Zombie Apocalypse Synthesis Practice
by Marla Delapenha

Synthesizing at least three sources, write an essay in which you discuss the issues which should be most important to consider when making decisions about surviving the coming zombie apocalypse.

(note from Marla: I had the students create the other sources, and since there really aren’t a whole lot of serious articles about this topic, I gave them a great deal of leeway. Most of them were movies.)

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George Romero’s series of zombie films, Night of the Living Dead (1968), Dawn of the Dead (1978), Day of the Dead (1985), and Land of the Dead (2005), engages in one of the fundamental questions of the last two centuries in American political philosophy: which is the superior position, individualism or communitarianism?

Individualism is the idea that the success of a society depends on self-reliance – individual hard work, ingenuity, and entrepreneurship. The individualist’s America is a place where individuals can reach their full potential unfettered by over-reaching government or the constraints of traditional societal norms and hierarchies: in essence, a place where the individual shapes society, not vice versa. Individualists tend to reject communism, for example, because it limits individual freedom, especially by placing too much emphasis on the needs of other people.

Communitarianism is the idea that societies prosper most and best when citizens cooperate. The Civil Rights Movement in American succeeded, on this account, because many citizens worked together to put the needs of the society above their own individual desires. Communitarians embrace neighborhood connectedness and group activities. They believe that a good society results from a sense of community and self-sacrifice, according to John F. Kennedy’s famous dictum: “Ask not what your country can do for you, but what you can do for your country.”

Individualism and communitarianism present two dominant American political tendencies that have been fundamentally at odds since the founding of the nation. Both these strains are at the heart of the American social contract . . . Indeed, much of American political philosophy is committed to the ideal of individualism and the notion that one person standing alone can fight the torrents. Our political, historical, and literary culture is littered with lone-actor
hero-types who are represented as saving the day by behaving in a strictly American individualistic fashion. Some political philosophers, however, have argued that individualism is not necessarily the best thing for democracy, as it has increasingly led to detachment on the part of citizens from each other. The less people feel connected by their social contract, the more likely they are to allow their sovereignty to slip away. Should they be self-reliant and only look out for themselves? Or should they connect with others and develop an ideal of the common good?

I argue that Romero’s Dead films evoke the problem of what should be at the heart of an American social contract, and that they implicitly advocate communitarianism over individualism.

According to Thomas Hobbes’ theory of the social contract . . . people are brought together because they are terrified. . . . The characters inside the besieged farmhouse in Night of the Living Dead demonstrate how a community can be formed simply out of fear. Most of the characters have never met before the terrifying events of that evening bring them together. They quickly form a governing apparatus in which two male antagonists . . . [Ben] and . . . [Cooper] vie for a position of power while a horde of zombies advances outside.

Ben is the hero of the communitarian position, working from the very start to save as many people as possible. He tries to make the farmhouse as safe as possible for himself and the traumatized, useless Barbara, even when she does nothing to help him. He exemplifies the social contract by drawing all parts of his community into the protective equation. On the other hand, Cooper, who is soon found hiding in the basement with his wife, child, and two other persons, embodies the individualist position of “every man for himself.” He admits openly that even though he heard screaming upstairs, he refused to risk his own life by coming up to help. He also advocates not going to the central community location prescribed by emergency broadcasts, in favor of maintaining the relative safety of their basement fortress (Ben argues that if they must remain in the house, it is safer upstairs).

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Three general justifications for zombie termination appear to be as follows: a) they are (or are very close to being) brain-dead; b) because of their radically altered life goals, what personality is left lacks the same personal identity as the original individual, releasing us from prior obligations; and c) after zombification they are usually homicidal cannibalistic killers. #

Each one of these justifications, however, poses a philosophical conundrum to our desire
for absolute and sharp distinctions. If zombies are only partly brain-dead, how much is left and does this matter? Is what remains of the personality of zombies after zombification an altered personal identity? If we remove the homicidal tendencies by training the individuals, as in Day of the Dead#, or chaining the individuals up, as in 28 Days Later# and Shaun of the Dead#, presumably the justification for termination on the grounds of self-defense is removed. However, we are still left with questions as to how we should treat these individuals.

