Social Stratification of Pollution Across America: Analysis and Economic Perspectives

By: William Nichols

Abstract: The poor and minorities in our society experience a disproportionate amount of pollution in their neighborhoods and homes. The following work defines and analyzes the environmental justice movement, the types of pollution with which these people live, the evidence and reasons why they experience more pollution, and an economic perspective of the entire situation. The purpose of this essay is not to analyze whether this is ‘right’ or ‘wrong’, but rather to provide an economic and ethical interpretation of the issues.

Main work:

Many studies have been conducted about the reasons why highly polluting industries tend to be located more frequently in low income and minority neighborhoods across the United States.¹ The research of census data and other gross economic studies have proven that, in general, low income neighborhoods experience more of all forms of pollution (including air and water pollution, as well as toxic waste pollution) than do neighborhoods that maintain higher levels of income (Morello-Frosch, 478). Further, studies have also proven that while holding income constant, minority neighborhoods (specifically African American and Hispanic) experience higher levels of pollution than non-Hispanic, white neighborhoods (Bullard and Wright, 72). There are many reasons that have contributed to this situation in the United States today including housing market discrimination, local job opportunities for the low income and minority families, environmental regulations, and the simple fact that land near polluting industries is cheap compared to environmentally sound areas. The following will discuss these reasons in detail and provide various perspectives on the ethics of this situation experienced by millions of people across the nation.

It is important to understand the various types of pollution experienced by minority and low income neighborhoods. Three main forms of pollution exist in these areas: air

¹ Refer to the articles listed in Works Cited by the following: Bullard, Bullard and Wright, Dryzek, Morello-Frosch, Pastor, Pellow, Schill and Watcher, and Willers.
pollution, water pollution, and hazardous waste. Rachel Morello-Frosch, professor of Health and Human Sciences at San Francisco State University, writes, “Pollution sources are not simply limited to large industrial manufacturing facilities, but also include transportation corridors as well as smaller manufacturing and service firms that are an integral part of urban systems” (Morello-Frosch, 485). Further, the neighborhoods in question assume a disproportionately large part of the solid and liquid waste treatment facilities across the nation. These incinerators and treatment plants impose various air and water pollutants on the communities in which they are located. Another siting issue facing minority and low income neighborhoods is the increasingly large presence of the nation’s landfills. According to Bullard and Wright, “Finding suitable sites for municipal landfills has also become a critical problem nationwide mainly because people are reluctant about living near a facility where garbage is dumped. The standard public reaction has been ‘not in my neighborhood’” (Bullard and Wright, 74). Both private and government-run waste disposal companies have elected to locate an increasing number of their landfills near neighborhoods with predominantly minority and low income residents.

Before continuing onto the evidence that supports the assertions above, it is necessary to define some terms. Environmental racism is defined as, “Any policy, practice, or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race or color” (Bullard, 497). There is a distinction between this and environmental classism which applies to low income families as opposed to race.

The following discusses evidence of environmental racism and classism occurring and the reasons why they occur. Studies in neighborhoods across the nation have analyzed proximity to emission sources, exposure to polluting substances in the air and water, and differences in regulatory enforcement across regions. Research has shown that, “Much of the
evidence points to a pattern of disproportionate exposure to toxics and associated health risks among communities of color and the poor, with racial differences often persisting across economic strata” (Morello-Frosch, 478). Some factors that contribute to this reality include job limitations, household income, discriminatory housing development policies, and land prices. The minority and low income families that experience the brunt of the pollution in this country have become economically dependant on the industries that pollute their neighborhoods because many rely on the income to support their families (Bullard and Wright, 71). Further, white collar workers, including investors and managers, make substantially more money because of their higher marginal product. This enables them to move away from the factory, landfill, or whatever polluting industry for which they work.

