Study Guide: *The Other Place*

**BY:** Sharr White

**DIRECTED BY:** Daniel Brooks

A Canadian Stage production

Jan 18-Feb 7, 2015

Overview and Classroom Activities
Study Guide: The Other Place

A letter to teachers and students:

Education is a vital part of what we do at Canadian Stage. We are committed to sharing material with our audiences that will challenge, enrich and deepen their perspectives. Sharr White’s The Other Place is an emotional thriller that is certain to hook students with its dark comedic tones and exploration of universal themes including perception, forgiveness, identity and loss.

The Other Place’s clever composition and discussion of real-life challenges around issues such as memory (dementia) and family will appeal to students from a variety of backgrounds. The playwright thoughtfully uses theatrical conventions to confuse the audience throughout its duration but manages to definitively clarify what actually occurred by its conclusion. This witty writing combined with Daniel Brooks’ outstanding direction and commitment to highlighting the universal themes discussed within the show are certain to result in a memorable and meaningful theatre experience for student audiences.

Juliana Smithton is a successful neurologist whose life seems to be falling apart around her. Her husband has filed for divorce, her daughter has eloped with a much older man, and her own health is declining. But in this brilliantly troubling and unexpectedly humorous play, nothing is as it seems. Piece by piece, a mystery unfolds through Sharr White’s cleverly composed script. Fact blurs with fiction, the past collides with the present and the elusive truth about our unreliable narrator, Juliana, begins to surface.

Sharr White’s The Other Place is a sophisticated story that will trigger discussions about gender, loss, memory and family. Based on the script, this guide explores The Other Place’s historical and social context, White’s inspirations and goals, as well as several themes in order to offer preliminary context for students and teachers. It is meant to be a helpful tool in providing information as well as strategies for utilizing a trip to this production for teaching diverse learners in a variety of subjects. Throughout this document, connections to curriculums including Science, Psychology, English, Social Sciences, and of course Drama become evident. This guide will ideally clarify how White’s thoughtful script is tangibly related to the curriculum and may serve as an exciting entry-point for thoughtful discussion in any classroom.

See you at the theatre!

Cheers,

Erin Schachter, Education & Audience Development Manager
416.367.8243 x280
eschachter@canadianstage.com
Synopsis

“[I]t’s about the smartest woman on Earth, who discovers that nothing is what she thinks it is.”
- Sharr White on The Other Place

Adapted from ‘Who Do You Think You Are, Anyway?’ by Charles Isherwood:

Juliana Smithton is a successful neurologist whose life seems to be falling apart around her. Her husband has filed for divorce, her daughter has eloped with a much older man, and her own health is declining. But in this brilliantly troubling and unexpectedly humorous play, nothing is as it seems.

Midway through a presentation promoting a new drug she discovered for the treatment of dementia, she becomes disturbed by a young woman in attendance wearing nothing but a yellow bikini. As the presence of this unsettling auditor begins to obsess Juliana, her concentration vanishes, her mind suddenly freezes up. The presentation, we learn, ends abruptly. Retreating back home to Boston, Juliana finds herself convinced that she has a brain tumour.

But does she? Juliana’s belief in her self-diagnosis may be fierce and intractable, but she happens to be married to a prominent oncologist, Ian, who remains unconvinced and urges her to see another specialist. Unfortunately Juliana doesn’t put much stock in Ian’s advice these days, not since he started cheating on her. And not since he refuses to join her in reaching out to their estranged daughter, with whom they have not been in contact for many years, after she ran off and married a onetime colleague of Juliana.

As scenes from Juliana’s life are enacted before us our perspective on her character begins to shift. Piece by piece, a mystery unfolds as fact blurs with fiction, the past collides with the present and the elusive truth about Juliana begins to surface. Eventually, she actually visits “the other place” – the house in Cape Cod which she inherited from her father – and encounters the current owner whom she mistakenly believes to be her daughter. The woman, preoccupied with her own set of problems, is at first confused and hostile, but the two women end up finding mutual comfort before Juliana’s husband arrives to take her home. In a poignant closing monologue, Juliana finally confronts the truth and exposes her mental fragility.


Characters

Juliana – A sharply intelligent and charismatic scientist in her early fifties.

