-up") we feel the *anxiety* of that predictive uncertainty. If we are *not* anticipating something unexpected happening (low likelihood or no "set-up") then we feel the security of our predictive *confidence* (and are thus very likely to be more surprised or even *shocked* by the upcoming novel twist).

2. Loss/Gain Judgement - Once the unexpected event occurs (in essence, the "punchline") the first thing our brain does is determine whether the event represents a loss or a gain to us. If the surprise is a rock falling on someone's head, that's likely viewed empathically as a loss (making it a pain-based joke). If the surprise is a diamond necklace falling on someone's head, that's likely viewed empathically as a gain (making it a pleasure-based joke).

However, this judgement is also impacted by how we feel about the individual to whom these events happen. If it happens to

someone whom we don't like or whom we have disdain for, then the rock might feel like a gain & the diamond necklace like a loss. No matter how many different factors are at play here, the unexpected event is ultimately judged by our brain as a personally-felt gain or loss.

3, 4 & 5. Importance, Relevance & Novelty Judgements - These three judgements (which are essentially simultaneous) are those fundamental measurements that the brain uses to determine the overall *value* of the loss/gain identified in judgement #2 above.

If the rock that unexpectedly falls on the character accidentally kills him (or if the falling necklace came from the Titanic) that makes the event more *important* (and the joke more *outrageous*) than if the falling rock merely annoys him. If the character is a small child and you also have a small child, that might make the uniquely novel event more *relevant* (essentially making the joke more *insightful* to you). And if you've never unexpectedly seen a rock fall on anyone's head before (because you've been living under one—or maybe you're, like, 2) then this event might actually seem highly novel (increasing the joke's most vital element, its novelty-based *humor*).

Together these 3 judgements essentially determine the *intensity* of our emotional/

physical response to the joke. Low scores across these categories create a smirk; high scores in these 3 are likely good for big laughs.

6. Reliability Judgement - After observing (or experiencing) the unexpected & novel result within a comedic narrative (and feeling those initial emotions) our brain wants to assess the actual *usefulness* (or the *impact*) of this attention-grabbing new data discovery.

In other words, some of these surprises provide data that's more valid—more reliable as a behavioral or narrative predictor or model in the future. Although *all* punchlines are unexpected or unlikely narrative results, the *plausibility* or the ultimate *truth* (to us) of that unexpected result (often gleaned after a moment of post-surprise reflection) helps to determine our different subsequent validity-based emotional responses to the punchline.

If, in the end, the surprise feels contrived or phony—making it more unreliable as a predictor—this tends to dampen our enthusiasm for the joke. In contrast, if the punchline or unexpected twist feels *especially* true or plausible—declaring itself a reliable predictor—that tends to bolster our enthusiasm for (and the pleasure derived from) the joke.

7. Belief Judgement - The other half of this post-surprise *assessment* of a novel result's

usefulness or impact: determining whether the comedic narrative or event complies with or violates any of our beliefs (defined in essay #2 & explored further in essay #4).

In the end, even if we initially (and somewhat involuntarily) laughed at a joke, during this assessment our smile might still morph into an expression of *disgust* if the punchline or character behavior ultimately *violates* one of our stronger beliefs. Comedic narratives are, after all, still *narratives*, which means that (according to Narrative Complexity's mechanisms) before they enter our conscious awareness they're automatically analyzed by our belief system for emotional generation.

And when a comedic narrative scores high in belief *compliance*, it tends to enhance our *connection* to the humor & its source—a result of that admiration-based modeling mechanic triggered by others who demonstrate compliance to our beliefs. Comics that play heavily with these belief judgements are the kinds of comics who tend to inspire devoted worship: individuals whose comedy is founded upon strong & distinct beliefs that are shared by its audience. These are powerfully-admired comedians (like George Carlin, Richard Pryor, Chris Rock & Louis C.K.) who not only seem to speak uniquely novel & cleverly arrived-at high-value truths, but surprisingly *profound* & belief-defining truths.

In fact, controversial-but-worshipped comics like Carlin, Pryor, Rock & Louis (or the ultimate example: Lenny Bruce) tend to build their envelope-pushing comedy around a clever belief-engaging trick. These comedians usually work off the premise that “the truth rules above all”—this belief posits that nothing is more valuable than expressing the truth, even if it is offensive or painful. They often then go about revealing the most offensive or painful truths that they can muster, but do so while complicatedly & cleverly remaining within the confines of “truth-telling” about some high-value topic, allowing (or forcing) us to “accept” the offensive or painful (yet still important, relevant & *hilarious*) unexpected truth.

In a comedic situation or narrative, tolerating the *violation* of a powerful belief in the service of complying with an *even higher* belief causes some *very interesting* (& often oddly pleasurable) emotional responses in humans. Part of what we’re

feeling is likely the result of little neural renovation, because jokes like this probably cause some subtle rearrangement of our own belief structures (in order to accommodate this clever new comedic conundrum).

In other words—no matter how it’s structured—deep down in our brains, a joke is rarely *just a joke*.

The Comedy Gun

Before we go, I’ll leave you with a little eye candy. In order to provide a more visual way to break down his 7-step comedic process, I’ve built a handy chart—something that’s a bit like the mutant offspring of the *Mothership of Emotions* (presented by our theory in essay #2). And this mutant offspring has its own semi-clever name: *The Comedy Gun* (a tiny homage to that deathly classic, and truly-certainly-never-funny-to-begin-with comedy “device” of prop guns that either explode loudly or spit out a silent, dangling “Bang!” flag)...

the Comedy Gun

the Lead	the Surprise				the Assessment	
Likelihood Judgement	Loss/Gain Judgement	Value Judgements			Reliability Judgement	Belief Judgement
Strong Anticipation of Surprise >Set-up< (Anxiety)	Loss (Disappointment)	Low Importance	Low Relevance	Low Novelty	Unreliable (Invalid Pattern)	Belief Violation (Disgust / Guilt)
(For each element of comedic narrative, judgement either ^ ~ v . Each element judged independently; 128 combinations.)						
Weak Anticipation of Surprise >No Set-up< (Confidence)	Gain (Delight)	High Importance	High Relevance	High Novelty	Reliable (Valid Pattern)	Belief Compliance (Pride / Satisfaction)
Expectation	Pain/Pleasure	Outrageousness	Insightfulness	Humor	Truth	Connection
Barrel	Intensity				Impact	