Real estate discrimination also played a large role in the segregation of minority and low income families during the last half of the 20th Century. “While mediating the national and international capital flows that have fueled the growth of large cities in the USA, the banking system long discouraged the infusion of credit to communities of color through ‘redlining’ practices” (Morello-Frosch, 486). The legal definition of ‘redlining’ is, “A discriminatory practice whereby lending institutions refuse to make mortgage loans, regardless of an applicant's credit history, on properties in particular areas in which conditions are allegedly deteriorating” (West’s Encyclopedia of American Law). This does not occur very often at the present time because of the Equal Opportunity Housing Act that reformed mortgages within the banking system; however, the effects of years of housing discrimination can still be seen today. Some propose that even though many workers during the 1970s and 1980s had lucrative jobs in their respective industries enabling them to move away from the polluting industry, discrimination in the housing markets ensured that they would remain in the highly polluted neighborhoods (Schill and Watcher, 147). Therefore, the minority and low income
neighborhoods did not appreciate in value nearly as fast as white communities, further continuing this cycle of poverty.

To add another event to this cycle, many poor areas would experience rapid growth in industry followed by an abandonment of factories and plants. Frequently, “These processes lead to economic dislocation and heighten the vulnerability of communities of color who are hit by rapid expansion of polluting industries at one moment, only to be abandoned later on in deindustrialized wastelands where environmental hazards from historical contamination persist and economic revitalization opportunities are limited” (Morello-Frosch, 489). Soon afterwards, industry restructuring would usually be characterized by the absence of unions in the new workplaces, further adding to the poverty in the area.

In this discussion, it is necessary to bring up the question of whether the polluting industries brought about nearby minority and low income neighborhoods, or vice versa. Research has been done that shows both cases occurred. Morello-Frosch writes, “Case studies showing intentional community targeting, in which polluting facilities are placed in minority and poor neighborhoods are considered evidence of potential discrimination. However, cases of ‘minority move-in’, where the people move into already polluted neighborhoods, are portrayed as a simple reflection of free market dynamics and fail to meet the intent requirement of environmental discrimination” (Morello-Frosch, 480). Later in her work she asserts that industry frequently creates the metropolis as we know it today. Willers makes the conclusion that the placement of a polluting industry in one’s neighborhood effectively brings property values down in the area, thus attracting low income and minority families (Willers, 12). Both sides can be argued effectively.

An informational component also affects the relationship of polluting industries with surrounding neighborhoods. “In the ideal state, resources are fully mobile and perfect
information is available. That is, all of the risks associated with a particular facility are completely known, and people are able to move freely to or away from areas where noxious facilities are located, given their budget constraints” (Willers, 5). This simply is not the case in the real world. When people are not fully informed, they are not able to make the informed economic decisions that affect where they live.

In the discussion of pollution in poor and minority neighborhoods, it is integral to have an understanding of the environmental justice movement and the position it takes on the situation. Environmental justice stems from the social justice movement which has philosophical backgrounds dating back to Plato’s *The Republic* in which he states that justice is “Giving to each what is owed” (Plato, Book I). In this classic work, Plato refutes the idea that justice is defined by whoever has the most power in society (‘Social Justice’ on Wikipedia). Many other philosophers, including Machiavelli and Descartes, have expanded upon this concept of social justice (Please refer to Additional Readings at the end of this work). More recently, Morello-Frosch writes, “Early environmental justice struggles grew out of the Southern United States in predominantly Black communities and later in Latino barrios of the Southwest and on Native American lands – regions with a brutal legacy of slavery, conquest, ecological devastation, and political disenfranchisement of people of color” (Morello-Frosch, 481-482). The movement gained momentum in the 1980s when the General Accounting Office and the United Church of Christ Commission for Racial Justice both released research that claimed environmental racism was taking place in American cities (U.S. General Accounting Office, 1983; United Church of Christ, 1987). Both of these publications served as an impetus for the environmental justice movement. Environmental justice theory asserts that both groups, whether minority or low income, experience discrimination in the form of higher levels of pollution than do affluent whites in America.
(Pellow et al, 425). They also assert that low income minorities are discriminated upon by polluting industries more than low income whites (Bullard and Wright, 75).