Ian – Juliana’s husband, an oncologist in his early fifties.

The Woman – In her late twenties to early thirties, The Woman portrays: Dr. Cindy Teller, a neurobiologist; Laurel, Juliana and Ian’s daughter; and a Woman.
The Man – In his late thirties, The Man portrays Richard Sillner, Juliana’s one-time research assistant; and Bobby, a nurse.

Theatrical Context

*The Other Place*, by Sharr White, was originally produced by MCC Theatre in association with Marc Platt. It opened March 28, 2011 at the Lucille Lortel Theatre in New York City, directed by Joe Mantello and starring Laurie Metcalf as Juliana. In 2013, it opened on Broadway, again directed by Joe Mantello and starring Laurie Metcalf as Juliana, as well as Zoe Perry (Laurie Metcalf’s daughter!) as The Woman. For this production, Laurie Metcalf received a 2013 Tony Award Nomination – Best Performance by an Actress in a Leading Role in a Play – and the run was extended due to popularity.

Excerpt from: Sharr White on Vulnerability, Mortality & the Dark Inspiration Behind His New Drama The Other Place

A particular feature of the very smart people in my life is that they think their sheer intelligence can protect them from all manner of harm. It’s a beautiful, yet very vulnerable form of arrogance. (A note to the very smart people I love whom I’m about to mention: I’m not calling you arrogant...just your sense of invulnerability).

My father, for instance, who is a professor of biophysics and physiology, often comforted my boyhood fears of the natural world with soothing scientific explanations, as if very real dangers could be rendered harmless simply by holding an enthusiastic understanding of them: lightning is just static electricity, he would tell me; or heat stroke is just a matter of the proteins in your brain becoming denatured—like fried egg whites; or my favorite, that fascinatingly, spider venom works by destroying the base structure of your cellular membranes, causing massive local hemorrhaging, thus allowing the insides of victims to be sucked out "like a milkshake." Nothing to be afraid of.

And then there’s my brother, with his degree in astrophysics from Berkeley, who often calmed my fears regarding his various adrenalized adventures by telling me that his years of studying how things move on a micro and macro level gave him an edge of safety when it came to things like, for instance, backcountry snowpack, fine ice crystals and gravity. (Yet all his knowledge did not grant him immunity from the laws of physics the day he was caught in an avalanche—yes, miraculously, he lived.)

So when I first set out to write a story about a woman who finds her world crumbling around her, it felt right that I should cut her from this same cloth.

Historical / Social Background

About the Playwright

Adapted from sharrwhite.com and broadway.com

Sharr White began writing plays more than 15 years ago, after earning an M.F.A. from the graduate acting program at American Conservatory Theater in San Francisco. This former aspiring actor now divides his time between playwriting, a full-time job as a fashion advertising copywriter and raising two sons with his wife in the picturesque Hudson River town of Cold Spring, NY.

White’s plays have been developed or produced at theatres across the country and Europe, including Manhattan Theatre Club, MCC Theatre, Nationaltheater Mannheim, Melbourne Theatre Company, The Magic Theatre, South Coast Repertory, Actors Theatre of Louisville, Oregon Shakespeare Festival and more. For The Other Place he was the recipient of the 2010 Playwrights First Award; the 2011 Blanche and Irving Laurie Foundation’s Theatre Visions Fund Award; and was an Outer Critics Circle Award nominee for Outstanding New Off-Broadway Play.

White’s The Snow Geese premiered on Broadway at the Samuel J. Friedman theatre in October 2013, starring Mary Louise Parker and directed by Daniel Sullivan, as a co-production between Manhattan Theatre Club and MCC Theatre.


Study Links

Here are some curriculum connection points and sample discussion questions. These questions may be used to prompt conversations in your classroom.

**English/Creative Writing**
According to Sharr White, Juliana is an “unreliable narrator”. How does this choice impact the dramatic nature of his play? What are other examples of stories, books or plays with unreliable narrators at their helm?

**Literature**
How does White’s script illustrate common discussions around the modern individual and family? Specify which themes or issues *The Other Place* highlights and find other literary examples that explore similar topics.

How has Sharr White managed to grab your interest and make you think about a particular topic or issue? Does *The Other Place* effectively challenge any of your pre-existing attitudes? Why or why not?

