Section 1: Reading Provided by Madrona Tutoring

"You who read me, are You sure of understanding my language?"

- Jorge Luis Borges, The Library of Babel

The Basics:

In this section there are five passages, with about ten questions each, to be completed in sixty five minutes. That boils down to twelve minutes per passage: six minutes to read, and six minutes to answer questions.

There is no particular rhyme or reason to which passages are presented, but you can be sure of two things: two passages will be over one hundred years old, and one passage will be a comparison.

Many students find that they are comfortable with the story passages, but not very comfortable with science, humanities or old materials. This is because generally, students have only been exposed to two types (genres) of reading material: narrative fiction in English class and textbooks. The best way to get better at the reading section is to practice reading old British fiction, and some modern science and economics journals.

This isn't English class:

I assume you read the Crucible, and The Lord of the Flies. Did your teachers ever ask you "What it means that the title of the play is "The Crucicle"? Or perhaps "What does the conch represent?"

These kinds of questions are really good at getting students to engage with the text, and have them make connections to literary and political ideas that are not in the text. And **that is the exact opposite of what I want you to do** in the SAT.

You should read all the passages logically and **literally**. The conch might represent something (and we can all argue about what it represents) in the *Lord of the Flies*, but the only thing that is clear from the text is that it is a shell the boys fight over.

An example:

TEXT: Jeremiah had a stomach ache before going to class.

QUESTION: Was Jeremiah anxious about class?

No. He had a stomach ache. It could be that he was anxious. We'll never know. Approach the reading section as literally as possible. It will help you sift through the bad answers easily, and increase your score.

Preparation:

Unsurprisingly, reading is the most important preparation for the reading section.

If you commit to reading half an hour a day until the test day, you will improve your basic readings skills immensely and be able to retain more information about what you read as well as be more efficient in answering the questions. Seriously. Just half an hour a day.

Pick something kind of fun, but old, like *A Christmas Carol* or *Pride and Prejudice*. Both are a good balance of interesting and slightly difficult because of the way they were written.

Another good idea is to read articles from the Wall Street Journal or the Economist (Both of which are available for free online). They are perfect practice for the science sections: short, fairly difficult articles about things you don't know about.

First: The Blurb

Before you start to read a passage, I want you to read the little blurb at the top. It will tell you the author, the date, and where the selection was taken from. All of this is important information. If it's over fifty years old, you know that it will be a harder read, and if you know something about the subject, or happen to know the author, you'll know that your knowledge could help you out.

That said, **if you don't know anything about the author or the text, I want you to admit it to yourself. Say it out loud in your head.** If you admit you have no idea what the passage is about, your brain will kick into high gear from the start.

Then: Reading and Underlining

You need to **read the passage before you look at the questions**. When you do start reading, circle names and dates, and underline things that seem interesting to you. It could be anything honestly; the point of underlining is that you will be better focused on what you are reading if you are looking for something to underline.

Next: The Questions

After you've read the passage, all that's left is to answer the questions. However, not all questions are made equally. You'll notice that there are general questions, and line specific vocabulary questions. Do the line number questions first (To be clear, I don't mean the questions that have line numbers as answers, but the questions that have line numbers in the question). They are far easier, and quicker to do. They also give you an opportunity to re-read part of the text before you answer any general questions.

Finally: Looking at the answers

The answers are the most important part of any question. It is essential to realize that it's not just that there is one right answer, but that there are three other answers which are wrong *for very specific reasons*. I want you to read every one of the answers. Eliminate three of them using a specific reason. You will see a lot of answers that look like this:

Spongebob lives in a pineapple under the sea in string bikini bikini bottom.

As you read the beginning of the sentence, everything seems correct, but as you get to the end of the sentence there's a single detail that makes it wrong. The SAT loves to give answers like this.

Read every answer, and find particular reasons to eliminate the three bad answers.

The following are common types of incorrect answers that, if you can recognize, will make it easier to eliminate the incorrect answers.

1. The Reasonable Assumption.

These types of answers seem like they are logical conclusions that can be arrived from the text, but really they require you to assume something about the text which is not there. Usually these are the kinds of answers that your English teacher likes. So use that as a measuring stick. Remember: if it seems reasonable because it's adding information that was not actually in the test, it's wrong.

TEXT: Susy loves to each sushi.

QUESTION: Is Susy's favorite food sushi?

No. She loves to eat sushi. The text did not say that sushi was her favorite food.