Economists have a different perspective on the situation at hand. We believe that there is a certain amount of utility that the poor and minorities receive from the presence of polluting industries. Because of cheaper land values, most would rather have a home in a polluted neighborhood than not have a home at all. There is a certain amount of efficiency increase that is created by the polluting industries being located in poor and minority neighborhoods. This can be seen as a Pareto improvement (Gerlagh and Keyzer, 319). As stated earlier, many of these poor and minority people are employees of the very industries that pollute the areas where they live. Again, most would rather have a job near their home than not have a job at all, even if the job pollutes their neighborhood. Environmental concerns were developed by people who had enough time and money to be concerned with their environment, rather than putting the next meal on the table or having a place to live. Thus, there is more pollution in poor and minority neighborhoods because they have a lower willingness to pay for a cleaner environment. The lower one’s family income, the more pollution they are willing to put up with; while the higher the income, the more one is willing to pay for a pollution-free environment (Gray, et al, 522). Therefore, it is a fact that polluting industries are highly represented in low income and minority areas. However, these polluting industries provide a means of income and housing for some who wouldn’t have food or a home otherwise.

In the analysis of pollution in low income and minority neighborhoods, it is important to understand the background of the environmental justice movement, the facts proving that this occurs, the reasons why, and the types of pollution. I have covered this as well as the effects that it has upon the community, the informational aspects of the debate, and a
discussion about whether the poor and minority neighborhoods or the polluting industries came first. However, I must conclude the essay with some final thoughts that cannot be overlooked. First, the environmental justice movement focuses mainly on environmental discrimination based on race as opposed to income. Second, poor and minority neighborhoods experience not only higher levels of pollution, but also many other negative aspects of life including higher crime, poor schools, and more gangs. The environmental justice movement does not include these in any of its discussions because it focuses solely on environmental concerns. In many ways, these social injustices can be worse than pollution. Thus is poverty, in general, to blame for the extensive injustices faced by poor and minority neighborhoods? This is outside the scope of this essay but is very interesting to note as there is much room for further discussion in the future.
Works Cited and Additional Readings


http://www.philosophypages.com/hy/2g.htm


The most comprehensive statement of Plato's mature philosophical views appears in Πολιτεία (The Republic), an extended treatment of the most fundamental principles for the conduct of human life. Using the character "Socrates" as a fictional spokesman, Plato considers the nature and value of justice and the other virtues as they appear both in the structure of society as a whole and in the personality of an individual human being. This naturally leads to discussions of human nature, the achievement of knowledge, the distinction between appearance and reality, the components of an effective education, and the foundations of morality.

Because it covers so many issues, The Republic can be read in several different ways: as a treatise on political theory and practice, as a pedagogical handbook, or as a defence of ethical conduct, for example. Although we'll take notice of each of these features along the way, our primary focus in what follows will be on the basic metaphysical and epistemological issues, foundational questions about who we are, what is real, and about how we know it. Read in this fashion, the dialogue as a whole invites us to share in Plato's vision of our place within the ultimate structure of reality.

What is Justice?
Book I of *The Republic* appears to be a Socratic dialogue on the nature of **justice** (Gk. δικαιωσύνη [dikaiōsunē]). As always, the goal of the discussion is to discover the genuine nature of the subject at hand, but the process involves the proposal, criticism, and rejection of several inadequate attempts at defining what justice really is.

The elderly, wealthy Cephalus suggests that justice involves nothing more than telling the truth and repaying one's debts. But Socrates points out that in certain (admittedly unusual) circumstances, following these simple rules without exception could produce disastrous results. (*Republic* 331c) Returning a borrowed weapon to an insane friend, for example, would be an instance of following the rule but would not seem to be an instance of just action. The presentation of a **counter-example** of this sort tends to show that the proposed definition of justice is incorrect, since its application does not correspond with our ordinary notion of justice.

In an effort to avoid such difficulties, Polemarchus offers a refinement of the definition by proposing that justice means "giving to each what is owed." The new definition codifies formally our deeply-entrenched practice of seeking always to help our friends and harm our enemies. This evades the earlier counter-example, since the just act of refusing to return the borrowed weapon would clearly benefit one's friend. But Socrates points out that harsh treatment of our enemies is only likely to render them even more unjust than they already are. (*Republic* 335d) Since, as we saw in the *Phaedo*, **opposites invariably exclude each other**, the production of injustice could never be an element within the character of true justice; so this definition, too, must be mistaken.

**The Privilege of Power**

At this point in the dialogue, Plato introduces Thrasymachus the sophist, another fictionalized portrait of an historical personality. After impatiently dismissing what has gone before, Thrasymachus recommends that we regard justice as the advantage of the stronger; those in positions of power simply use their might to decree what shall be right. This, too, expresses a fairly common (if somewhat pessimistic) view of the facts about social organization.