Should we use them in the service industry jobs or as entertainment on game shows, as depicted in Shaun of the Dead? Do we have an obligation to terminate them out of a respect for their past identity? If your spouse is zombified, should you divorce him or her? Even if we grant the status of “dead” to the zombie, issues arise concerning our perceived obligations to the body alone.

Obligations to the body are instrumental to the Marine’s absolute commitment to “leave no man behind” (meaning by “man” a dead body), even at the potential expense of other living persons. This apparent obligation is apparent in the massive investment humans have in rituals of burial and cremation. If one takes literally a hoped-for resurrection of the body, the initial mutilation required in “finishing off” the body often leaves little of the original. Nobody usually stays behind to bury a decapitated zombie.#

The sharpest moral challenge often arises when a character is faced with the realization of the altered state of a loved one and the choice of either terminating the loved one, who is thus transformed, or being transformed oneself. In Invasion of the Body Snatchers#, the girlfriend’s personal identity is substituted when her psyche is replaced by an alien psyche in a physically identical body#. The father of the girl in 28 Days Later gets “the disease” as an infected droplet of blood falls into his eye. In Shaun of the Dead, Shaun is confronted with the required termination of his mother, whose zombie transformation is hardly great given her somewhat mindless previous state. [. . . ]

Finally, there is the question of “normal” persons’ similarity to zombies. Once sharp distinctions between “dead” and “alive,” “self” and “non-self,” are rejected, and if these concepts are admitted in terms of degree, what then are we? For the “research and development” in writing this chapter, I decided to undergo some video-gaming experiences. After getting hooked, to my horror, it was six in the morning, and I had lectures to prepare the next day. I was in a state of partial zombiehood, with continuous responsive behavior to a visual stimulus, but a state of self-awareness that could hardly be described as present. The portrayal in Shaun of the Dead of the line of checkout assistants who mindlessly (if rhythmically) “beep” the purchases of customers, or of Shaun’s best friend as he whiles away the hours playing video games followed by a rapidly induced drunken stupor at the local pub, raises the terrifying possibility of our own general normal condition of zombiehood.
(CNN) -- An airborne virus is rapidly turning people into zombies. Two-thirds of humanity has been wiped out. Scientists desperately look for a cure, even as their own brains deteriorate and the disease robs them of what we consider life.

Relax, it's only fiction -- at least, for now. This apocalyptic scenario frames the new novel "The Zombie Autopsies" by Dr. Steven Schlozman, a child psychiatrist who holds positions at Harvard Medical School and the Massachusetts General Hospital/McLean Program in Child Psychiatry.

You might not expect someone with those credentials to take zombies seriously, but it turns out the undead are a great way to explore real-world health issues: why certain nasty diseases can destroy the brain, how global pandemics create chaos and fear, and what should be done about people infected with a highly contagious and incurable lethal illness.

"One of the things zombie novels do is they bring up all these existential concerns that happen in medicine all the time: How do you define what's alive?" says Schlozman, who has been known to bounce between zombie fan conventions and academic meetings.

"When is it appropriate to say someone's 'as-good-as-dead,' which is an awful, difficult decision?"

**What a zombie virus would do to the brain**

So maybe you've seen "Night of the Living Dead," read "World War Z," or can't wait for the return of the AMC show "The Walking Dead," but you probably don't know what differentiates the brains of humans and zombies.

First things first: How does the zombie disease infect its victims? Many stories in the genre talk about biting, but Schlozman's novel imagines a deliberately engineered virus whose particles can travel in the air and remain potent enough to jump from one person to another in a single sneeze.
Now, then, to the brain-eating. The zombie virus as Schlozman describes it basically gnaws the brain down to the amygdala, an almond-shaped structure responsible for the "fight or flight" response. The zombies always respond by fighting because another critical part of the brain, the ventromedial hypothalamus, which tells you when you've eaten enough, is broken.

