

Editor's Note

In “Costly Coasts,” Alex Schmotter opens with a descriptive narrative in which he uses “you.” How did you react to his “you”? Were you comfortable putting yourself in the shoes of the person he is describing, or did you feel that the “you” must be someone else and not, in fact, you? What background information do you need to know in order to understand what he’s talking about in the introduction?

This argument uses quite a bit of *logos*. Does it also appeal to the reader’s emotions? If so, where does this happen, and which emotions are invoked in the reader? Part of the essay’s persuasiveness has to do with the way in which the author addresses the opposition. Try to find where this happens. What tone does Schmotter take towards the opposing side? How effective is his rebuttal and why?

Costly Coasts

Alex Schmotter

Children laugh as they frolic in the waves crashing onto shore. A group of college students shout as a friend makes a diving save in a beach volleyball game. The sun warms your face as your nostrils fill with organic sea breeze. You run your toes through the blackened sand, and observe the thick layer of tar that has accumulated on the bottom of your feet. You are reminded of the 1969 oil spill that occurred when a drilling induced crack erupted and released over three million gallons of oil into the Pacific Ocean, six miles off the shore of Santa Barbara County. You gaze out into the ocean, and see a chain of odd looking islands—man made, oil harvesting islands.

Today, oil platforms continue to dot the coastlines of America, but bans have been placed limiting them to the waters of central California and the Gulf of Mexico. Oil companies and legislators alike are trying to pass laws that will allow for the expansion of off shore drilling sites along the Pacific, Atlantic, and Gulf coasts. In a 2008 telephone survey of over 500 Americans, about 70% supported the idea of offshore drilling (Rooney). 70% of our brothers and sisters, mothers and fathers, have been misinformed about the costs and benefits of today’s leading energy debate. Those in favor of offshore drilling, including former President George W. Bush, believe that offshore drilling will help the United States break its dependence on foreign imports and protect the U.S. economy from volatility in the global oil market. They also believe that the bans prohibiting offshore drilling, which were put into effect decades ago

after the Santa Barbara disaster, are outdated and should be lifted because of technological improvements of oil extraction equipment (Rooney). Wouldn't it be great if the solution to our nations' energy dilemma were this simple? However convenient it may be, offshore drilling is not the answer. Despite advancements in technology, the environmental risks associated with offshore drilling are high, and the economic relief that the consumer will see at the pump will be negligible.

It's easy to be misled on the environmental issues involved with even contemporary offshore drilling. The incredible technology involved in the drilling process has dramatically reduced the chance of another oil spill on the magnitude of the 1969 Santa Barbara spill. On the surface, the statistics sound pretty good. Modern oil platforms have automatic shut off valves that plug up oil wells at the first suspicion of a problem. These new rigs are tested to be 99.99% effective (Lamb). But what about that one in ten thousandth oil platform that does malfunction? When the potential number of active wells planned for construction is on the scale of tens of thousands, this malfunction rate suddenly loses its persuasive power. It is easy for someone in Minnesota to say "so what's the big deal with an oil spill anyways? Can't they just clean it up?" For this person, this is a legitimate question. Those of us that have witnessed the effects of an oil spill first hand, however, know that the resolution is not that simple. Everyone has heard of accidents happening in the harvesting and transportation of oil, but they do not necessarily understand their full effects. When oil is spilled into an aquatic environment, the oil and the water do not mix. Oil is less dense than water and therefore floats on the surface like a black blanket of death. Aquatic mammals like dolphins and whales that must come to the surface to breathe are the first to go. They inhale oil through their blowholes, and die of lung hemorrhages. Birds that feed on fish and other marine organisms are next. When they dive into the oil covered water to hunt, they get tar in their feathers, and lose their ability to fly. They die slowly of exhaustion and starvation. Marine plants get coated in oil and lose their ability to exchange gas with the environment. When plants shrivel up and die, their effect is felt all the way up the food chain. Besides effecting rare oceanic organisms, fishing supply decreases, which causes its own economic issue. The damage done by catastrophic oil spills is devastating, but it is only the beginning of the overall environmental destruction that will result from offshore drilling.