But of course Socrates has other ideas. For one thing, if the ruling party mistakenly legislates to its own disadvantage, justice will require the rest of us to perform the (apparently) contradictory feat of both doing what they decree and also doing what is best for them. More significantly, Socrates argues that the best ruler must always be someone who knows how to rule, someone who understands ruling as a craft. But since crafts of any sort invariably aim to produce some **external goal** (Gk. τελος [télos]), good practitioners of each craft always act for the sake of that goal, never in their own interest alone. Thus, good rulers, like good shepherds, must try to do what is best for those who have been entrusted to them, rather than seeking their own welfare. (*Republic* 342e)

Beaten down by the force of Socratic questioning, Thrasymachus lashes out bitterly and then shifts the focus of the debate completely. If Socrates does happen to be right about the nature of
justice, he declares, then it follows that a life devoted to injustice is be more to one's advantage than a life devoted to justice. Surely anyone would prefer to profit by committing an act of injustice against another than to suffer as the victim of an act of injustice committed by someone else. ("Do unto others before they do unto you.") Thus, according to Thrasymachus, injustice is better than justice.

Some preliminary answers come immediately to mind: the personal rewards to be gained from performing a job well are commonly distinct from its intrinsic aims; just people are rightly regarded as superior to unjust people in intelligence and character; every society believes that justice (as conceived in that society) is morally obligatory; and justice is the proper virtue (Gk. ἀρετή [aretē]) of the human soul. But if Socrates himself might have been satisfied with responses of this sort, Plato the philosophical writer was not. There must be an answer that derives more fundamentally from the nature of reality.

Is Justice Better than Injustice?

When Thrasymachus falls silent, other characters from the dialogue continue to pursue the central questions: what is justice, how can we achieve it, and what is its value? Not everyone will agree that justice should be defended as worthwhile for its own sake, rather than for the extrinsic advantages that may result from its practice.

It helps to have a concrete example in mind. So Glaucon recounts the story of Gyges, the shepherd who discovered a ring that rendered him invisible and immediately embarked on a life of crime with perfect impunity. The point is to suggest that human beings—given an opportunity to do so without being caught and therefore without suffering any punishment or loss of good reputation—would naturally choose a life of injustice, in order to maximize their own interests.

Adeimantus narrows the discussion even further by pointing out that the personal benefits of having a good reputation are often acquired by anyone who merely appears to act justly, whether or not that person really does so. (*Republic 363a*) This suggests the possibility of achieving the greatest possible advantage by having it both ways: act unjustly while preserving the outward appearance of being just, instead of acting justly while risking the outward appearance of injustice. In order to demonstrate once and for all that justice really is valuable for its own sake alone, Plato must show that a life of the second sort is superior to a life of the first sort.

Thrasymachus, Glaucon, and Adeimantus have given voice to a fundamental issue at the heart of any effort to improve human conduct by appealing to the principles of moral philosophy. If what I am morally required to do can (in some circumstances) be different from what I would choose do for my own benefit, then why should I be moral? Plato wrote the remainder of *The Republic* in an attempt to provide an adequate, satisfying answer to this question.
After Book I, the entire dialogue is pervaded by an extended analogy between the justice of individual human beings and the that of an entire society or city-state. Since the crucial elements of justice may be easier to observe on the larger scale (*Republic 369a*), Plato began with a detailed analysis of the formation, structure, and organization of an ideal state before applying its results to a description of personal life.

**Why We Form a Society**

Imagining their likely origins in the prehistorical past, Plato argued that societies are invariably formed for a particular purpose. Individual human beings are not self-sufficient; no one working alone can acquire all of the genuine necessities of life. In order to resolve this difficulty, we gather together into communities for the mutual achievement of our common goals. This succeeds because we can work more efficiently if each of us specializes in the practice of a specific craft: I make all of the shoes; you grow all of the vegetables; she does all of the carpentry; etc. Thus, Plato held that separation of functions and specialization of labor are the keys to the establishment of a worthwhile society.