Do you believe that *The Other Place* is a fair example of North American society in 2014? Consider White’s comment that this is “a play about this woman within the circumstance that she’s in [and not] about what she’s got.” Are Juliana’s circumstances reflective of a universal modern story?

**Social Sciences and Humanities**
At the core of *The Other Place* is the theme of loss and grief. According to theorists such as Murray Bowen (“emotional cutoff”), what are the distinctions between the symptoms of estrangement and grief?

Identify different stages of grief, and some of the steps people go through to cope with their grief. How may we use these processes to justify the actions of

**Psychology**
Memory is at the core of *The Other Place*. In fact, the title of the play directly refers to fond memories associated with Cape Cod, a place which our lead character associates with happier times. What are theories around memory that are relevant to this script? Consider specifically theories surrounding ‘spatial memory’.

**Drama**
From Anne Carson’s introduction to *Grief Lessons: Four Plays, by Euripides*:
“Why does tragedy exist? Because you are full of rage. Why are you full of rage? Because you are full of grief.”

It is interesting to consider that Daniel Brooks, *The Other Place*’s director, is inspired by a quote written as part of an introduction to new translations of four Greek tragedies by Euripides. Does Sharr White’s play share other characteristics, besides exploration of the theme of grief, with tragedies from ancient Greece? Consider the application of Carson’s statement (from the same essay), “There is a theory that watching unbearable stories about other people lost in grief and rage is good for you—may cleanse you of your darkness. Do you want to go down to the pits of yourself all alone? Not much. What if an actor
could do it for you? Isn’t that why they are called actors? They act for you. You sacrifice them to action. And this sacrifice is a mode of deepest intimacy with your own life. Within it you watch yourself act out the present or possible organization of your nature. You can be aware of your own awareness of this nature as you never are at the moment of experience. The actor, by reiterating you, sacrifices a moment of his own life in order to give you a story of yours.”

**Biology and Neuroscience**
Sharr White has said that he “wanted a structure that had a metaphor to it...[he] sort of felt that there was a metaphor in the protein misfolding in a way that the structure of the play is a very, you know, sort of densely folded structure.”

Describe the process of protein folding? How is the structure of *The Other Place* reflective of this scientific process? Why is this an appropriate comparison in the context of this theatre production?

**Critical Exploration**

- Unreliable Narrator (English, writing, and playwriting)
- Estrangement (Sociology and relationships)
- Dementia (Health science & and mental health)
- Memory and the Brain (Biology, neuroscience and psychology)
- Protein Folding (Biology and neuroscience)

**Unreliable Narrator**

“She is really the ultimate narrator – sorry, the ultimate unreliable narrator.” Sharr White


**Excerpt from: Sharr White on Vulnerability, Mortality & the Dark Inspiration Behind His New Drama The Other Place**

When we first meet her, Juliana, the protagonist (or is she the antagonist?) in my play *The Other Place*, is the embodiment of this fragile arrogance of intelligence. She is by any measure one of the smartest people on earth: witty, sharp, sexy, aggressive and self-assured. And yet because so much of herself hinges on her estimation of her great mind, she also exists in a terrible state of vulnerability. Take her mind away—even a little bit of it—and what does she have left?

Several years ago the wonderful Salt Lake City actor Paul Kiernan told me that at heart my plays are about lost people who become found. This was crucial for me to know while building Juliana’s character and circumstances. Juliana’s journey through *The Other Place* needed to be one in which, bit by bit, everything she knows is stripped away. I found that as I worked, **Juliana’s central action became, over and over, fighting to hold on; to convince people that what she was seeing, and hearing, and doing was the correct version of reality.** From her perspective, how could it not be, given her intelligence?
One of the issues that began arising was that this action began to create a sort of feedback loop; her aggressive self-assuredness only grew as she fought to hold on to her version of reality.