2. The Mix up

These answers will include details from the text, but will reverse their order, or their relationship. These answers try to get you by naming specifics from the passage that you know are important, but blurring the lines on how they are related to each other.

TEXT: Gerry the butcher prepared two pounds of filet mignon for Suzy Q.

Mixed up answer: Suzy Q prepared a filet mignon for Gerry the Butcher.

3. Irrelevant info.

As you might have guessed, these answers add irrelevant information to an answer. They usually include a couple of true details from the passage, but then add something else which is just not in the passage at all, and sometimes not even related to it.

TEXT: Making cheese sauce from scratch is pretty easy. First you melt butter in a pan and add a spoonful of flower. After that's mixed together, you add milk, and then the cheese you want to melt.

Irrelevant answer: Making macaroni and cheese is easy because after you've melted the butter, all you have to do is add the flour, milk, cheese and horseradish.

While horseradish in macaroni and cheese might be delicious, it was not in the text. It has nothing to do with it. The text was just about cheese sauce.

A Note on Freaking out and Skimming:

Many students are tempted to start skimming passages and hunting for answers when they realize they're running out of time. **They always end up with a worse score as a result.** If you start to run out of time, just keep doing good work, and answering the questions the way we've discussed. When you have about a minute left, you should guess on the remaining questions Let me show you:

Doing good work, Johnny got the following:

- Passage 1: 9 right, 1 wrong
- Passage 2: 9 right, 1 wrong
- Passage 3: 9 right, 1 wrong

But He realized he only had 10 minutes left for the last two passages! Johnny goofs it up and tries to skim the last two passages!

- Passage 4: 3 right, 8 wrong.
- Passage 5: 3 right, 8 wrong.

So, in the end Johnny got 33 out of 52 questions right. That's just above average, and would produce a score like 290 out of 400 points.

If Johnny had just kept to the plan his last couple of passage would have looked like this:

- Passage 1: 9 right, 1 wrong
- Passage 2: 9 right, 1 wrong
- Passage 3: 10 right, 1 wrong (10 minutes left. *Johnny Considers freaking out, but doesn't.*)
- Passage 4: 10 right, 1 wrong (Johnny has one minute left at the end of the passage)
- Passage 5: 2 right, 8 wrong

So in this version of the test, Johnny kept his head, and did slow, good work and as a result nabbed 40 points out of 52. (21% improvement). And now his score would be more like 330 out of 400. Now I know you're asking "if he only had a minute left after the fourth passage, then how did he grab two points on the last passage?"

That's easy. He didn't read the passage at all, or any of the questions. He just guessed all A's by bubbling in the answers in a straight line. And he picked up three points because, statistically, you'll get one out of four right if you guess the same letter every time.

Bottom line: If you begin to run out of time, keep doing the good work, and then guess when you run out of time. You're trying to get points, not read the whole test.

Narrative Fiction

Peter Pan, by James M. Barri (1904)

All children, except one, grow up. They soon know that they will grow up, and the way Wendy knew was this. One day when she was two years old she was playing in a garden, and she plucked another flower and ran with it to her mother. I suppose she must have looked rather delightful, for Mrs. Darling put her hand to her heart and cried, "Oh, why can't you remain like this for ever!" This was all that passed between them on the subject, but henceforth Wendy knew that she must grow up. You always know after you are two. Two is the beginning of the end.

Of course they lived at 14 [their house number on their street], and until Wendy came her mother was the chief one. She was a lovely lady, with a romantic mind and such a sweet mocking mouth. Her romantic mind was like the tiny boxes, one within the other, that come from the puzzling East, however many you discover there is always one more; and her sweet mocking mouth had one kiss on it that Wendy could never get, though there it was, perfectly conspicuous in the right-hand corner.

The way Mr. Darling won her was this: the many gentlemen who had been boys when she was a girl discovered simultaneously that they loved her, and they all ran to her house to propose to her except Mr. Darling, who took a cab and nipped in first, and so he got her. He got all of her, except the innermost box and the kiss. He never knew about the box, and in time he gave up trying for the kiss. Wendy thought Napoleon could have got it, but I can picture him trying, and then going off in a passion, slamming the door.

Mr. Darling used to boast to Wendy that her mother not only loved him but respected him. He was one of those deep ones who know about stocks and shares. Of course no one really knows, but he quite seemed to know, and he often said stocks were up and shares were down in a way that would have made any woman respect him.

Mrs. Darling was married in white, and at first she kept the books perfectly, almost gleefully, as if it were a game, not so much as a Brussels sprout was missing; but by and by whole cauliflowers dropped out, and instead of them there were pictures of babies without faces. She drew them when she should have been totting up. They were Mrs. Darling's guesses.