The result of this original impulse is a society composed of many individuals, organized into distinct classes (clothiers, farmers, builders, etc.) according to the value of their role in providing some component part of the common good. But the smooth operation of the whole society will require some additional services that become necessary only because of the creation of the social organization itself—the adjudication of disputes among members and the defense of the city against external attacks, for example. Therefore, carrying the principle of specialization one step further, Plato proposed the establishment of an additional class of citizens, the guardians who are responsible for management of the society itself.

In fact, Plato held that effective social life requires guardians of two distinct sorts: there must be both soldiers whose function is to defend the state against external enemies and to enforce its laws, and rulers who resolve disagreements among citizens and make decisions about public policy. The guardians collectively, then, are those individuals whose special craft is just the task of governance itself.

**Training the Guardians**

In order to fulfill their proper functions, these people will have to be special human beings indeed. Plato hinted early on that one of their most evident characteristics will be a temperamental inclination toward philosophical thinking. As we've already seen in the *Apology* and in the *Phaedo*, it is the philosopher above all others who excels at investigating serious questions about human life and at judging what is true and best. But how are personal qualities of this sort to be fostered and developed in an appropriate number of individual citizens? (*Republic 376d*)

The answer, Plato believed, was to rely upon the value of a good education. (Remember, he
operated his own school at Athens!) We'll have an opportunity to consider his notions about higher education later, but his plan for the elementary education of guardians for the ideal state appears in Book III. Its central concern is an emphasis on achieving the proper balance of many disparate components—physical training and musical performance along with basic intellectual development.

One notable feature of this method of raising children is Plato's demand for strict censorship of literary materials, especially poetry and drama. He argued that early absorption in fictional accounts can dull an person's ability to make accurate judgments regarding matters of fact and that excessive participation in dramatic recitations might encourage some people to emulate the worst behavior of the tragic heros. (*Republic 395c*) Worst of all, excessive attention to fictional contexts may lead to a kind of self-deception, in which individuals are ignorant of the truth about their own natures as human beings. (*Republic 382b*) Thus, on Plato's view, it is vital for a society to exercise strict control over the content of everything that children read, see, or hear. As we will later notice, Aristotle had very different ideas.

Training of the sort described here (and later) is intended only for those children who will eventually become the guardians of the state. Their performance at this level of education properly determines both whether they are qualified to do so and, if so, whether each of them deserves to be a ruler or a soldier. A society should design its educational system as a means to distinguish among future citizens whose functions will differ and to provide training appropriate to the abilities of each.

**Divisions of the State**

The principle of specialization thus leads to a stratified society. Plato believed that the ideal state comprises members of three distinct classes: rulers, soldiers, and the people. Although he officially maintained that membership in the guardian classes should be based solely upon the possession of appropriate skills, Plato presumed that future guardians will typically be the offspring of those who presently hold similar positions of honor. If citizens express any dissatisfaction with the roles to which they are assigned, he proposed that they be told the "useful falsehood" that human beings (like the metals gold, silver, and bronze) possess different natures that fit each of them to a particular function within the operation of the society as a whole. (*Republic 415a*)

Notice that this myth (Gk. μυθος [mythos]) cuts both ways. It can certainly be used as a method of social control, by encouraging ordinary people to accept their position at the bottom of the heap, subject to governance by the higher classes. But Plato also held that the myth justifies severe restrictions on the life of the guardians: since they are already gifted with superior natures, they have no need for wealth or other external rewards. In fact, Plato held that guardians should own no private property, should live and eat together at government expense, and should earn no salary
greater than necessary to supply their most basic needs. Under this regime, no one will have any
venal motive for seeking a position of leadership, and those who are chosen to be guardians will
govern solely from a concern to seek the welfare of the state in what is best for all of its citizens.

Having developed a general description of the structure of an ideal society, Plato maintained that
the proper functions performed by its disparate classes, working together for the common good,
provide a ready account of the need to develop significant social qualities or virtues.

- Since the rulers are responsible for making decisions according to which the entire city will
  be governed, they must have the virtue of wisdom (Gk. σοφία [sophía]), the capacity to
  comprehend reality and to make impartial judgments about it.
- Soldiers charged with the defense of the city against external and internal enemies, on the
  other hand, need the virtue of courage (Gk. ἀνδρεία [andreia]), the willingness to carry out
  their orders in the face of danger without regard for personal risk.
- The rest of the people in the city must follow its leaders instead of pursuing their private
  interests, so they must exhibit the virtue of moderation (Gk. σωφροσύνη [sophrosúnê]),
  the subordination of personal desires to a higher purpose.