**Unreliable Narrator in The Concise Oxford Dictionary of Literary Terms**

An unreliable narrator is a narrator whose account of events appears to be faulty, misleadingly biased, or otherwise distorted from the ‘true’ understanding of events shared between the reader and the implied narrator. The discrepancy between the unreliable narrator’s view of events and the view that readers suspect to be more accurate creates a sense of irony. The term does not necessarily mean that such a narrator is morally untrustworthy or a habitual liar (although this may be true in some cases), since the category also includes harmlessly naïve, ‘fallible’, or ill-informed narrators. A classic case is Huck in Mark Twain’s *Adventures of Huckleberry Finn* (1884): this 14-year-old narrator does not understand the full significance of the events he is relating and commenting on. Other kinds of unreliable narrators seem to be falsifying their accounts from motives of vanity or malice. In either case, the reader is offered the pleasure of picking up ‘clues’ in the narrative that betray the true state of affairs.


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**JULIANA:** And I think to myself, my God, am I having a stroke, except that I’m oddly not able to locate the word *stroke*, so it’s more like *my God am I having a thingy?* Finally I, I manage to say... I’m terribly sorry, this is terribly strange, I’ve... suddenly become a little ill and must break this lecture off midway, my deepest apologies.

**IAN:** And really, almost as one entity, every doctor in the room leaps to his feet. And I guess it alarms her because she turns vicious.

**JULIANA:** It’s really quite touching.

**IAN:** She begins screaming – screeching.

**JULIANA:** I’m very calmly telling them it’s the flying, I’ve been flying a lot, can someone help me to my room.

**IAN:** She runs to the front desk screaming that they’re after her, where is her room, can someone find her room, frankly I can see everyone deciding my wife is just a, a, a, crazy person – certainly you could *argue* the point, right? I mean this Richard Sillner guy she keeps mentioning...

**JULIANA:** And, and, and... I get up to my room. And I have a little rest. And I call Laurel and Richard.

**IAN:** Uh. You see, Richard... it’s complicated... died. OK? Five – six – years ago. I... we read about it. Uh. His suicide.

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(White, 22–23)
Excerpt from Ask The Writer, by Brandy Reissenweber:

**Why would I want to use an unreliable narrator when writing in first person?**

Unreliable narrators can create intrigue. A narrator that seems reliable may reveal details that make the reader question his credibility. This can become an evocative source of tension. Unreliable narrators can also make for complex characters. Readers may delight in discovering the reasons behind the narrator’s lack of reliability and going deeper into his peculiarities and motivations.

To some extent, all first person narrators are unreliable. After all, they are recounting events filtered through their own unique set of experiences, beliefs and biases. There isn’t just one absolute experience of reality. A first person narration will be shaded by everything that makes that particular character unique and individual. This is true of even the most honest and objective personalities.

... Of course, there are certainly narrators who are more unreliable than others. They may misunderstand or misreport events, leaving readers to make their own judgments. Holden Caulfield in J.D. Salinger’s *The Catcher in the Rye* is unintentionally unreliable. His youth and inexperience often obscures his full understanding of some of the people he meets and situations he describes. The narrator in Edgar Allen Poe’s short story “The Tell Tale Heart” is mad, leaving the reader to sort out delusion from reality. In Vladimir Nabokov’s novel *Lolita*, Humbert Humbert often describes scenes in a way that justifies his sexual desire for twelve-year-old Lolita. Humbert Humbert, no doubt, believes this version of events, but the reader can see beyond his perspective.

Some people simply cannot (or choose not to) be on the up and up. This is another facet of the human experience that fiction can explore.


**For Discussion**

- What makes Juliana an unreliable narrator?
- What are some examples of unreliable narrators in books, films and plays?
- Why would an author want to use an unreliable narrator?

**Estrangement and Grief**

**JULIANA:** And I told her that I...that I wanted her out of my house. Tonight. *(Silence. Juliana realizes something.)* Music’s stopped.

*(White, 34)*
At the end of *The Other Place*, it is not entirely clear how Juliana’s relationship with her daughter Laurel was terminated. Juliana remembers telling Laurel to leave their house, and Ian tries to remind her that Laurel died. The grief that Juliana feels for her missing daughter, along with her mental degeneration, leads her to believe delusionally that Laurel is still a part of her life. Hallucinations wherein deceased loved ones appear to be alive are quite common among people who are grieving, and it is likely that this experience is exacerbated by Juliana’s dementia.

Grief can be felt by those who are bereaved (in the case of the death of a loved one), and also by those who have experienced other types of loss, such as a divorce or estrangement from a family member. Estrangement is becoming more and more common in Western culture and can have a huge impact on a person’s mental health.