Wendy came first, then John, then Michael.

For a week or two after Wendy came it was doubtful whether they would be able to keep her, as she was another mouth to feed. Mr. Darling was frightfully proud of her, but he was very honourable, and he sat on the edge of Mrs. Darling's bed, holding her hand and calculating expenses, while she looked at him imploringly. She wanted to risk it, come what might, but that was not his way; his way was with a pencil and a piece of paper, and if she confused him with suggestions he had to begin at the beginning again.

"Now don't interrupt," he would beg of her. "I have one pound seventeen here, and two and six at the office; I can cut off my coffee at the office, say ten shillings, making two nine and six, with your eighteen and three makes three nine seven, with five naught naught in my cheque-book makes eight nine seven-who is that moving?eight nine seven, dot and carry seven-don't speak, my own-and the pound you lent to that man who came to the door-quiet, child-dot and carry child-there, you've done it!-did I say nine nine seven? yes, I said nine nine seven; the question is, can we try it for a year on nine nine seven?"

- 1. According to the passage, what does Wendy see in her mother that her father didn't ever get?
 - (a) The conspicuous way she walked around the room.
 - (b) The fresh flowers that she plucked from the garden.
 - (c) The elusive kiss in the corner of her mother's mouth.
 - (d) Napoleon's approval.
- 2. What is the principle aspect of Mr. Darling that the narrator asserts makes women respect him?
 - (a) His wide culinary expertise.
 - (b) The fact that he not only loves, but respects his wife.
 - (c) That he took a cab to propose to Mrs. Darling.
 - (d) The way that he says that stocks were up and shares were down.
- 3. What does Mr. Darling think they can try for a year on nine nine seven?
 - (a) Financially caring for their first child, Wendy.
 - (b) Being charitable to men who come to the door for help.
 - (c) Making sure that both the brussel sprouts and the cauliflours don't drop out.
 - (d) His office coffee allowance.
- 4. The narrator's tone in the passage is primarily:
 - (a) Morose
 - (b) Sarcastic

(c) Exuberant

(d) Dejected

Social Science

Dash Nelson G, Rae A (2016) An Economic Geography of the United States: From Commutes to Megaregions. PLoS ONE 11(11): e0166083. doi:10.1371/journal.pone.0166083

For numerous reasons, ranging from the widening scale of labor markets to the integration of capital flows, many observers have suggested that the economic geography of the United States is now best understood in terms of "megaregions." These are assumed to be large regional areas, often cutting across state lines, that are normally centered on major metropolitan hubs and include an orbit of smaller sub-centers. To divide the country into a mosaic of such megaregions, analysts typically rely on a loosely interpretive method which takes into account physical proximity, morphological integration, and cultural similarity, in order to group major and minor cities together with rural areas into coherent regional entities.

However, the empirical problem of dividing space into discrete, bounded, internally-homogenous regions has long been a vexed problem for geographers, with attempts at providing an objective method for regionalization stretching back more than a century. While more recent scholarly work has emphasized concepts of connectivity and relationality as theoretical lines of inquiry which lead beyond the confines of bounded space, the goal of partitioning the United States into functional megaregions shows that the old problem of regional delineation remains very much alive-and unsolved. A geography based solely on what Khanna calls "connectography" fails to offer a practical framework within which to define the bounded geographic areas which continue to mark out spheres of legal jurisdiction, planning authority, transportation, and political representation.

In this paper, our contribution is to offer an empirical approach to detecting and defining megaregions which takes the insights of a relational, flowing concept of geography and puts them to use in service of delineating coherent, bounded regions. We employ a data set of more than 4,000,000 commutes as a proxy for patterns of economic interconnection, given the importance of commutes in structuring the geography of labor markets. The volume and resolution of this data set allows us to depict the interconnected nature of these labor markets at a national scale and, we hope, allows us to make a substantive methodological contribution to the study of megaregions in the United States.

We use these flows in order to provide a rigorous and evidencebased assessment of whether "megaregions" exist and, if so, what spatial forms they take. We do so through an exploration of two different approaches: one requiring visual interpretation, and the other relying strictly on algorithmic computation. In the visual interpretation method, we show how flow mapping can be used in order to show the spatial clustering of urban 'megaregions' by employing cartographic techniques that augment a visual recognition of interrelation. In the algorithmic method, we employ network partitioning software developed at the MIT Senseable City Lab in order to assess the utility and reliability of a purely statistical analysis in determining the geographical break points between communities. Such a method hints at a possibility long promised by spatial scientists: a regionalization scheme which relies entirely on spatial laws, rather than contestable human interpretation. However, we caution against the idea that regional units can be incontrovertibly determined by raw mathematical analysis alone, and show how "big data" methods are dependent not only on the reliability of input sources, but also on choices about parameters, and "common sense" checks on results.