Oil can be found in pockets underneath the earth's crust, but it is not everywhere. Before drilling for oil, it must be located. Using the guess and check method of drilling in random locations with crossed fingers of finding liquid gold has become outdated and is no longer economically or environmentally feasible (Jervis). New

technology utilizes seismic waves to locate sub oceanic oil fields. The benefits of this process include a reduction of direct habitat destruction on the seafloor, as tests are performed from boats on the ocean's surface (Lamb). The downside however, is the effect that seismic waves have on sea mammals. Many sea mammals such as whales and dolphins have evolved the ability to navigate using echolocation (Lamb). The seismic wave frequencies unfortunately interfere with the output frequencies involved in echolocation, and cause disorientation of sea mammals. ExxonMobil was recently forced to suspend sub oceanic oilfield exploration efforts near Madagascar after more than 100 whales beached themselves due to seismic interference (Lamb). I am not accusing the drilling companies of being blind to environmental issues, clearly this is not the case because they could easily be causing even greater harm to ocean life. The effort to make oil harvesting environmentally sound is there, but the challenge is incredible, arguably impossible. The natural world operates in delicate equilibrium like a complex mathematical equation, and if any one variable in the equation is altered, then the rest of the variables will be affected.

Despite the impressive technological improvements made on oil extraction machinery in recent years, some negative effects are simply unavoidable. Whenever oil is extracted from beneath the ocean, other compounds are inevitably brought up as well (Lamb). When a hole is drilled into an undersea oil reservoir, toxins such as lead, mercury, arsenic, and other poisonous compounds are released from captivity and seep out into the ocean and environment (Lamb).

Furthermore, the nearly flawless technology available for oil drilling does not affect the risks associated with manual labor of offshore drilling. The probability of another oil leak due to equipment malfunction like that of Santa Barbara in 1969 has decreased dramatically, but human error will never be overcome. Even if a platform were 100% spill proof where machinery and robotics are the driving forces, the oil must be transported from the rig to the main land for processing. The most common method for transporting oil over bodies of water is via tanker ship. No matter how fool proof the technology becomes, humans will ultimately be the driving force behind the operation of the ship, and humans do make mistakes (Wangness). Marine transportation of oil recovered by offshore drilling facilities accounts for nearly 1/3 of all oil spills worldwide. The Mineral Management Service predicts there will be no less than one oil spill a year of 1,000 barrels or more in the Gulf of Mexico over the next 40 years. A spill of 10,000 barrels or more can be expected every three to four years (Lamb). If the ban on offshore drilling expansion is lifted, then drilling will expand into natural reserves such as the Alaskan coastline, where some of the world's most unique and endangered wildlife lives (Wangness). In time, an oil tanker

accident is very possible. The effects that even a small accident would have on the wildlife in these areas would be tremendous.

Now what is it that so powerfully motivates people to support increased offshore drilling? Many people believe that if we can increase our domestic oil production then we will be more independent as a country and gas prices will decrease immediately. In reality, however, domestic oil harvesting will not rid the United States of its dependence on other countries, and gas prices will be affected on the scale of a few cents per gallon at most. What many economists fail to accept is the fact that oil is traded on a global market. "Suppose the U.S. produced all its oil domestically," said Robert Kaufmann, director of the Center for Energy and Environmental Studies at Boston University. "Do you think oil companies would sell oil to U.S. consumers for one cent less than they could get from French consumers? No. Where oil comes from has no effect on price" (Wangness). There are an estimated 18 billion barrels of oil that could be obtained off the coasts of the United States. At best, the United States could produce two to four million barrels of additional oil per day. The world's production is currently at about 86 million barrels per day, nearly a quarter of which is consumed by the U.S. (Jervis). The additional three to five percent is not enough to dramatically shift the supply demand and effect prices. The consumers would see little to no price difference. To put the amount of obtainable oil present off American coasts into perspective, the total amount of oil available in the offshore oil fields would be just enough to fuel our country at current consumption for about two and a half years. Then what?

A common misconception is that offshore oil harvesting would begin immediately upon approval by the government. Realistically, however, oil platforms are enormous and extremely precise. Building an oil rig is an incredibly timely process. If production of offshore drilling platforms began today, it would be at least 10 to 12 years before we would see the first drop of oil they produced. By this time, wouldn't we have hoped to have harnessed a renewable energy source? Instead of spending billions of dollars building offshore oil platforms, the money should be invested in alternative energy research. Large alternative energy projects could stimulate the economy immediately by opening thousands of middle class jobs right here at home.

As first glance, offshore drilling seems like a no brainer. It would only make sense that we get as much fossil fuel as we can out of the Earth, why let it go to waste? If we have the oil we need right here at home, then we don't need to rely on other countries, right? And with so much oil available, price at the pump would have to decrease. Unfortunately, a closer look at offshore drilling procedures and economics reveals a different conclusion. Besides vast environmental devastation that it would cause, offshore drilling will not decrease our dependence on other countries, and it will fail to

deliver desired economic incentives for consumers. The cost of building these facilities would be tremendous, so why not use the money to invest in alternative energy systems? Science is on the verge of a breakthrough with alternative energy, maybe all that it needs is this one little push. It is only a matter of time before fossil fuels are depleted completely, so why not get ready now?

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