**What does estrangement mean?**

Emotional cut-off, a term coined by American psychiatrist Murray Bowen, is described as “people managing their unresolved emotional issues with parents, siblings, and other family members by reducing or totally cutting off emotional contact with them” in order to reduce their anxiety. This type of distancing can happen on a physical level – literally moving far away from an abusive member of one’s past or simply refusing to see them, or on a more interactive level – avoiding [sic] sensitive topics of conversation or otherwise closely “managing” the relationship through one’s behaviour and communication style.

According to Bowen Theory, those who use emotional cut-off as a coping mechanism often ironically end up trying to replicate their prior relationships in their new ones in order to fill an emotional hole or make things “different this time.” This can result in a lot of stress on family, friends, or colleagues - and can also, in some cases, lead to the repetition of abusive patterns.


**Estrangement Today**

There are no official statistics to show that the problem is increasing. But numerous leading psychologists claim it is, and online chatter suggests it is.... The American Journal of Sociology published a report in 2006 which showed at least ‘one in 25 people have stopped contact with at least one family member for months or years’.


Joshua Coleman, a San Francisco psychologist who is an expert on parental estrangement, says it appears to be growing more and more common, even in families who haven’t experienced obvious cruelty or traumas like abuse and addiction. Instead, parents often report that a once-close relationship
has deteriorated after a conflict over money, a boyfriend or built-up resentments about a parent’s divorce or remarriage.

“We live in a culture that assumes if there is an estrangement, the parents must have done something really terrible,” said Dr. Coleman, whose book When Parents Hurt (William Morrow, 2007) focuses on estrangement. “But this is not a story of adult children cutting off parents who made egregious mistakes. It’s about parents who were good parents, who made mistakes that were certainly within normal limits.”

(From When the Ties That Bind Unravel http://well.blogs.nytimes.com/2010/05/03/when-the-ties-that-bind-unravel/?_php=true&_type=blogs&_php=true&_type=blogs&_r=1&)

JULIANA: I’m sorry! I’m sorry, sweetheart, I’m so sorry! I didn’t mean it, I didn’t mean any of it! We looked for you, we looked so hard for you...

(White, 34)

The Other Place director Daniel Brooks says he connects Juliana’s heroic struggle with her grief to this quotation:

“Why does tragedy exist? Because you are full of rage. Why are you full of rage? Because you are full of grief.”

- Anne Carson in her introduction to Grief Lessons: Four Plays, by Euripides

Dementia

Sharr White on the word Alzheimer’s

“It was [used in an earlier draft of The Other Place]. It was in all the earlier drafts until we started finally heading into the rehearsal process at MCC. Joe thought, ‘Let’s go through it just to see what happens if we take the word Alzheimer’s out.’ It was in there three times, I think, in the final rehearsal script. Again, that was really about not making it an Alzheimer’s play but making it a play about this woman within the circumstance that she’s in. We very much didn't want to make it about what she’s got.”


JULIANA: I mean if I had dementia, I would know about it, don’t you think, I’ve been studying goddamned dementia all my life, I’m fifty-two, I don’t have dementia, what sort of dementia, do I sound demented to you?

IAN: – That’s what I’m saying sweetheart, you, you really do.

(White, 26)
About Dementia

Dementia is not a specific disease. It’s an overall term that describes a wide range of symptoms associated with a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities.

Many dementias are progressive, meaning symptoms start out slowly and gradually get worse. At least two of the following core mental functions must be significantly impaired to be considered dementia:

- Memory
- Communication and language
- Ability to focus and pay attention
- Reasoning and judgment
- Visual perception


As of 2010, more than 35.6 million people worldwide are living with dementia, or more than the total population of Canada. The global prevalence of dementia stands to double every 20 years, to 65.7 million in 2030, and 115.4 million in 2050.