- 1. According to the author, megaregions normally include:
 - (a) State lines, hubs and orbits of small planets.
 - (b) Cutting edge regional areas, centered on smaller countries.
 - (c) Regional areas centered on metropolitan hubs which cut accross state lines.
 - (d) Trends which take into account cultural similarity and morphological integration.
- 2. Paragraph three most closely explains what?
 - (a) The method that the authors use to make a contribution to the problem of measuring megaregions.
 - (b) How any given labor market requires at least 4,000,000 commuters.
 - (c) The importance of delineating coherent patterns, given the structure of the insights market.
 - (d) Their hope that their work will be substantively humorous.
- 3. According to the authors, what problem is very much alive today?
 - (a) Megaregions running rampant accross the condinental United States.
 - (b) Dividing space into discrete, bounded, internally homogenous regions, using empirical data.
 - (c) Contributing meaningfully to the science of geography.
 - (d) Itegrating capital flows into widening labor markets.

Humanities

The Narrative of the Life of Frederick Douglass, by Frederick Douglass (1845)

I was born in Tuckahoe, near Hillsborough, and about twelve miles from Easton, in Talbot county, Maryland. I have no accurate knowledge of my age, never having seen any authentic record containing it. By far the larger part of the slaves know as little of their ages as horses know of theirs, and it is the wish of most masters within my knowledge to keep their slaves thus ignorant. I do not remember to have ever met a slave who could tell of his birthday. They seldom come nearer to it than planting-time, harvest-time, cherrytime, spring-time, or fall-time. A want of information concerning my own was a source of unhappiness to me even during childhood. The white children could tell their ages. I could not tell why I ought to be deprived of the same privilege. I was not allowed to make any inquiries of my master concerning it. He deemed all such inquiries on the part of a slave improper and impertinent, and evidence of a restless spirit. The nearest estimate I can give makes me now between twenty-seven and twenty-eight years of age. I come to this, from hearing my master say, some time during 1835, I was about seventeen years old.

My mother was named Harriet Bailey. She was the daughter of Isaac and Betsey Bailey, both colored, and quite dark. My mother was of a darker complexion than either my grandmother or grandfather.

My father was a white man. He was admitted to be such by all I ever heard speak of my parentage. The opinion was also whispered that my master was my father; but of the correctness of this opinion, I know nothing; the means of knowing was withheld from me. My mother and I were separated when I was but an infant-before I knew her as my mother. It is a common custom, in the part of Maryland from which I ran away, to part children from their mothers at a very early age. Frequently, before the child has reached its twelfth month, its mother is taken from it, and hired out on some farm a considerable distance off, and the child is placed under the care of an old woman, too old for field labor. For what this separation is done, I do not know, unless it be to hinder the development of the child's affection toward its mother, and to blunt and destroy the natural affection of the mother for the child. This is the inevitable result.

I never saw my mother, to know her as such, more than four or five times in my life; and each of these times was very short in duration, and at night. She was hired by a Mr. Stewart, who lived about twelve miles from my home. She made her journeys to see me in the night, travelling the whole distance on foot, after the performance of her day's work. She was a field hand, and a whipping is the penalty of not being in the field at sunrise, unless a slave has special permission from his or her master to the contrary-a permission which they seldom get, and one that gives to him that gives it the proud name of being a kind master. I do not recollect of ever seeing my mother by the light of day. She was with me in the night. She would lie down with me, and get me to sleep, but long before I waked she was gone. Very little communication ever took place between us. Death soon ended what little we could have while she lived, and with it her hardships and suffering. She died when I was about seven years old, on one of my master's farms, near Lee's Mill. I was not allowed to be present during her illness, at her death, or burial. She was gone long before I knew any thing about it. Never having enjoyed, to any considerable extent, her soothing presence, her tender and watchful care, I received the tidings of her death with much the same emotions I should have probably felt at the death of a stranger.

