

Death by Fasting

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"Death by Fasting" sets a scientific process, how the body reacts to prolonged starvation, within a political context, the hunger strike. Here, the hunger strikers are members of the Irish Republican Army held prisoner by the British. Bobby Sands was the first prisoner to die. Graf's essay appeared more than ten years ago, in Science 81, a publication of the American Association for the Advancement of Science, but the troubles in Ireland live on.

- 1 Bad news travels fast in Northern Ireland. Women and children blow whistles and bang dustbin lids on the pavement to telegraph a grim message: Every 11 days, on the average, a convicted member of the Irish Republican Army dies of starvation in the Maze prison near Belfast.
- 2 The hunger strike, a strategy IRA inmates are using to pressure their British overlords to reclassify them as political prisoners rather than common criminals, has caught the attention of the entire world. IRA leaders advise prisoners when to begin their fasts so that they will have the most political impact. Last winter, for example, the IRA planned 27-year-old Bobby Sands's fast so that he would die on the anniversary of the bloody Easter Rising of 1916 that led to the original partitioning of Ireland.
- 3 But Sands did not die on Easter. The human body does not conform precisely to timetables calculated for an "average" person, one who can survive fasting for 50 to 70 days, assuming he has water. Sands lasted 66 days.
- 4 Early in a fast, the body is comparatively profligate in burning its fuels. A normal, nonfasting person's principal source of energy is sugar, or glucose. The brain in particular needs glucose to function, but the body's reserve of it, stored in the liver in the form of a starchy carbohydrate glycogen, is exhausted in less than a day. When that supply runs out, the body makes its own glucose from the next most available source, protein in the muscles. If protein were the only energy supply, however, vital muscles in the heart, kidneys, spleen, and intestines would quickly be destroyed, and death would follow soon thereafter.

So as early as the first day of the fast, certain tissues begin supplementing their glucose supply with energy derived from fat, which comprises 15 to 20 percent of an average person's body weight. By the third day, when most people lose their hunger pangs, the brain is getting most of its energy from ketone bodies, which are formed in the liver from fatty acids. 5

To protect its vital organs and to conserve energy, the body makes a lot of other adjustments as well. The metabolic rate drops, pulse slows, blood pressure lowers. A starving person feels chilly. The body's thermostat cranks down a notch, an energy-saving strategy akin to maintaining a house at 65 degrees during the winter. According to reports from Belfast, the hunger strikers spend a lot of time in bed under sheepskin rugs. 6

Fasting produces a lot of side effects: anemia, dry skin, ulcerated mouth, abnormal heart rhythm, erosion of bone mineral, difficulty in walking, blindness, loss of hearing, speech impairment, decrease in sexual drive. Those who visited Bobby Sands in his final days were shocked at his sunken cheeks, emaciated frame, and rapidly thinning brown hair. 7

In the last stages of starvation, when fat is depleted, the body draws exclusively from its protein reserves. At the end of his fast, when his insulating muscle was consumed, Sands was gently laid on a waterbed to cushion his frail skeleton. 8

"The body essentially digests itself," says Arnold E. Andersen, a psychiatrist at Johns Hopkins Medical Institution who treats women suffering from anorexia nervosa, an affliction of young women who exist on a semistarvation diet. "There is a point at which the organs simply stop functioning." Autopsies of the Irish prisoners turn up no single cause of death. 9

As hunters and gatherers, our ancestors adapted to survive when harvests were poor. But the body's heroic efforts to save itself while awaiting better nutritional times simply cannot outlast the determined resolve of the Irish hunger strikers. 10

Thesis and Organization

1. Process essays emphasize how something happens, but other concerns such as who, what, when, where, and why are also apt to be important. Where in this essay does the author first bring out where? Who? What? *Why*? What device does she use to indicate when?

■ POINTERS FOR USING PROCESS

Exploring the Topic

1. **What kind of process are you presenting?** Is it a practical, "how-to" one? A historical one? A scientific one? Some mixture of types?
2. **What steps are involved?** Which are crucial? Can some be grouped together? Under what headings can they be grouped?
3. **What is the sequence of the steps?** Are you sure that each step logically follows the one before it?
4. **How familiar is your reader with your subject?** Within each step (or group of steps), what information does the reader need to know? What details can you use to make that information come alive? What examples? What connections can you make to what the reader *does* know?
5. **Is setting or context important?** If so, what details of the setting or context do you want to emphasize?
6. **What is the point you want to make about the process?** Is your point an assertion? Will it interest the reader?

Drafting the Paper

1. **Know your reader.** Using two columns, list what your reader may know about your topic in one column and what your reader may not know in the other. If you are writing about a practical process, figure out what pitfalls your reader may fall into. If you are writing about a historical or scientific process, make sure your diction suits your audience. Be on the lookout for events or actions that need further explanation to be understood by a general audience. If your reader is apt to have a bias against your topic, know what the bias is. If your topic is familiar, shape your first paragraph to enlist the reader's interest; if the topic is unfamiliar, use familiar images to explain it.
2. **Know your purpose.** If you are writing to inform, make sure you are presenting new information and that you are making an assertion about your topic. Don't dwell on information that the reader already knows if you can possibly avoid it. If you are writing to persuade, remember that you do not know whether your audience agrees with you. Use your persona to lend credibility to what you say, and use detail to arouse your reader's sympathies.
3. **Present the steps in their correct sequence.** Make sure that you have accounted for all the important steps or stages in the process and that they are set out in order. If two or more steps occur at the same time, make sure you have made that clear. If time is crucial to your process,

- see that you have emphasized that point. If, on the other hand, the exact time at which an event occurred is less important than the event, make sure you have stressed the event and have subordinated the idea of time.
4. **Use details and examples.** Whether you are writing an informative or a persuasive essay, use details and examples that support your purpose. If you are explaining how to make your own ice cream, for example, draw upon what the reader knows about various commercial brands and flavors to bolster your case for making your own. After all, your reader may not want to take the time and trouble for that process and therefore may have to be enticed into trying it. Choose details and examples that combat your reader's attitude if that attitude is apt to be a negative one.
 5. **Double-check your transitions.** First mark your stages with obvious transitions or with numbers. After you have turned your notes into a working draft, review the transitions you have used, checking to see that they exist, that they are clear, and that they are not overly repetitious or obvious. Make sure each important stage (or group of stages) is set off by a transition. See if you can indicate shifts by using tense or words and phrases that don't call attention to themselves as transitions.
 6. **Make a point.** What you say about a subject is far more interesting than the subject itself, so even if you are writing a practical process essay, make sure you have a point. A paper on a topic such as "how to change a tire" becomes unbearable without a thesis. Given an assertion about changing a tire—"Changing my first flat was as horrible as I had expected it to be"—the paper at least has a chance.