Symptoms and Behaviours

Behaviours [...] include aggression, wandering, and agitation. These apparent changes in the personality of the person with the disease are a major source of distress both to the person who is presenting the behaviours and to those who experience them – the caregiver, the family members, and the service providers in all sectors of the health-care system. Behaviours associated with dementia include:

- Wandering – Walks away from home unattended with the risk of becoming lost
- Restlessness – Paces nervously, drums fingers, etc. for long periods of time
- Repeated actions – Repeats words or actions over and over and over again
- Suspicion – Thinks others are trying to hurt her[/him]; Accuses others of stealing possessions
- Sexual behaviour – Removing clothes/exposing herself; Physical and verbal advances towards others
- Aggression – Physical and emotional outbursts (i.e., shouting, hitting)

Delusions are false beliefs. Even if you give evidence about something to the person with dementia, she will not change her belief. For example, a person with dementia may have a delusion in which she believes someone else is living in her house when she actually lives alone.
Delusions can also be experienced in the form of paranoid beliefs, or accusing others for things that have not happened. For example, the person with dementia may misplace an item and blame others for stealing it. Some people with dementia may have the delusion that others are "out to get them." For example, he may believe that his food is being poisoned.

**Hallucinations** are incorrect perceptions of objects or events involving the senses. They seem real to the person experiencing them but cannot be verified by anyone else. Hallucinations are a false perception that can result in either positive or negative experiences.

Hallucinations experienced by people with dementia can involve any of the senses, but are most often either visual (seeing something that isn't really there) or auditory (hearing noises or voices that do not actually exist). For example, a visual hallucination could be seeing bugs crawling over the bed that aren't actually there. Of course, people also make "visual mistakes," mistaking a housecoat hanging up for a person, for example, because they can't see the object clearly. This can happen to anyone, and is not considered a hallucination.


**Causes**

Dementia is caused by damage to brain cells. This damage interferes with the ability of brain cells to communicate with each other. When brain cells cannot communicate normally, thinking, behaviour and feelings can be affected. When cells in a particular region are damaged, that region cannot carry out its functions normally.

Different types of dementia are associated with particular types of brain cell damage in particular regions of the brain. For example, in Alzheimer's disease, high levels of certain proteins inside and outside brain cells make it hard for brain cells to stay healthy and to communicate with each other. The brain region called the hippocampus is the center of learning and memory in the brain, and the brain cells in this region are often the first to be damaged. That's why memory loss is often one of the earliest symptoms of Alzheimer's.

Memory and the Brain

JULIANA: Did that fellow set all my things up.
IAN: Bobby? ... Is right here.
JULIANA: (Embarrassed.) ... Oh.
BOBBY: I’ve got everything down in the conference room, my name is in a card in your left pocket.
JULIANA: Because I’m still bluffing that I remember things.

(White, 42)

Memory loss is one of the most major symptoms of dementia, and it certainly has an effect on Juliana. She is constantly remembering “the other place” – her old house in Cape Cod – which she still thinks she owns. However, she has trouble remembering newer information, like where she put her wedding ring while washing the dishes. This is likely because it is easier for the brain to remember something that it has recalled many times before than information it has never or seldom tried to recall.

How Memory Works

Every time you learn something, neural circuits are altered in your brain. These circuits are composed of a number of neurons (nerve cells) that communicate with one another through special junctions called synapses.

When you learn something, it is actually these synapses whose efficiency increases, thus facilitating the passage of nerve impulses along a particular circuit. For example, when you are exposed to a new word, you have to make new connections among certain neurons in your brain to deal with it: some neurons in your visual cortex to recognize the spelling, others in your auditory cortex to hear the pronunciation, and still others in the associative regions of the cortex to relate the word to your existing knowledge.

To learn this new word, you repeat it to yourself several times, and this selects and strengthens the connections among these various circuits in your cortex. And it is this new, durable association among certain neurons that will form your memory of this word. The strength of this association may of course depend on several factors.

To remember the word days or years later, you will have to successfully reactivate these same neural circuits. Obviously, this will be easier if, when you first learned the word, you built these circuits to last, by repeating the word and thus sending the corresponding nerve impulses down them many times. In contrast, if you repeated the word only a few times, then the connections among the new neurons would be weaker, and the new circuit would be harder to reactivate.

All your memories (of events, words, images, emotions, etc.) thus correspond to the particular activity of certain networks of neurons in your brain that have strengthened connections with one another.