Called thus suddenly away, she left me without the slightest intimation of who my father was. The whisper that my master was my father, may or may not be true; and, true or false, it is of but little consequence to my purpose whilst the fact remains, in all its glaring odiousness, that slaveholders have ordained, and by law established, that the children of slave women shall in all cases follow the condition of their mothers; and this is done too obviously to administer to their own lusts, and make a gratification of their wicked desires profitable as well as pleasurable; for by this cunning arrangement, the slaveholder, in cases not a few, sustains to his slaves the double relation of master and father.

1. What does the narrator not have an authentic record of?

- (a) The location of his birth.
- (b) His age and birthday.
- (c) The Identity of his mother.
- (d) His mother's daily obligations.
- 2. Why is Frederick Douglass not surprised by the idea that his father might be his previous master?
 - (a) Because he was told by his mother that his master was in fact his father.
 - (b) Because his master told him so when he was seventeen years old.
 - (c) Because fathering children and then keeping them as slaves was a practice established by habit and ordained by law.

- (d) Mr. Stewart relayed the information to Frederick when he brought Frederick's mother for a visit.
- 3. Frederick experienced his mother's death:
 - (a) with a heavy sadness brought the loss of a deep and emotional relationship.
 - (b) with the same emotions he would have felt had a stranger died.
 - (c) with a sense of anger at Mr. Stewart for permitting her to die.
 - (d) with a sense of remorse that he had not been able to visit her in her final moments.
- 4. Frederich ran away from which of the following:
 - (a) A farm in Maryland.
 - (b) The emotional consequences of his mother's death.
 - (c) His childhood troubles.
 - (d) Isaac Bailey.

Natural Science

Li L, Wang Z, Zuo Z (2013) Chronic Intermittent Fasting Improves Cognitive Functions and Brain Structures in Mice. PLoS ONE 8(6): e66069. doi:10.1371/journal.pone.0066069

Obesity prevalence has been increased over the years. About one third of American adults and 20% teenagers now are obese. High fat diet has been considered as a significant contributing factor for the pandemic of obesity in the USA. It is known that obesity and its associated metabolic disturbance including hyperlipidemia have been identified as risk factors for cardiovascular diseases, diabetes and many other diseases. However, very little is known about the effects of obesity on brain functions and structures.

Dietary restriction increases average and maximum life span. It also decreases aging-related learning and memory impairments in animals and humans. A recent study showed that caloric restriction attenuates aging-related brain atrophy in monkeys. In addition, dietary restriction can stabilize the expression of synaptic protein expression to avoid aging-related changes. These results suggest that dietary restriction attenuates the brain aging process. There are two methods of dietary restriction. One method is to provide a food allotment that is about 60 - 70% of that consumed by control animals with ad libitum food. This method is called caloric restriction and will usually result in significant decrease of body weight. The second method involves subjecting animals to intermittent (alternate-day) fasting. Intermittent fasting is known to decrease food intake and body weight over time. Interestingly, intermittent fasting but not caloric restriction for 20 weeks increases hippocampal neuron tolerance to excitotoxic stress in mice, suggesting neuroprotective effects of intermittent fasting.

Despite of the apparent significance, the effects of early onset and long-term obesity and intermittent fasting on learning and memory and brain structures have not been examined in the middle aged animals or humans (before obvious aging-related processes have started). To study these effects, we fed young mice with high fatdiet or subjected them to intermittent fasting for 11 months. Their leaning, memory, brain biochemical and structural changes were determined. We focused on measuring brain oxidative stress indices because oxidative stress is known to induce cell injury and impairment of cognitive functions. These studies simulate human teenager obesity that continues to the adulthood and also examine the protective effects of intermittent fasting on the brain under this clinically relevant condition.

1. Obesity has been identified as a risk factor for what diseases?

- (a) Crohn's Disease, Jacob-Jakobson's Syndrome, and Dementia.
- (b) Cardiovascular diseases, diabetes and others.
- (c) Learning imparement, ADHD, and strokes.
- (d) Hyperlididemia and associated metabolic disturbance.
- 2. The passage indicates that based on a study focusing on monkeys, its likely that caloric restriction:
 - (a) attenuates aging-related brain atrophy.
 - (b) decreases maximum life span.
 - (c) results in ad libitum feeding.
 - (d) decrease hippocampal nueron tolerance in mice.
- 3. Paragraph three explains that a branch of the study focused what with respect to mice?
 - (a) human teenager obesity that stops before adulthood.
 - (b) measuring brain oxidative stress indices.
 - (c) the obvious lack of neurologically protective effects of intermittent fasting.
 - (d) the effects of a high carb diet over eleven months.