The brain's frontal lobes, responsible for problem-solving, are devoured by the virus, so zombies can't make complex decisions. Impairment in the cerebellum means they can't walk well, either. Also, these humanoids have an unexplained predilection for eating human flesh.

"The zombies in this book are stumbling, shambling, hungry as hell," Schlozman said. "Basically they're like drunk crocodiles; they're not smart, they don't know who you are or what you are."

**How a zombie virus would be made**

So the bloodthirsty undead wander (or crawl) around spreading a lethal illness ominously called ataxic neurodegenerative satiety deficiency syndrome, or ANSD, for short.

"When something really terrifying comes along, especially in medicine or that has a medical feel to it, we always give it initials. That's the way we distance ourselves from it," Schlozman said.

The virus has several brain-destroying components, one of which is a "prion," meaning a protein like the one that causes mad cow disease. In real life, prions twist when they are in an acidic environment and become dangerous, Schlozman said. How our own environment has changed to make prions infectious -- getting from the soil to the cows in mad cow disease, for instance -- is still a mystery.

Now here's something to send chills up your spine: In Schlozman's world, airborne prions can be infectious, meaning mad cow disease and similar nervous-system destroyers could theoretically spread just like the flu. Swiss and German researchers recently found that mice that had only one minute of exposure to aerosols containing prions died of mad cow disease, as reported in the journal *PLoS Pathogens*. A follow-up described in *Journal of the American Medical Association* showed the same for a related disease that's only found in animals called scrapie. Of course, these are mice in artificially controlled conditions in a laboratory, and humans do not exhale prions, but it could have implications for safety practices nonetheless.

Like mad cow disease, the zombie disease Schlozman describes also progresses in acidic environments. In the book, a major corporation doles out implantable meters that infuse the body with chemicals to artificially lower acidity when it gets too high. But, sadly, when acidity is too
low, that also induces symptoms that mimic the zombie virus, so it's not a longterm solution. Everyone who gets exposed eventually succumbs, Schlozman said.

As for the unknown component of the zombie disease that would help slowly zombifying researchers in their quest for a cure, that's up for the reader to figure out -- and the clues are all in the book, Schlozman said.

**How we'd fight back**

You can't ethically round up fellow survivors to kick some zombie butt unless the undead have technically died. And in Schlozman's book, a group of religious leaders get together and decide that when people reach stage four of the disease, they are basically dead. That, of course, permits zombie "deanimation," or killing.

And how do you kill a zombie? Much of zombie fiction knocks out zombies through shots to the head. That, Schlozman said, is because the brain stem governs the most basic functioning: breathing and heartbeat.

A zombie-apocalypse disease like the one he describes probably wouldn't evolve on its own in the real world, he said.

But, as we've seen, individual symptoms of zombies do correspond to real ailments. And if they all came together, the disease would be creepily efficient at claiming bodies, Schlozman said.

Bad news, folks: Even if people contracted a zombie virus through bites, the odds of our survival aren't great.

A mathematician at the University of Ottawa named Robert Smith? (who uses the question mark to distinguish himself from other Robert Smiths, of course), has calculated that if one zombie were introduced to a city of 500,000 people, after about seven days, every human would either be dead or a zombie.

"We're in big, big trouble if this ever happens," Smith? said. "We can kill the zombies a bit, but we're not very good at killing zombies fundamentally. What tends to happen is: The zombies just win, and the more they win, the more they keep winning" because the disease spreads so rapidly.

The best solution is a strategic attack, rather than an "every man for himself" defense scenario, he said. It would take knowledge and intelligence, neither of which zombies have, to prevail.
Why study zombies?

In his day job, Smith? models how real infectious diseases spread. But he's already reaped benefits from his work on zombies. For instance, while many mathematical models only deal with one complicated aspect of a situation at a time, he tackled two -- zombie infection and zombie-killing -- when it came to speculating about outbreaks.