When each of these classes performs its own role appropriately and does not try to take over the
function of any other class, Plato held, the entire city as a whole will operate smoothly, exhibiting
the harmony that is genuine justice. (*Republic 433e*)

We can therefore understand all of the cardinal virtues by considering how each is embodied in
the organization of an ideal city.

<table>
<thead>
<tr>
<th><strong>Rulers</strong></th>
<th>Wise Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soldiers</strong></td>
<td>Courageous Actions</td>
</tr>
<tr>
<td><strong>Farmers, Merchants, and other People</strong></td>
<td>(Moderated Desires)</td>
</tr>
</tbody>
</table>

Justice itself is not the exclusive responsibility of any one class of citizens, but emerges from the
harmonious interrelationship of each component of the society with every other. Next we'll see
how Plato applied this conception of the virtues to the lives of individual human beings.

**The Virtues in Human Souls**
Plato: The Republic 1-4

Remember that the basic plan of the Republic is to draw a systematic analogy between the operation of society as a whole and the life of any individual human being. So Plato supposed that people exhibit the same features, perform the same functions, and embody the same virtues that city-states do. Applying the analogy in this way presumes that each of us, like the state, is a complex whole made up of several distinct parts, each of which has its own proper role. But Plato argued that there is ample evidence of this in our everyday experience. When faced with choices about what to do, we commonly feel the tug of contrary impulses drawing us in different directions at once, and the most natural explanation for this phenomenon is to distinguish between distinct elements of our selves. (Republic 436b)

Thus, the analogy holds. In addition to the physical body, which corresponds to the land, buildings, and other material resources of a city, Plato held that every human being includes three souls (Gk. ψυχή [psychē]) that correspond to the three classes of citizen within the state, each of them contributing in its own way to the successful operation of the whole person.

- The **rational soul** (mind or intellect) is the thinking portion within each of us, which discerns what is real and not merely apparent, judges what is true and what is false, and wisely makes the rational decisions in accordance with which human life is most properly lived.
- The **spirited soul** (will or volition), on the other hand, is the active portion; its function is to carry out the dictates of reason in practical life, courageously doing whatever the intellect has determined to be best.
- Finally, the **appetitive soul** (emotion or desire) is the portion of each of us that wants and feels many things, most of which must be deferred in the face of rational pursuits if we are to achieve a salutary degree of self-control.

In the Phaedrus, Plato presented this theory even more graphically, comparing the rational soul to a charioteer whose vehicle is drawn by two horses, one powerful but unruly (desire) and the other disciplined and obedient (will).

On Plato's view, then, an human being is properly said to be just when the three souls perform their proper functions in harmony with each other, working in consonance for the good of the person as a whole.

---

**Rational Soul** (Thinking)
Wisdom

---

**Spirited Soul** (Willing)
As in a well-organized state, the justice of an individual human being emerges only from the interrelationship among its separate components. (*Republic* 443d)

Plato's account of a tripartite division within the self has exerted an enormous influence on the philosophy of human nature in the Western tradition. Although few philosophers whole-heartedly adopt his *hypostasization* of three distinct souls, nearly everyone acknowledges some differentiation among the functions of thinking, willing, and feeling. (Even in *The Wizard of Oz*, Dorothy's quest depends upon the cooperation of her three friends—Scarecrow, Lion, and Tin Woodsman—each of whom exemplifies one of the three aspects of human nature.) Perhaps any adequate view of human life requires some explanation or account (Gk. λόγος [logos]) of how we incorporate intellect, volition, and desire in the whole of our existence.

In the context of his larger argument, Plato's theory of human nature provides the foundation for another answer to the question of why justice is better than injustice. On the view developed here, true justice is a kind of good health, attainable only through the harmonious cooperative effort of the three souls. In an unjust person, on the other hand, the disparate parts are in perpetual turmoil, merely coexisting with each other in an unhealthy, poorly-functioning, dis-integrated personality. Plato developed this theme in greater detail in the final books of *The Republic*. 