STUDY GUIDE: THE OTHER PLACE
Remembering Places

Spatial memory is responsible for recording details about one’s environment and spatial orientation. Recent studies have proven that spatial memory is closely linked to episodic memory, which records events. That is why being in a particular place can trigger vivid memories of past experiences, and conversely, thinking of past experiences can vividly call to mind a place associated with them.

A 2013 study conducted at the University of Pennsylvania found evidence that in recalling an episodic memory the brain also retrieves information about its spatial context. Researchers asked participants in the study to remember specific information about a task they completed and then observed their brain activity. The participants showed increased activity in the place-responsive cells in the hippocampus. These place-responsive cells are the neurons which keep track of your location and environment. Their activation when people recall specific memories helps call to mind other events that occurred in the same spatiotemporal location.

This research helps neurologists and psychologists understand why people often have such strong associations between a place and the memories of events they experienced there. It could also help explain some triggers of post-traumatic stress disorder (PTSD); for example, how “being at a gas station or the smell of diesel are ‘geotagged’ and can trigger vivid flashbacks that take a veteran back to the battlefield” (Bergland). Psychology Today contributor Christopher Bergland believes that this place-related encoding “is probably a survival mechanism designed to hardwire a fear response that protects us from revisiting environments that aren’t safe and helps us to navigate the world without putting our lives in danger.”

Sources:


Protein Folding

“I wanted a structure that had a metaphor to it...I sort of felt that there was a metaphor in the protein misfolding in a way that the structure of the play is a very, you know, sort of densely folded structure.”
– Sharr White


"The artistry with which [Sharr White] relates this story – how the dramatic structure itself reflects the protagonist’s deceptive state of mind – is impressive."
- Michael Sommers for The New Jersey Newsroom


Protein Folding

Proteins are the elementary machines inside every cell that we rely on to keep us alive and healthy. They assemble themselves by “folding.”

What are proteins?

Proteins are necklaces of amino acids — long chain molecules. They come in many different shapes and sizes, and they are the basis of how biology gets things done. As enzymes, they are the driving force behind all of the biochemical reactions which make biology work. As structural elements, they are the main constituent of our bones, muscles, hair, skin and blood vessels. As antibodies, they recognize invading elements and allow the immune system to get rid of the unwanted invaders. They also help move muscles and process the signals from the sensory system.

Why do proteins “fold”?

In order to carry out their function (eg as enzymes or antibodies), they must take on a particular shape, also known as a “fold.” Thus, proteins are truly amazing machines: before they do their work, they assemble themselves! This self-assembly is called “folding.” Out of an astronomical number of possible ways to fold, a protein can pick one in microseconds to milliseconds (i.e. in a millionth to a thousandth of a second). How a protein does this is an intriguing mystery.
**Protein folding and disease**

What happens if proteins don’t fold correctly? Diseases such as Alzheimer’s disease, cystic fibrosis, BSE (Mad Cow disease), an inherited form of emphysema, and even many cancers are believed to result from protein misfolding. When proteins misfold, they can clump together (“aggregate”). These clumps can often gather in the brain, where they are believed to cause the symptoms of Mad Cow or Alzheimer’s disease.


Further reading about protein folding:
This Study Guide was created and compiled by:

Erin Schachter, Education & Audience Development Manager
Ceilidh Wood, Education & Audience Development Coordinator
Michael Gregor, Education Intern (OISE)

Educator Outreach Program Sponsor:

Canadian Stage Educator Advisory Committee, 2014.2015

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Erin Schachter
alicia.roberge@tdsb.on.ca

Alicia Roberge  Marc Garneau, TDSB
Christine Jackson  TDSB
Janet O’Neill  TDSB
Jennifer Burak  Arts Educator
Julian Richings  Arts Education Consultant
Laurence Siegel  Arts Education Consultant
Melissa Farmer  Branksome Hall, CIS
Michael Limerick  Monarch Park, CIS
Sally Spofforth  Marc Garneau, TDSB
Shawn Rocheleau  Middlefield CI, YRDSB
jenniferburak@hotmail.com
julianrichings@tcs.com
ljsiegel@sympatico.ca
mfarmer@branksome.on.ca
Michael.limerick@tdsb.on.ca
sallyspofforth@sympatico.ca
shawn.rocheleau@yrdsb.ca
eschachter@canadianstage.com