When it came time for modeling of real-world human papillomavirus (HPV), then, Smith? felt equipped to handle many facets of it at the same time, such as heterosexual and homosexual transmission of HPV.

"Knowing what we knew from zombies allowed us to actually take on these more complicated models without fear," he said.

Studying zombies is also a great way to get young people excited about science. Smith?, who was on a zombie-science panel with Schlozman through the National Academy of Sciences' Science and Entertainment Exchange in 2009, has also seen math-phobic people get interested in mathematics by reading about his work with zombies.

"There are insights that we gain from the movies, and from fiction, from fun popular culture stuff, that actually can really help us think about the way that science works, and also the way science is communicated," he said.

And as to why people like reading about zombies and watching zombies so much, Schlozman points to the impersonal nature of things in our society, from waiting in line in the DMV to being placed on hold on a call with a health insurance company.

Think about all the situations in daily life where you sense a general lack of respect for humanity, and zombies make a little more sense.

"The zombies themselves represent a kind of commentary on modernity," Schlozman says. "We're increasingly disconnected. That might be the current appeal.”
Yes, why study zombies?

I thought that was a pretty good question, so I asked my students to write a short response to it. (Frankly, I don’t like zombies at all, but I’m fascinated by the psychology of humans’ reactions to the subject. I’m also fascinated with the many different ways they have been portrayed.)

Here are their responses (edited for length).

1. Fears of scientific advancement aside, fears about war, disease, social collapse, violence, crime, and corporate evil are popular themes in modern fiction. If you combine these fears, you get a zombie apocalypse.
2. It feeds into that part of the human brain that is scared that there is something out there that they can’t get away from. That their friends and family could one day turn against them, that their lives could be shattered in an instant.
3. To me, it is silly and lacks any value that may deem it worthy of my thoughts.
4. The zombies are pointless. You, ma’am, are correct. . . . It’s stupid because there are obviously no zombies, much like there are obviously no sparkly vampires.
5. Zombies are fun to write about because they’re unpredictable.
6. I don’t think they are such a big deal. I want something more real.
7. Because it could possibly happen. It’s not like vampires or magic; it’s a virus.
8. I enjoy the thought of the chase and having to rely on my own ingenuity (instead of “cushy” technology) to survive.
9. A zombie could be your friend, your neighbor, even your mother, and that’s what is so appealing. A ghost isn’t recognizable.
10. They represent the part of us that we are scared of and don’t want to become.
11. They are the symbol of dangerous and ferocious monsters. Yet they were once human beings. The conflict of their dual identities fascinates people.
12. I really don’t understand either. They are fascinating but I don’t understand the obsession.
13. I definitely think that writing an essay on the subject that was intellectual, was quite ironic and entertaining. Thinking about how one could survive if such a phenomenon occurred actually requires more intellectual and complex inquiry than most other subjects.
14. Zombies are a representation of the animal side of human nature. I like to watch how they become carnivorous and less intelligent, and how people react to this new “species.”
15. Boys are fascinated with zombies because of Call of Duty. I’m not too sure why girls are.
16. It’s a morbid, disturbing concept, but our natures make us naturally attracted to those things.
17. It’s not that we’re fascinated with them, but it’s an abnormal topic that makes us think and disrupts the routine of boring topics.
18. The topic of zombies is much more interesting than what we are usually asked to write about in school. This essay allowed us all to be creative.
19. Everything else in most people’s lives is very concrete, very routine; and as a result, very dull. But zombies and other similar creatures, because they are not real, allow people to imagine something different, something new – a novelty.
20. Why does any fad seem fascinating?
21. Zombies don’t exactly represent death, but more what happens after death. The fascination with them mainly comes from fear: the fear of becoming one, the fear of wandering around mindless, primitive, and hungry with no other thoughts than to feed and no other victims than humans.

Marla Delapenha  "Emancipate yourselves from mental slavery. None but ourselves can free our minds." - Bob Marley